E N G L I S H
for Study and Work
A Coursebook for Mining Engineers

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Part I
In-class Activities

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Міністерство освіти і науки України
НАЦІОНАЛЬНИЙ ГІРНИЧИЙ УНІВЕРСИТЕТ

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АНГЛІЙСЬКА МОВА
ДЛЯ НАВЧАННЯ І РОБОТИ

Навчальний посібник з англійської мови
за професійним спрямуванням для студентів і фахівців галузі знань
0503 Розробка корисних копалин

Том І
Завдання та вправи для аудиторної роботи

Рекомендовано Міністерством освіти і науки України
як навчальний посібник для студентів вищих навчальних закладів
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О. Д. Швєць, доц. (INTRODUCTION, Part I In-Class Activities: Module 3, Module 5 (Units 2 - 4, 7-9, 13) Index, Part II Self-study Resources: Module 3, Module 5 (Units 5.1 (5.1.2, 5.1.3), 5.2, 5.4, 5.5).
Н. В. Поперечна, доц. (Part I In-class Activities: Module 4, Module 5 (Units 1, 5, 6, 10 -12), Part II Self-study Resources: Module 4, Module 5 (Units 5.1 (5.1.1, 5.1.4), 5.3).

У посібнику представлені всі види діяльності студентів з вивчення англійської мови, спрямовані на розвиток мовної поведінки, необхідної для ефективного спілкування в академічному та професійному середовищах. Навчальний посібник містить завдання і вправи, типові для різноманітних академічних та професійних сфер і ситуацій. Структура організації змісту – модульна і охоплює загальні мовленнєві вміння інженерів. Зразки текстів – автентичні, взяті з реального життя, містять цікаву та актуальну інформацію про видовневу промисловість, особливості навчання за кордоном, традиції та звичаї країн, мова яких вивчається. Ресурси для самостійної роботи (Том II) містять гласівні терміни, завдання та вправи для розвитку словникового запасу та розширення діапазону функціональних зразків, необхідних для виконання певних функцій, та завдання, які спрямовані на розвиток навичок самооцінювання і організації свого навчання. Граматичні явища і вправи для їх застосування наводяться в томі III. Наприкінці кожної частини наведено алфавітно-предметні показники. Багато ілюстрацій та різних візуальних засобів подання інформації.

Навчальний посібник призначений для студентів технічних університетів гірничого профілю.

Може використовуватися для самостійного вивчення англійської мови викладачами, фахівцями і науковцями різних інженерних галузей.

A coursebook includes all the activities of students’ work at ESP course aimed at development of language behaviour necessary for effective communication of students in their study and specialism areas. The tasks and activities given in the coursebook are typical for students’ academic and professional domains and situations. The content is organized in modules that covers generic job-related language skills of engineers. The authentic texts taken from real life contain interesting up-to-date information about mining, peculiarities of study abroad, customs and traditions of English-speaking countries. Pack of self-study resources given in Part II contains Glossary of mining terms, tasks and activities aimed at developing a range of vocabulary necessary for mining, different functions and functional exponents to be used in academic and professional environment as well as tasks developing self-awareness, self-assessment and self-organisation skills. Testing points for different grammar structures are given in Part III. Indices at the end of each part easily the use of the coursebook. The coursebook contains illustrations, various samples of visualizing technical information.

The coursebook is designed for ESP students of non-linguistic universities. It can be used as teaching/learning materials for ESP Courses for Mining Engineers as well as for self-study of subject and specialist teachers, practicing mining engineers and researchers in Engineering.
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ПЕРЕДМОВА

Навчальний посібник «Англійська мова для навчання і роботи» – це перша спроба розробити навчально-методичний комплекс для забезпечення навчального процесу з дисципліни «Англійська мова za професійним спрямуванням», які б відповідали державному та галузевому стандартам і забезпечили б українських викладачів необхідним інструментом для навчання студентів напряму підготовки «Інжиніринг», в цілому, та зокрема, галузі знань 0503 «Розробка корисних копалин».

В навчальному комплексі врахований досвід підготовки викладачів/тренерів англійської мови вищих навчальних закладів України в рамках проекту з розробки Національної програми з англійської мови за професійним спрямуванням за ініціативою Міністерства освіти і науки України та за підтримки Британської Ради в Україні. Навчальний посібник розроблено за результатами досвіду викладання авторами англійської мови в Національному гірничому університеті (м. Дніпропетровськ) і досвіду їх навчання у Великій Британії (Школа Міжнародної освіти університетського коледжу «Marjon», м. Плімут, Університет Екзетера) та США (Університет Джона Хопкінса, м. Вашингтон, округ Колумбія).

Посібник розглядається як система, яка охоплює всі види діяльності студентів з вивчення англійської мови як в аудиторії під час практичних занять, так і під час самостійної роботи, що полегшує використання його студентами і викладачами.

Навчальний посібник складається з трьох частин, що відповідають змісту типового курсу англійської мови за професійним спрямуванням для бакалаврів галузі знань «Інжиніринг»: Том I «In-class Activities» (Завдання та вправи для аудиторної роботи), Том II «Self-study Resources» (Ресурси для самостійної роботи), Том III «Grammar Review and Practice» (Практикум-довідник з граматики).
Зміст посібника розроблено таким чином, щоб допомогти студентам оволодіти англійською мовою на рівні В2, що необхідно для освітньо-професійного рівня бакалавра. Він охоплює професійний і академічний зміст (галузь знань тобто Розробка корисних копалин), ситуативний зміст, який наближено до реального життя та прагматичний зміст: практичні та корисні вміння та навички, включаючи вміння використовувати інформаційно-комунікаційні технології. Структура змісту – модульна. Модулі розроблено у відповідності до вимог стандартів з вивчення іноземних мов за професійним спрямуванням.

Перші два томи посібника написані групою авторів, кожний з яких відповідав за певний модуль:
Модуль 1 ‘Socialising in Academic and Professional Environment’ (Спілкування в соціальному, академічному та професійному середовищах): І.І. Зуєнок;
Модуль 2 ‘Obtaining and Processing Information for Specific Purposes’ (Стратегії пошуку інформації в іншомовних друкованих та електронних професійно-орієнтованих джерелах та дослідження іншомовних джерел): І.І. Зуєнок;
Модуль 3 ‘Discussing Professionally-oriented Texts’ (Дискусії за професійними темами і темами навчання (на основі читання)): О.Д. Швець;
Модуль 4 ‘Giving Presentations’ (Підготовка та проведення презентацій (виступів-доповідей)): Н.В. Поперечна;
Модуль 5 ‘Communicating in Writing’ (Професійне іншомовне письмо (на основі читання і говоріння) та медіація): Н.В. Поперечна, О.Д. Швець.
Алфавітно-предметні покажчики (Index): І.І. Зуєнок, О.Д.Швець.
Бібліографічні описи (References, Bibliography) : І.І. Зуєнок.
Рекомендована література для кожного модуля, посилання, список основної використаної літератури та індекс наприкінці кожної частини охоплюють матеріали, опрацьовані всіма авторами.

Всі матеріали, що подані в навчальному комплексі – автентичні і взяті з реального життя. Вони були пропілотовані та пройшли апробацію зі студентами Національного гірничого університету протягом дворічного курсу навчання. Відгуки та побажання студентів відіграли значну роль у внесені відповідних змін щодо змісту кожного розділу, що зробило навчально-методичний комплекс таким, що відповідає потребам українських студентів, а також їх інтересам і бажанням. Матеріали, що включени в комплекс, можуть використовуватися викладачами для розробки додаткових навчально-методичних матеріалів в межах програм і стандартів своїх вищих навчальних закладів.

Навчальний посібник призначається насамперед студентам викладачам нелінгвістичних вищих навчальних закладів.

Він також може бути корисним для вчителів англійської мови, викладачів вищих навчальних закладів, молодих фахівців та вчених, зацікавлених в досягнені рівня B2 наводіння англійською мовою відповідно до Загальноєвропейських рекомендацій, що, в свою чергу, сприятиме академічній мобільності українських студентів і науковців.

Автори будуть щиро вдячні за відгуки, зауваження і побажання щодо покращення змісту навчального посібника та його структури, що допоможе подальшій роботі авторів з переробки та перевидання посібника.
PREFACE

This coursebook is the result of the authors’ ESP teaching experience in the National Mining University (Dnipropetrovsk, Ukraine) and their learning experience in the University College of Plymouth Marjon, University of Exeter (Great Britain) and John Hopkins University (the USA) as well as their teacher/trainer training experience within the National ESP Curriculum Project initiated by the Ministry of Education and Science of Ukraine supported by the British Council Ukraine.

*English for Study and Work* is the first attempt to design the materials that will meet both national and local standards and provide the Ukrainian teachers with an indispensable tool for teaching/learning English for Specific Purposes of students specialized in Engineering and Mining Engineering, in particular, as well as for designing their own options and materials within the syllabuses of their universities.

Meeting the aims of the National ESP Curriculum and the ESP Syllabus for Mining Engineers, *the overall aim* of this course book is to develop general and professionally-oriented communication language competences in English (linguistic, sociolinguistic and pragmatic) within the university students to allow them to communicate effectively in their academic and professional environments.

The coursebook can be seen as ‘a system’ or ‘a complex’ the structure of which covers all kinds of students’ activities both in class and while individual work and self-study that easify its use both for students and teachers. It consists of two parts that cover the content of the typical ESP course for Engineers at Bachelors’ level: *Part I ‘In-class Activities’, Part II ‘Self-Study*
Resources’ and Part III ‘Grammar Review and Practice’ to be used as a reference guide for those who have problems with the English Grammar.

The first two parts (Part I and Part II) are written by the team of authors who were responsible for the particular module(s):

Module 1 ‘Socialising in Academic and Professional Environment’ and
Module 2 ‘Obtaining and Processing Information for Specific Purposes’: Zuyenok, Iryna;
Module 3 ‘Discussing Professionally-oriented Texts’: Shvets, Olena;
Module 4 ‘Giving Presentations’: Poperechna, Nelly;
Module 5 ‘Communication in Writing’: Poperechna, Nelly and Shvets, Olena;

Bibliography and References: Zuyenok, Iryna;
Indices: Shvets, Olena and Zuyenok, Iryna;


Indicative reading for each module, references, bibliography and index given at the end of each part encompass the work of the whole team.

The content of the coursebook is designed to help students to achieve target B2 language proficiency level as required for Bachelor’s Degree. It covers professional and academic content (area of subject knowledge, i.e. Mining), situational content which is close to real life and pragmatic content: necessary practical and useful skills including study and soft skills. The content is modular in organisation wherein the modules are congruent to the ESP Syllabus for Mining Engineers.

All the materials provided in this coursebook were derived from the authentic real life materials which were piloted in the classrooms of the National Mining University within two years. The voices of our students and their feedback helped us much to make the appropriate changes in the content of the units
to make them relevant to students’ needs and meet the interests and wants of the Ukrainian students.

This coursebook should be useful for teachers, students, young specialists and scientists who are interested in working on their English to reach proficiency level B2 that is necessary for academic mobility.

We would be grateful for the feedback you provide us while using this coursebook. It will be your contribution in its future editions.
Part I

IN-CLASS ACTIVITIES

Частина I

Завдання та вправи для аудиторної роботи
ВСТУП

Навчальний посібник «Англійська мова для навчання і роботи» розроблено для навчання дисципліни «Англійська мова за професійним спрямуванням» студентів технічних університетів України.

Головна мета навчального посібнику: формувати у студентів загальні та професійно-орієнтовані комунікативної мовленнєвої компетенції (лінгвістичну, соціолінгвістичну і прагматичну) для забезпечення їхнього ефективного спілкування в академічному та професійному середовищі.

Том 1 «In-class Activities» (Завдання та вправи для аудиторної роботи) складається з п'яти модулів, що охоплюють найбільш важливі для майбутнього інженера загальні вміння, які використовуються в академічних і професійних ситуаціях, визначених ОПП і ОКХ.

Кожний модуль розглядає і розвиває всі мовленнєві вміння інтегровано і містить 8 уроків (Units), спрямованих на розвиток певних загальних вмінь. Таким чином, протягом модуля розвиваються усі мовленнєві вміння (читання, аудіювання, мовлення та письмо), хоча кожний з модулів може фокусуватися на певне мовленнєве вміння. Наприклад, модулі 1, 3, 4 - на мовлення (діалогічне або монологічне), модулі 2, 3 - на читання, модуль 5 – на письмо та медіацію. Саме тому модуль 5 містить 13 уроків, що цілком доречно так, як писемне спілкування та медіація потребують багато додаткового часу.

Останнє заняття (Unit 8, в модулі 5 - Unit 13) спрямоване на перевірку засвоєння вивченого і являє собою вихідний модульний тест, який допомагає студентам виявити свої прогалини за допомогою розділу ‘Self-assessment’ (Самооцінювання) у відповідному модулі Тому 2 «Self-study Resources» (Ресурси для самостійної роботи) і розробити план дій на наступний модуль.
Завдання та вправи, що рекомендуються для кожного практичного заняття (Units 1-7 і Units 1-12 в модулі 5 відповідно), різної складності, що допомагає організувати процес навчання/вивчення шляхом вибору видів діяльності, які відповідають конкретній групі студентів. Як результат, студенти залучаються до виконання низки різних видів діяльності, серед яких читання текстів, конспектування, складання нотаток, передача та обмін інформацією усно або письмово, участь у дискусіях і дебатах, виступи з (міні-)доповідями тощо.

Структура кожного уроку – логічна, послідовна і чітко визначена, водночас гнучка. Кожний урок розроблено за моделлю і починається з навчальних цілей тобто що саме студенти робитимуть протягом заняття і очікуваних результатів навчання, тобто що саме студенти зможуть робити наприкінці практичного заняття. Модель складається з 7 блоків: вступ (Focus on – фокус на мовленневі вміння, що будуть розвиватися протягом заняття, і Outcomes – очікувані результати); вступний блок Lead-in (підготовчі види діяльності такі, як складання карт мислення, мозковий штурм та інші види розігріваючої діяльності); Input - введення (пряме: письмовий або усний текст(и) або непряме, отримане з тексту або низки видів діяльності, виконаних в групі); Content Focus – фокус на зміст (фокус на мовленнєві вміння, навички і комунікацію); Language Focus – мовний фокус (фокус на вокабуляр, функції, мовні форми тощо); Task - завдання (або проблема), яке починається з передзавдань, що виконуються перед уведенням Input і закінчуються післязавданням(u) або вільною інтерпретацією, і вихідний блок Follow-up, який у більшості випадках уявляє собою низку післязавдань, які пропонуються для самостійної роботи. Оскільки запропонована модель – циклічна, вступний і вихідний блоки розглядаються як зв’язувальні елементи між уроками. Іноді вихідний блок одного уроку може слугувати вступним блоком до наступного уроку.
Робота над уроком починається з підготовчих видів діяльності, наведених у вступному блоку **Lead-in**, який може мати різну назву, але який обов'язково пропонує студентам скласти карту свого мислення або провести мозковий штурм щодо теми уроку, чи це поняття, функція або загальне вміння. Мета цього етапу — виявити що студенти вже знають з теми уроку, визначити прогалини в їх знаннях і організувати практичне заняття у відповідності до потреб студентів. Окрім того, це дає можливість студентам продемонструвати свої знання за темою, поділитися своїм особистим досвідом та ідеями, отриманими в ході навчання, а також викликати у них інтерес до теми заняття.

В блокі **Input** перед уведенням пропонуються **передтекстові завдання**, головна мета яких - налаштувати студентів на текст, що буде використано як введення, залучити студентів до виконання завдання або вирішення проблеми, водночас визначити рівень готовності студентів до сприйняття нового матеріалу (їх володіння вміннями та знаннями з теми). Це можуть бути завдання на передбачення, догадку тощо.

Саме завдання спрямоване на розвиток у студентів певних вмінь, навичок або стратегій таким чином, щоб вони могли використовувати ці вміння та навички в інших навчальних ситуаціях в майбутньому.

Мовленнєві навички, що розвиваються під час виконання завдань в інтегрований спосіб, надруковані жирним шрифтом.

Мовна або мовленнєва практика (**Content Focus** або **Language Focus**) являє собою низку завдань та/або видів діяльності, контрольованих викладачем і спрямованих на розвиток специфічної мови або певних навичок мовлення, необхідних для забезпечення автентичної комунікації. В цілому, це такі види діяльності та завдання, які інтегрують всі чотири мовленнєві вміння (мовлення, аудіювання, читання, письмо).
Сортирование, классификация и заполнение пробелов используются как контролируемая практика. На этом этапе рекомендуется широко використовывать парную, групповую и командную работу студентов.

Виходный блок **Follow-up** — это виходные задания или серия виходных заданий, которые объединяют в себе все изученное на уроке. В зависимости от общих навыков, что развивались в процессе практической работы, они могут быть представлены письменными заданиями, которые требуют много времени для выполнения и рекомендуются для самостоятельной работы, а также моделированием реальных ситуаций **Simulation** на практическом занятии в аудитории.

Однако, большинство заданий не сосредоточены на грамматике, все грамматические структуры, которые встречаются на протяжении урока, наводятся вблизи позиции **Grammar Reference** и должны быть изучены студентами индивидуально с помощью Главы III «**Grammar Review and Practice**» (Практикум-поводчик по грамматике). В случае необходимости преподаватели могут использовать материалы Главы III для своей практики в аудитории.
INTRODUCTION

The coursebook ‘English for Study and Work’ is designed for the students of the non-linguistic higher educational establishments in Ukraine.

Meeting the aims of the National ESP Curriculum and the ESP Syllabus for Mining Engineers, the overall aim of this course book is to develop general and professionally-oriented communication language competences in English (linguistic, sociolinguistic and pragmatic) within the university students to allow them to communicate effectively in their academic and professional environments.

**Part I In-class Activities** contains five modules that cover the most important for an engineer job-related skills used in academic and specialism-related situations identified in EQS and EPP.

Each module implies integration of all language skills and includes eight units aimed at the development of certain job-related skills. It may integrate several job-related skills. Thus, all language skills (*reading*, *listening*, *speaking* and *writing*) are developed within a module, though each module may focus on some specific skill. For example, *speaking* (spoken interaction or spoken production) (modules 1, 3 and 4 respectively) or *reading* (modules 2, 3). The last unit (Unit 8) is aimed at checking students’ progress, i.e. end-of-module test which helps students to identify their gaps and lacks in their learning by using the section ‘Self-assessment’ in appropriate module in Part II and to make action plans for the coming module.

Materials in each unit help to organise the teaching-learning process by providing a path through various activities of working on the language to be
learnt and skills to be developed. As the result, students are engaged in a chain of activities involving reading texts, making notes, passing on information obtained orally or in writing, exchanging information, participating in discussions and debates, giving presentations etc.

The structure of each unit is clear and coherent, although rather flexible. Each unit follows a model designed by the authors which starts with Focus on what is going to be done in the unit and expected learning outcomes, i.e. what students will be able to do by the end of the unit.

The model consists of 7 elements:

- **Introduction (Focus on)** the skills developed through unit and expected Outcomes,
- **Lead-in** (preparatory activities such as brainstorming, mind-mapping, i.e. warming up activities),
- **Input** (direct: a written or oral text(s) or indirect got from the text or a series of activities done within a group),
- **Content Focus** (focus on skills and communication),
- **Language Focus** (focus on vocabulary, functions, language forms etc.),
- **Task** (or problem) which starts with the pre-task activities before the Input and finishes with the post-task activities or free - transfer, and
- **Follow-up** which is in most cases are a series of post-task activities proposed for self-study. As the proposed model is cyclic Follow-up and Lead-in are seen as bridges between the units. That is why Follow-up can be used as a Lead-in for the coming Unit when necessary.

The work on the unit starts with the warming-up activities or Lead-in which can be named in different ways and propose students to brainstorm the topic of the lesson which can be a notion, a function or a job-related skill, and/or draw a mind-map. The aim of this stage is to reveal what students already
know on the topic of the unit, find out their gaps and lacks and arrange a lesson based on students’ needs. Besides, it will give a possibility to students to exhibit their knowledge, life experience and ideas got from the previous learning experience and engage their interest.

Before the **Input**, there are usually *pre-task activities* the main aim of which are to tune students to the text to be used as an input and to benchmark where students were at the beginning of the lesson as well as to engage students in fulfilling the task or solving a problem. It can be often prediction, guessing tasks etc.

The *task* itself is aimed at developing students’ specific skills or strategies so that they can transfer the skills to other learning situations. The skills developed in the tasks are usually integrated and printed in bold before the **Input**.

Language or communication *practice* (**Content Focus** or **Language Focus**) are seen as a series of tasks and/or activities aimed at developing specific language and skills necessary for authentic communication usually controlled by teacher. In most cases these activities or tasks integrate the four skills of speaking, listening, reading and writing. Sorting, classifying, filling-in gaps is also widely used as *controlled practice*. At this stage pair-work and group-work are in common use.

**Follow-up** is an *output task* or a series of output task which will bring all together and can be often a written task which is rather time-consuming or a **Simulation** depending on the job-related skill developed in the unit.

As grammar is not in the focus of the majority of tasks, all the grammatical structures met in units are marked with **Grammar reference** and should be
studied by the students individually using *Part III Grammar Review and Practice*. When necessary teachers can use the materials from Part III as *language practice* in class.
Module 1

Socialising in Academic and Professional Environment
Unit 1 Getting to Know Each Other

Focus on
• listening for detail
• listening to the instructions
• reading for detail
• making notes
• filling in the forms with personal information
• introducing yourself and people

By the end of the unit you will be:
• able to introduce yourself and people in oral and in writing
• able to fill in the forms with personal data
• aware of the peculiarities of greetings in English-speaking countries

Ice-breaker
1. Listen to your teacher introducing herself/himself and describing her/his life experience. By the end of your teacher’s monologue be ready to answer the following questions:
• What’s your teacher’s name?
• What’s your teacher’s family name?
• Where is your teacher from?
• Does your teacher have any hobbies?
• What is your teacher’s working experience?
• Does your teacher have a family?
• How many members are there in your teacher’s family?
• What do they do?
• Does your teacher like her/his job?
• What are your teacher’s requirements to students?
If necessary ask questions for clarification.
2. Write down your teacher’s requirements to students in bullet points given below:

Example:

- Students shouldn’t miss English classes if there is no evident reason.
- 
- 
- 

Speaking and Listening

3. Fill in the table given below with your personal information.

Table 1.1

<table>
<thead>
<tr>
<th>Personal Data</th>
<th>You</th>
<th>Your Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last Name/Family Name/Surname</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nationality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of Birth (date/month/year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place of Birth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact telephone numbers:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-mail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience of learning English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hobbies, if any</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Fill in the last column of the table above using the information given below.

Let me introduce myself. My name is Oksana Zakharova. I am a first-year student of the National Mining University of the IT Department. I am 18. I am from Oleksandria in Ukraine, but now I live in Dnipropetrovsk. I live in Residence Hall 4 which is in Gagarin Avenue 34 not far from the University. My hobby is learning foreign languages. I have learnt English for 10 years and now I am starting to learn German. I am keen on computing. For me surfing through the Internet is fascinating, that is why I have made up my mind to become a real professional in computing.

5. **Pair-work.** Get acquainted with a partner using the phrases from the list given below. Put the phrases in the correct order before you start a dialogue. You may follow the sample given above.

Excuse me.
What’s your name?
How old are you?
Good morning!
How are you?
Have you got a mobile phone? What’s its number?
Have you got an e-mail address? Can you spell it?
I’m sorry. Could you repeat it, please?
Sorry, I didn’t catch it. Could you spell it?
Where are you from?
What do you do?
Where do you live?
Let me introduce myself. My name is...
What do you like to do when you have spare time?

6. Fill in the table (**Table1.1**) with the information you have got about your partner. Be ready to introduce him or her to the whole group starting with the following phrases.
7. While listening to your groupmates presentations try to remember as much information about your future colleagues or buddies as possible.

**Reading**

8. Read the information about the rules how to behave adequately when greeting foreigners given in the box below.

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**For You to Know: Greeting People**

**How do you do! vs How are you?**

You are saying “How do you do!” only once while handshaking when you get acquainted with someone. It corresponds to Ukrainian or Russian “Nice to meet you!” To stress the fact that you have caught the name say: Eg. “How do you do, Oksana!” – “How do you do, Alex!”

You use “How are you?” (syn. How are you getting on? How are you doing?)” after or instead of the greeting a person you already know. The typical reply is “Ok./Fine. Thank you! And you?”

*Remember:* It is simply a greeting, not a topic for long discussions. You need not go into details on how you are getting on in reality. Of course, if you have bad news you may say “So-so”.

Being in England say “Hi!” (*informal* - for friends) or “Hello!” (*formal* - for colleagues, business partners etc.) to people as many times as you see them during a day. Otherwise, they will be disappointed and think you are having some serious problems or frustrated by them.

Do not forget to smile! 😊
Grammar Reference:

Personal Pronouns.
Present, Past and Future Simple of the verbs to be, to have, to do.

9. Read the personal information about Vladyslav Kravchenko and cross out the wrong form.

My name **is/are** Vladyslav Ivanovych Kravchenko and I **am/are** Ukrainian. I am /are not from Dnipropetrovsk as my parents am/are from Pavlograd. I am / was born in Petropavlivka in Dnipropetrovsk Oblast. My parents called me Vladyslav or Slava for short because it **is / was** my grandfather's/ grandmother's name. I am / have 18 years old. My birthday **is / are** on the eleventh of January. I love having a birthday in winter because we aren’t / won’t be always on holiday at that time. I am / are a first-year student and I study at the National Mining University in Dnipropetrovsk. I am / have been there for about 1 month. I really like studying but I am not / haven’t made friends yet. So I am/is still missing home.

Grammar Reference: Question Formation.

10. Write the questions by putting appropriate word or words instead of slash. The contract form of the appropriate verb is possible.

Example: What/name? – What’s your name? or What is your name?

   Here: ‘s is a contract form of is.

1. What/nationality?
2. Where in Ukraine/from?
3. Where/your parents born?
4. Where/you born?
5. How old/?
6. What/do?
7. What specialism/study in?
8. Where/live?
9. How long/in Dnipropetrovsk?
10. /like your university?
11. /take extra classes?
12. /friends?

Simulation

Situation 1. Imagine it is your first day in a foreign university. You are the only one from Ukraine there. Be ready to:

- introduce yourself to everyone
- introduce your country in brief
- learn something about each person you meet and their countries.

Prepare yourself by:

- giving yourself an identity – name, background, hobbies
- preparing a small talk about your country, trip, weather, etc.

Situation 2. Imagine you have just arrived to a foreign university and been put in one of its residence halls. Be ready to:

- introduce yourself to your neighbours
- learn something about your neighbours.

Prepare yourself by:

- giving yourself an identity – name, background, hobbies
• preparing a small talk about your country, trip, weather, etc.

**Real-life situation.** Within 10 minutes try to make as many friends within your group as possible.

Prepare yourself by:
• giving yourself an identity – name, background, the city you have come from, your hobbies, likes and dislikes.

**Follow-up**
11. Write a letter to your friend about your groupmates using the information you have got. If necessary ask them questions to get more details. Your letter should be not less than 100 words.

12. Write a short e-mail message introducing you to a pen pal. Try to be as brief as possible.

*Note:* When necessary refer the materials on Grammar in *Part III Grammar Review and Practice* and *Part II Self-study Resources.*
Unit 2 Making Friends

Focus on

- listening for detail
- reading for detail
- expressing thoughts, personal opinions and exchanging information
- comprehending different registers: how people talk and write to friends, colleagues, teachers, employers etc.
- writing letters, e-mails etc.

By the end of the unit you will:

- be able to write e-mails and letters introducing yourself and people
- be able to exchange your personal opinions and information
- develop your range of the vocabulary necessary to describe your hobbies
- be aware of the taboos when speaking to foreigners

Lead-in

1. Look at the pictures below and answer the following questions starting with phrases:
   
   I think...
   I believe...
   I guess...
   I'm sure...

   Be ready to give your arguments to the whole group.

A)  
B)
• Are they friends?
• Are they groupmates?
• How old are they?
• What do they do?
• Do they have anything in common?

2. Group-work. Being in groups of three or four, fill in the diagram given below. Be ready to give a brief presentation about your findings to the whole group.

Reading and Writing
3. Below are some e-mail messages taken from one of the social sites. Read them and discuss:
   • Which ones do you like? Why?
   • Which ones are the least interesting for you? Why?
   • Is there a message that you would like to answer?

HEY YOU! If you are 18 and interested in communicating with football fans from different countries, WRITE RIGHT NOW!

Hi! I’m a first-year student of the Ukrainian university. I am an 18-year-old girl who loves to dance and travel much. I love everything except football.
SO WHAT ARE YOU WAITING FOR?  

Christina
Hello to everyone! I am a 19-year-old guy who is interested in making friends with foreign students. I’m neither tall nor short with red long hair. The range of my hobbies is wide from football to ballet. I promise to give you a quick response. The preferences are given to the girls.

Patrick

4. Exchange the e-mails you have prepared at home. Choose any you would be interested to answer. Write a quick response.

Speaking and Listening

5. Read the statements about a real friend. Tick (√) the ones you agree. Compare your ideas with a partner. Be ready to give the arguments.

‘A real friend is a person who likes and dislikes the same things’.

‘A real friend is one who walks in when the rest of the world walks out’.

‘A real friend is a person, who does not envy you when you have won, but is really proud of you and your victory’.

‘A real friend can only be a person who you know for a long time’.

6. Complete the sentence with your own ideas. Read your sentence to the class.

A real friend is...
7. Listen to the stories. Be ready to answer where speakers met their friends. Match the speakers from the left-hand column with the appropriate places from the right-hand column.

Speaker 1. A) Internet
Speaker 2. B) Germany
Speaker 3. C) University

8. Complete the questions below using the prepositions from the box.

| about | at | for | in | on | to |

a) What activities and hobbies are you **good** _______?
b) What topics do you like **reading** _______?
c) What do you **spend** most of your money _______?
d) What types of activities are you **keen** _______?
e) What information are you **interested** _______?
f) What parties do you **belong** _______?
g) What do you usually **talk** _______ with friends?
h) How many languages are you **fluent** _______?

9. Choose any five questions from above you would like to ask your groupmates.

**Grammar Reference:**
Questions, Negatives.
Present Simple, Past Simple, Present Perfect.

10. Read the text below. Underline or mark the main idea in each paragraph.
For You to Know: Taboos

Some topics may be considered **taboos** in some cultures.

In the UK many people avoid the topic of **religion**. This may be because Britain is now a very secular country where religion has a relatively minor role, or may be that British regard someone's religious beliefs as very personal.

A stereotype of the Americans is that they ask you how much **money** you earn quite soon after meeting you. This is certainly not generally true. However, Americans do tend to be more open about money and its importance.

**Death** is taboo subject in many countries; people seem to be ill at ease discussing anything connected with the end of their lives!

**Politics** can be a delicate subject in some parts of the world. In the UK, many people are very guarded about their political allegiance.

11. *Pair-work.* Exchange the results of your work with a partner. Compare the information on taboos given above with those in Ukraine. Exchange your own opinions and thoughts on taboos with a partner. To express your own thoughts you may use the following phrases:
Note: If you need some more phrases use Part II Self-study Resources.

12. Read the questions/sentences given below and correct the mistakes if any.

Example: 0) Where do you from?
        Where are you from?

a) Where did you born?
b) How long you lived at home?
c) He doesn't lives here anymore.
d) Is he like playing football?
e) Does he married or single?
f) She don't like Mathematics.
g) Do she plays the piano?
h) Does she a student?
i) Does he live in residence hall?
j) Does he marry last year?
k) Did he met her in Dnipropetrovsk?
l) Who he met in Kyiv?

13. **Pair-work.** Work in pairs using the cards **Student A** given below and **Student B** given on the next page. Ask each other questions to fill in the gaps with the missing information.

*Example:* Where was Fedir born?

<table>
<thead>
<tr>
<th><strong>Student A</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fedir was born in __________ (<strong>where?</strong>) in 1987. He went to school in Ternivka for _____ (<strong>how long?</strong>) before moving to Dnipropetrovsk. He misses __________ (<strong>what?</strong>), but he enjoys studying and living in Dnipropetrovsk. In fact, he ____ (<strong>what?</strong>) in Dnipropetrovsk for over 3 years. Currently, he __________ (<strong>what?</strong>) at the National Mining University in Dnipropetrovsk where he is going to receive his Bachelor of Mining Science next _____ (<strong>when?</strong>). After he receives his degree, he is going to return to Ternivka to marry ____ (<strong>who?</strong>) and begin a career as a mining engineer. Olesia ____ (<strong>what?</strong>) at the University in Kyiv and is also going to receive ____ (<strong>what?</strong>) next May. They met in ____ (<strong>where?</strong>) in 2005 while they were going sightseeing together within _____ (<strong>where?</strong>). They have been engaged for ______ (<strong>how long?</strong>).</td>
</tr>
</tbody>
</table>

**Follow-up**

14. When you finish, compare the texts you both have got. Write the text describing your experience of study at the university using the given text as a sample. Pay attention that it should contain your personal information. You may write it in a form of letter to your friend.

15. Write a response to the e-mail message you were interested in.

16. Prepare a short story about your best friend(s).
Fedir was born in Ternivka in ______ (when?). He went to school in ______ (where?) for 12 years before moving to ______ (where?). He misses living in Ternivka, but he enjoys ______ (what?) in Dnipropetrovsk. In fact, he has lived in Dnipropetrovsk for ______ (how long?). Currently, he is studying at the ______ (where?) where he is going to receive his ______ (what?) next June. After he receives his degree, he is going to return to _____ (where?) to marry his fiancé Olesia and begin a career as _____ (what?). Olesia studies Art History at the _______ (where?) and is also going to receive a degree in Art History next _____ (when?). They met in Kyiv in _____ (when?) while they _______ (what?) together within a group of the best students of Ukraine. They have been engaged for three years.
Stage 1. Choose three groupmates. Draw their faces in the frames and write their names and information about them on separate sheets of paper, using the answers to the following questions:

- What was your first impression of a groupmate?
- Why do you like him/her?
- What things do you have in common?
- What are the main features of his/her character?
- What activities/hobbies is s/he keen on?
- What don’t you like in him/her?

Write down your name under the information you have written.

Stage 2. Gather all the sheets with the information about your groupmates and sort them in accordance with their names.

Stage 3. Draw a tree in the centre of the poster. The number of branches of the tree should correspond to the number of your groupmates.

Stage 4. Put the drawings and information about your groupmates on the branches of the tree. You may use real life photos of your friends instead of the drawings. Draw a line between groupmates who know each other better. (You may use signatures on the gathered sheets of paper).
Stage 5. Describe the poster to the whole group.
Unit 3  Meeting people. Describing People and Objects

Focus on

- listening for information
- listening for detail
- interacting with people
- giving descriptions of people and objects
- participating in informal discussions
- taking and making notes

By the end of the unit you will:

- be able to describe people and objects
- raise your self-awareness
- develop your range of the vocabulary in geometry and people’s appearance and character
- have practiced to make notes of the information read and/or heard

Lead-in

1. Group-work. Being in groups of three or four think of the following:
   - How can you recognize the people you have never seen before?
   - What helps you to guess that this is the person you are waiting for?
2. Present the results of your group-work to the whole group.
3. Pair-work. Work with a partner. Make a common list of adjectives you can use to describe people and objects. Share the results of your work with the whole group.
4. Whole-group work. Make a whole-group list of adjectives to be used for describing people and objects.

Reading and Listening, Taking and Making notes

5. Match the figures in the left-hand column with their names given in the right-hand columns:
<table>
<thead>
<tr>
<th>Figure / Configuration</th>
<th>Name</th>
<th>Form / Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>a) an oval/ ellipse</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>b) an arrow</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>c) a circle</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>d) a square</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>e) a triangle</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>f) a curve</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>g) a rectangle</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>h) a cube</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>i) a cylindre</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>j) a line</td>
<td></td>
</tr>
</tbody>
</table>
6. Fill in the last column on the right with the adjective describing the form of an object.

*Example: a circle – circular, round*

7. Read the following table, then listen to the dialogue and tick (√) the information you have heard. Compare the results of your work with a partner.

<table>
<thead>
<tr>
<th>Table 1.2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Height</strong></td>
</tr>
<tr>
<td><strong>Build</strong></td>
</tr>
<tr>
<td><strong>Age</strong></td>
</tr>
<tr>
<td><strong>Facial Features</strong></td>
</tr>
<tr>
<td><strong>Eyes</strong></td>
</tr>
<tr>
<td><strong>Hair</strong></td>
</tr>
<tr>
<td><strong>Hair Colour</strong></td>
</tr>
<tr>
<td><strong>Personality</strong></td>
</tr>
<tr>
<td><strong>Clothes</strong></td>
</tr>
</tbody>
</table>

8. Fill in the WORKSHEET below with the words from the list given in the box. If necessary, use the dictionary.

*Round, oval, of medium height, middle-aged, teenaged, old, blond, tall, wrinkled, bold, tanned, slim, thin, scar, well-built, overweight, pale, muscular, straight, skinny, braid, crooked, short, moustache, beard, pony-tail, long-legged, curved, wavy, short, full, beautiful, handsome, ugly, dark, fair, hazel, blue, grey, green, red, brown, fat, plump, silver, pretty, broad-shouldered, turned-up, full, stout.*
WORKSHEET 1.1

| HEIGHT: |   |
| BUILD: |   |
| AGE: |   |
| COMPLEXION: |   |
| FACE: |   |
| HAIR: |   |
| EYES: |   |
| NOSE: |   |
| LIPS: |   |
| SPECIAL FEATURES: |   |

9. Describe anyone from your group following the given scheme. Make notes if necessary.

<table>
<thead>
<tr>
<th>Introduction:</th>
<th>Name of the person; time you met/saw him/her first</th>
</tr>
</thead>
</table>
| Main Body:    | Physical appearance: height/build, age, facial features, hair, clothes.  
               | Personality characteristics.  
               | Hobbies, interests or any activities s/he takes part in. |
| Conclusion:   | Eg. All in all,  
               | Ultimately, etc. |
| Comments:     | Comments and feelings about the person. |
Grammar Reference:
Adjectives, Possessive Case of Nouns and Personal Pronouns.

Simulation
Situation. Imagine that you are going abroad to participate in a conference. Be ready to give an oral description of yourself. Prepare yourself by:
- describing your appearance
- describing clothes you will be wearing.

Follow-up
10. Write a letter to your friend describing your new university friend. Follow the schemes and tables given in the Unit.

11. 1 Write down as many adjectives describing personal qualities as you know. You may use a dictionary if necessary.
11. 2 Classify them into three main groups: Positive Qualities (+), Negative Qualities (-) and Neutral Qualities (±).

Self-awareness
11. 3 Put the ticks (√) near the qualities you possess. Write a short paragraph describing your character. Focus on your positive qualities.

12. Think on whether your negative qualities are really negative, whether it is possible to change them into positive ones.
Unit 4 Describing Daily Life and Learning Experience

Focus on

• reading letters
• expressing thoughts, personal opinions and exchanging information in written
• identifying writer's purpose and appreciating the impact of writing (e.g. letters and e-mails etc.)
• comprehending different registers: how people talk and write to friends, colleagues, teachers etc.
• writing texts for a variety of purposes related to personal and academic/professional areas
• writing letters, e-mails etc.
• writing clear, detailed descriptions of the events and experiences in the academic and/or vocational life, marking the relationship between ideas and following established conventions of the genre concerned

By the end of the unit you will:

• be able to write e-mails and letters describing your daily life and learning experience
• be able to exchange your personal opinions and information on daily life in oral and in writing
• develop your range of the vocabulary necessary to describe your everyday life and your own learning experience
• be aware of the traditions and culture of foreign universities

Start-up

1. Read the information about traditions that exist in foreign universities given in the box below.
For You to Know:

First Days in a University

When you arrive to American or English University/College you are provided with the Welcome Pack which typically contains a Welcome letter from your tutor and/or teachers of the courses to be delivered, Welcome Guide for Course Participants (10 - 15 pages in whole) which contains the detailed information for newcomers about UNIVERSITY/ COLLEGE SERVICES: Reception, Catering, Learning Resources Centres, Public Transport, Taxis etc.; ACCOMMODATION: Living on Campus including NON-SMOKING Policy in the most areas of the College/ University, WELFARE: Keeping in Touch with Home, Insurance, Health, FREE TIME: Sports, Shopping, Campus Facilities, SAFETY INSTRUCTIONS for students with the detailed description of safety measures to follow while traveling etc.

The information provided will easify your first days in the University/ College and staying in a foreign country. You will be also provided with the map of University/ College as well as the city it is situated in and its suburbs.

2. Group-work. You are going to read a Welcome letter for the ESP course. The letter was written by the Ukrainian English teachers from the National Mining University. Before reading, try to predict what it will be about by answering the questions from Prediction Chart.

<table>
<thead>
<tr>
<th>Prediction Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is this letter about?</td>
</tr>
<tr>
<td>Why have teachers written this letter?</td>
</tr>
<tr>
<td>What information can you find in this text?</td>
</tr>
<tr>
<td>How will the whole text be arranged?</td>
</tr>
<tr>
<td>What information would you like to find in this text?</td>
</tr>
</tbody>
</table>

Share your predictions within your group, explaining what helped you to make the predictions.
Dear Student,

Welcome to our classes! It’s nice to see that you are here and that you wish to study English. We would like to explain to you a little about our classes.

Our classes are going to study English for Specific Purposes of yours. We will study English for academic purposes and/or vocational purposes. It will greatly depend on your needs and wants. In any case while studying we will focus on the situations typical for academic environment and the environment you will find yourself in future. We will discuss topics and issues that are around us, like our families, friends, university, our feelings and how we came to this city and what for. The topics of your professional area and interest are also will be focused on, but a little bit later. We will study issues in English by using our skills in speaking, writing, reading and listening. The special attention will be drawn to study skills or ‘learning to learn’ and raising your self-awareness and organisation.

You have many important roles to play in our class. First, you are a representative of your community and region you have come from. Second, you also will be a researcher of your life and university community as well as a researcher in the field of your specialism area. It is important to learn about yourself as a person and to share your personal experience with your groupmates, i.e. to tell the members of your group what you know and can do using English. Third, we hope that you will feel free to tell our class what you need and want to learn. We also hope that you will report to our class about what you like or do not like about our studying. We promise we will help you to learn by developing different strategies and skills you will need to be a success in future. Fourth, in our class we will study about different topics and issues around us. It will be necessary for us not only study these issues, but also to make an action plan for your future.

Our role will be to provide you with choices. We will give you many options on how to study English, options on what to study and how to study it and make your plans of action. We will help you to learn English and develop both personally and professionally. We will give you feedback on your studying when you want us to do so.

We hope you will see that we are all teachers and learners. We can teach the English language and you can teach us about your specialism area.

If you have any questions, please ask them to us. We enjoy talking to you and answering your questions.

Sincerely Yours,
Teachers of Foreign Languages Department
4. Give the answers to the following questions, using the letter given above when necessary.

- What subject will be taught in the classes?
- What are the objectives of the classes? Are any of them appropriate to your needs and wants?
- What are the main roles students have in the classes? Which one of them do you agree and disagree with? Why?
- What is the role of the teacher?
- Why have the teachers written this letter?
- Do you agree or disagree with the role of the teacher? Why?
- Is it a good tradition in English-speaking countries to write Welcome letters to their students?
- Would you like your teacher to write a Welcome letter or a Letter of Explanation? Why?
- Do YOU have any questions to your English teacher? If yes, write them down on a sheet of paper and give them to your teacher at the end of your class.

5. Compare your predictions with the answers you have got after reading a Welcome letter.

6. Draw a format of a letter using a Welcome letter you have read.

Speaking

7. Below is the list of words and phrases used for describing daily routine. Put them into three columns in the correct order using the supporting questions and diagram. Make a story about your daily routine. Try to use as many words from the list as possible.
• What do you usually do in the morning?
• What do you usually do in the university/at work?
• How do you spend your spare time?

**Language to Be Used:**

Working hours, to sleep, to dream, to wake up, to get up, to be busy=to work hard, to wash, to dance, break (for lunch/coffee/tea), to take a bath/a shower, to leave, to be free, to take the exam, to brush one’s teeth, to shave, subject (area), credit, canteen, colleague, teacher, to comb one’s hair, to get dressed, lecturer, to have=eat breakfast/lunch/dinner, tuner, to wash up, to deliver lectures, to get handouts, textbook, to take notes, to make notes, note-book, qualified, to be fired, to be hired, to enter, to finish school, to graduate from the university, term, dean, tutor, to get scholarship, to win/get a grant, to earn (money), holidays, leisure, hobbies, interests, radio, TV, channel, programme, quiz, cross-word puzzle, band, to turn up/down (the volume), to play the instrument, to sing, to read, exhibition, museum, show, sports, education, to learn, to take lessons, to have classes, a course, professor, undergraduate, bachelor, master, homework, timetable/schedule, assignment, task, problem, examination, module, result, mark, to pass, to fail, level, to get up early, to travel by bus, to do a lot of preparation, to write reports, to meet parents, to make lots of photocopies, to read a lot of books.

8. Complete the adjectives used when describing one’s daily routine with two opposites/antonyms filling the gaps with the appropriate letters. The first one is done for you.

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Opposites</th>
</tr>
</thead>
<tbody>
<tr>
<td>relaxing</td>
<td>stressful or tense</td>
</tr>
<tr>
<td>easy</td>
<td>di______t or ha____</td>
</tr>
<tr>
<td>leisurely</td>
<td>hec____ or cha____c</td>
</tr>
<tr>
<td>dangerous</td>
<td>sa____ or se______</td>
</tr>
</tbody>
</table>
9. Read a description of Student’s daily routine written by a Brazilian student. Fill in the gaps with the correct form of the verbs have or have to in present or past.

Well, the best three adjectives I can think of are hectic and tiring - but also very rewarding. I get extremely tired because I ______work the whole day. A student's life isn't easy in Brazil. We usually ______three or four classes a day. Each class is about 50 minutes long. One scholarship isn't enough, so I work in two different places. I ______rush from one place to another, so I don't get any time to relax. It's better now I can drive and ______a small car, but it was really difficult when I ______go everywhere by bus. I was travelling for up to three hours a day, sitting on buses, preparing my hometask and doing homework. I'm lucky because Thiago ______a good job, so we don't_______work at weekends.

There are more than 30 students in our group, so it's hard to talk to all of them at the university. I enjoy socialising with them at weekends. Then two evenings a week I took classes in driving which were very different but rewarding too. What I love about learning is the interaction with the teachers and students. I ______learnt much since I entered the university. Everyday I ______lectures in different subjects, laboratory works and seminars. That is why I ______read much to be ready for classes. Preparation for classes takes a lot of time.

10. Pair-work. Exchange your own experience of being a student with your neighbour. Try to use as many new words got from 7 – 9 as possible. Be ready to describe your partner’s student’s daily routine to the whole class.
Reading and Writing


Dear Petro

I have been in Dnipropetrovsk for a month. At the moment i am studying at the National Mining University, so I living in a Residence Hall in a room 345 with three other students. There are from different mining towns. We have a lot common and sharing the same interests. We are hectic up to our eyes with studying during our daytime, but in the evenings... We listen to the music, having tea and endless talks on this or that. I study at the Mining Faculty and planning come back to our town. Dnipropetrovsk is large noisy city. Here everyone is in rush. I have tired by this tempo and missing my home and our native town. I like the week-ends here very much, especially going out down town or to a disco or night club. Unfortunately, they are too expensive, but it worth going at least once. Although, I getting scholarship, I thinking on finding a job to earn some money. How are you there. What’s new? Looking forward to hearing from you soon. Best wishes Vasyl P.S.: I attached some photo of me and the place of my residence.

Follow-up

12. Write a letter to your friend describing your daily routine.

13. Describe your experience of learning English focusing on what you know and can do using English. Make your Action Plan for the whole course and for this module, in particular.
Unit 5 Making Arrangements by Phone

Focus on

- listening to recordings of telephone calls
- taking and making messages
- identifying speaker viewpoints and attitudes as well as the information content
- taking a series of follow-up questions
- making telephone calls for a specific purpose related to academic or professional area

By the end of the unit you will be:

- able to make a telephone call in English
- able to take a message while telephoning
- aware of the peculiarities of taking a formal telephone call in English
- aware of structure of a typical telephone call

Start-up

1. Group-work. Being in groups of three or four discuss the following questions:
   - Have you ever made a phone call in English? If yes, who to? What was it about?
   - Are there any difficulties for you when speaking on the phone in English? If yes, what is difficult and why?

2. Share your experience and problems appear when speaking on the phone in English with the whole group.

Brainstorming

3. Think on what makes an effective telephone call. Fill in the diagram below with your ideas. One of the components has been put for you. Compare your diagram with a partner.
Reading

4. Below are the rules on HOW TO MAKE A FORMAL CALL. Read them carefully and fill in the blank cells in WORKSHEET 1.2 using the information from Part II Self-study Resources.

WORKSHEET 1.2

<table>
<thead>
<tr>
<th>Person Answering</th>
<th>Caller</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First words</strong></td>
<td><strong>First words</strong></td>
</tr>
<tr>
<td>Hello, Mining Department of the National Mining University. Secretary of Professor Bondarenko (is speaking).</td>
<td>Hello. Is Professor Bondarenko there?</td>
</tr>
<tr>
<td>(May I ask) who’s calling, please? Can I take your name?</td>
<td>Hello. I’d like to speak to Professor Kuzmenko.</td>
</tr>
<tr>
<td><strong>Finding out who is speaking</strong></td>
<td><strong>Introducing yourself and the reason of your call</strong></td>
</tr>
<tr>
<td><strong>Continuing the call</strong></td>
<td><strong>Continuing the call</strong></td>
</tr>
<tr>
<td>I’ll put you through. One moment. Hold the line, please. I’m afraid he’s not here at the moment. Would you like to call back later? Can I take a message?</td>
<td>Could he call me back? My number is ... Can I leave a message?</td>
</tr>
</tbody>
</table>
Taking a message/Leaving a message

Confirming

Grammar Reference:
Numerals, Modals.

Listening and Taking notes
5. Listen to the three telephone conversations and fill in the table given below:

<table>
<thead>
<tr>
<th></th>
<th>Call 1</th>
<th>Call 2</th>
<th>Call 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caller's name</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caller's phone No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Message</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STRUCTURE OF A FORMAL CALL
6. Put the phrases giving below in the correct order. Keep in mind that some phrases can be omitted for some reasons.
Caller

I'm afraid he is not available in at the moment. Would you like to call him back in 10.

I'd like to speak to Professor Kuzmenko.

Hello. Is it Department of Underground Mining?

It's Professor Brown from Frieburg School calling.

It's OK with me. Tomorrow morning at Professor Kuzmenko's Office at 10 o'clock?

I would like to meet Professor Kuzmenko tomorrow morning at his office. Will he be available?

Person answering

May I ask who is calling, please?

Hello. Speak up, please.

Unfortunately, no. Can I leave a message for him?

Hold the line, please. I'll take a piece of paper. Are you there?

Ok. Tomorrow morning at Professor Kuzmenko's office at 10 a.m. I will pass your message to him. Good-bye. See you tomorrow in the office.

Tomorrow morning? Does 10 a.m. suit you?
7. **Pair-work.** Make a dialogue simulating a telephone call using the phrases given above. Dramatize it.

8. Make a message by filling the gaps in a sample given below using the information got from the simulated call.

```
Date: 
Message for: 
Subject: 
Reminder -
```

**Reading and Following Instructions**

9. Read recommendations how to keep in touch with home while studying at an English College.

**Telephone: Receiving phone calls**

If you have a mobile phone which can work in the UK you will be able to make and receive phone calls easily, though this could be very expensive.

Whether you live on campus or with a Homestay Host, you will be able to receive phone calls from home. Please be considerate to others and make sure that people calling you from your home country are aware of the time differences with the UK.

On campus there are phones in the corridors of the Halls of Residence which receive incoming calls only. Each phone has a four-digit extension number. The person calling you will need to know the extension number of the phone nearest your room.

Your caller must first dial the main College Switchboard Number (see box on the next page). The phone is answered by a recorded message. As soon as this message begins your caller can dial your extension number.

Consider others, and call them to phone if you answer it and the call is for them.
If there is a phone in your room you can set up an account to make and receive phone calls. Details of this service are in your room, and available from Alison or Patricia.

The College Switchboard Number is
From outside the UK: +44 1752 636700

Telephone: Making Phone Calls

You can make phone calls from payphones in the College. This is convenient though it can be expensive.

There are payphones in the Reception area and near the Student Union Office, in the Halls of Residence and the Student Village. Some phones take cash, others take phone cards.

You can buy phone cards from the College Bookshop. The phone cards are cheaper, especially if used from a private phone. Using a phone card in a public phone is much more expensive.

(From GUIDE FOR COURSE PARTICIPANTS of Marjon International)

10. Answer the questions using the information from the text:
   • Are telephone calls cheap from the UK? If yes, which ones?
   • Where can you find phones in the College?
   • Where can you find payphones in the College? Name all the places.
   • Are there any phones in the rooms? If yes, what do you need to do to be able to make and receive phone calls?
   • What is the cheapest way to make a telephone call?
   • Why it is necessary to be aware of time differences?

11. Read the information given below and make word to word translation of English clichés used for making a telephone call into Ukrainian. Compare them and find the differences.
For you to Know

Making a Telephone Call in English

Before the Call:

1. Check the country and city codes as well as the telephone number you are going to dial.
2. If there is an extension number, write it down on a piece of paper.
3. It is recommended to put all the codes and telephone numbers on a piece of paper.

Remember: On the contrary with the Ukrainian telephone numbers, foreign phone numbers are written and pronounced as a sequence of numerals.
Eg. +3 80567783455 (plus three, eight, zero, five, six, double seven, eight, three, four, double five).

During a Call:
Use the appropriate English clichés equivalent to the Ukrainian ones. Pay attention to the differences and remember the clichés:

Слухаю. - Speaking.

Говорить... - This is Mr ... calling.

З’єднайте мене, буду ласка з... - Could you put me through to Mr...?

Не кладіть трубку! - Hold on, hold the line!

Нас раз’єднали, передзвоніть, будь ласка. - We were cut off, please, repeat the call.

Ви мене чуєте? - Are you there?

Вас погано чути! - I can’t hear you well!

Продовжуйте, говоріть. - Go ahead, please.

Говоріть голосніше! - Could you speak up, please.
12. Match the typical Ukrainian words and phrases used for telephone calls (1-20) with the English ones given in the right-hand column (a – u).

1. Слухаю.  a) Are you there?
2. Говорить...  b) May I speak to Mr...
3. З’єднайте мене, будь ласка з...  c) Go ahead, please.
4. Його/її не має на місці.  d) Hold the line, please.
5. Вона/він зараз зайнятий.  e) I can’t here you well!
6. Що йому переказати?  f) Could you leave a message?
7. Не могли би Ви залишити йому повідомлення?  g) receiver
8. Не кладіть трубку!  h) This is Mr ... calling.
9. Вас погано чути!  i) You’ve got a wrong number.
10. Говоріть голосніше!  j) extension (number)
11. номер комутатора  k) S/he is very busy now.
12. Номер не зайнято.  l) Speaking.
13. довгий гудок  m) We had a very bad connection.
14. Зачекайте!  n) I’ll wait for your call.
15. Поганий зв’язок!  o) Could you put me through to
16. Я зателефоную пізніше.  p) dialing tone
17. слухавка  q) ringing tone
18. Ви помилились номером.  r) Wait a minute. =
19. Було дуже погано чути.  s) Just a moment.
20. Я буду чекати на Ваш дзвоник.  t) He’s not in (now).
21. u) I will call back.
Simulation

Situation 1. **Student A** is in the office of the department alone as everyone has gone out to have lunch. A telephone is ringing. You are to answer it and leave a message for Professor Tarasuk.

**Student B.** You are Professor Helmut from German university. You are calling Professor Tarasuk to make all the necessary arrangements on your meeting in Kyiv on 30 November. Leave a message with an offer to call him back.

Situation 2. **Student A** is calling his/her friend who is studying in a foreign university. An extension number is 3005. Make a call to the university and ask to put you through with your friend.

**Student B.** You are in the university Residence Hall which is not far from a telephone the extension number of each is 3005. Answer the call and inform your friend when you are arriving in Ukraine for holidays.

Situation 3. Below is a message left by one of the members of Student Union. Read it and dramatize a telephone call.

```
Date: 29/11/08
From: Mr Green                                     To: Alex Gavrilchenko
Topic: Students’ Forum in the National Mining University in April 2010.
Reminder: Call back to Mr Green tomorrow morning at 9.30 a.m. American time. Mr Green’s number + 385 44522709, extension number 452.
```
Unit 6 Exchanging Information and Discussing News

Focus on

- participating in routine informal discussions and meetings on profession related topics
- expressing own ideas and opinions
- highlighting the personal significance of the events and experiences in personal and academic life
- giving opinions on content of authentic radio and TV programmes
- reading and identifying writer’s attitudes and viewpoints in authentic texts related to academic and/or professional area
- reading instructions
- passing on detailed information

By the end of the unit you will:

- be able to participate in informal discussions expressing your own opinions and ideas on various topics related to your personal and academic life
- be able to deliver and pass the information
- be able to offer opinions on content of authentic mass media sources
- understand how core values and beliefs of Ukrainian students differ from culture to culture (regional, national, international)
- develop your own strategy to participate in discussions

Lead - in

1. Group-work. Being in groups of three or four, brainstorm the typical issues students of Ukraine discuss. Put your ideas on a sheet of paper. Be ready to present your ideas to the whole group. Make a poster of the ideas of the whole group.
2. Below is the mind-map of the burning issues discussed by foreign students that was made by the participants of the International Students’ Forum. Look and compare it with your posters. Be ready to answer the following questions:

- What topics are common for all of the posters?
- What do you agree with? Explain why.
- Is there anything you would like to change in the mind-map?
- Is there anything you would like to add to your mind-map?

Fig. 1. Mind-map of the burning issues discussed by the Polish students

3. Make any changes in your mind-map if necessary.

Reading, Speaking and Making notes

4. Below are some phrases typically used in discussions for developing an argument.
4.1. Find:

- four structures used for expressing your own opinions
- three structures used for focusing someone’s attention on information
- three structures used for clarifying
- three structures for making a conclusion
- one word used for emphasizing.

A. Taking all this into consideration ______.
B. In my opinion/view ______.
C. The thing/matter is ______.
D. In particular, ______.
E. I am convinced that ______.
F. As far as I know ______.
G. It seems to me that ______.
H. The majority of students/teachers/people ______.
I. The thing that impressed me most was ______.
J. The one thing that worries me ______.
K. All things considered ______.
L. Mainly ______.
M. Predominantly ______.
N. By ______, do you mean ______?
O. Could you explain what you mean by ______?
P. Are you sure (that ______)?
Q. To sum up, ______.
4.2. *Pair-work*. Compare the results of your work with a partner. Put the corresponding letters into the table opposite appropriate *Function*.

<table>
<thead>
<tr>
<th>Function</th>
<th>Words and structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expressing own opinions</td>
<td>B,</td>
</tr>
<tr>
<td>Focusing attention</td>
<td></td>
</tr>
<tr>
<td>Clarifying</td>
<td></td>
</tr>
<tr>
<td>Emphasizing</td>
<td></td>
</tr>
<tr>
<td>Concluding</td>
<td></td>
</tr>
</tbody>
</table>

5. *Group-work*. Being in groups, make a mind-map on the sources where you can find news and information. Compare the results of your work with another group. Find out what is common and different in your mind maps. If necessary ask for clarification and give your arguments.
6. Read an article from American on-line Students Newspaper accessed on http://www.psu.edu/archive/2008/05/05 and see if you can locate any main and supporting ideas. Make a note of this.

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Sleep needs more respect
By Kelly Anthony

Kelly Anthony is a freshman majoring in journalism and nutrition and is a Daily Collegian page designer.
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It has sadly come to my attention that we college students, a far cry from the mat-bearing kindergartners we once were, are no longer giving sleep the respect it deserves.

It's decidedly trendy for undergrads to survive on a Spartan four hours and to wear all-nighters spent studying like a badge.
Lethargy is unbecoming, but the greatest injustice lies here: We are shunning the basic (and necessary) human function that is sleep. And I, as an aficionado of sorts, would like to rectify that.
Aside from Guitar Hero and excessive alcohol consumption, we seem to have three main priorities: to earn a golden GPA, to be attractive and desirable and to land a good-looking member of the opposite sex. Not one of these goals is achievable without adequate sleep.

A study conducted at the University of Pennsylvania found that by missing out on only two of the necessary nine hours of sleep, you've already made making the Dean's list that much more improbable. That means impaired learning, greater vulnerability to stress and an inability to carry out complex tasks.

After a night without sleep, students did 40 percent worse memorizing lists of words than they had on nights with adequate sleep -- that's four letter grades. So, pull an all-nighter if you must, but there goes that stellar GPA. And that scratches off priority No. 1.
Which leads us to priority two -- the need to look hot. Our genetic hardwiring has made sure that everything we do is because of our inherent longing for desirability -- cologne, fashion and cardio routines included.

According to a 60 Minutes report, missing sleep leads to weight gain, negative self-image and stress, which has side effects such as the skin conditions Rosacea and acne. Sleep-deprived test subjects also show an eyebrow-raising deficit of the hormone Leptin, which we need to signal the brain to stop eating, 60 Minutes reported. This increase in hunger may be a factor in the national obesity epidemic.

Other studies show that dreams are an integral part in positive self-image and self-identity development. If that isn’t enough, the sleep-deprived also show irrationality and moodiness. Chubby, more annoying and less self-secure? Say bye-bye to priority two.

Squashing any possibility of priority two has simultaneously destroyed any minute possibility of priority three ever happening -- getting with an attractive member of the opposite sex. Even if, in your despondent and butterball state, you were to by chance hook an attractive one, science has made it decidedly harder to reel them in.

Sleep deprivation causes excess strain on the mind and body, including your sex drive. One-fourth of respondents in a recent CBS survey reported that a sexual relationship of theirs had been hurt because their partner had been too sleepy.

Getting less sleep also causes testosterone levels to plummet, resulting in erectile dysfunction, according to a 60 Minutes interview with Jon Pryor, a professor of urologic surgery at the University of Minnesota.

So, you’ll be getting less, and might even be too tired to care. Scared yet?

We’ve sentenced ourselves to what multiple studies say are problems in social relationships, difficulty handling stress, anxiety, depression and trouble with school -- issues that we already struggle with.

*Collegian Inc., 123 S. Burrowes St., University Park, Pa.
Accessed at http:// www. psu.edu/archive/2008/05/05 [online].
7. **Pair-work.** Look through the article again and exchange your opinion and ideas on:

- Was this article of any interest to you? Why?
- Do Ukrainian students have the similar problems with sleep?
- What was new for you in this article?
- Did it make you think on your lifestyle? If yes, why?
- Would you like to discuss this article with your friends and groupmates?

While exchanging your ideas, use the phrases from 4. If necessary fill the gaps given in 4.1. with the appropriate information from the article.

**Follow-up**

8. Think of the following questions and be ready to share your ideas and opinions within the group:

- Is there a Students’ Newspaper in your university? If yes, is it published by students?
- What issues should be highlighted in a Students’ Newspaper? Why?
- Would you like to write an article to a Students’ Newspaper?
- If yes, see 9 below.

9. Write a short article to the university students’ newspaper on your impressions on the university as a fresher.

10. Watch TV news and be ready to discuss current events within your group-mates next class.
Unit 7  Dealing with Problems

Focus on:

- reading authentic texts related to study or specialism areas from Web-based sources
- understanding instructions
- developing strategies to participate in discussions and seminars
- accounting of different points of view
- comprehending different registers: how people talk and write to friends, colleagues, employers, and people of different ages and social status for different purposes
- developing understanding different corporate cultures within specific professional contexts and how they relate to each other

By the end of the unit you will:

- be able to participate appropriately in common social and academic settings
- be able to participate in clear argument on topical issue in academic and professional areas (e.g. seminars, discussions, debates, etc.)
- be able to deliver and pass the information
- be able to offer opinions on content of authentic mass media sources
- be able to deal with problems by writing letters of complaint
- understand how core values and beliefs of Ukrainian students differ from culture to culture (regional, national, international)
- develop your own strategy to participate in discussion

Lead-in

1. Group-work. Being in groups of three or four share your experience of the first two months being in the university focusing on the following questions:
• Have you faced any problems in your study, staying in a Residence Hall and/or while spending your free time? If yes, put them on a list.
• Are there any differences in the study in school and the university? If yes, put them on the list into two columns: school, university.
• If you are not a resident of Dnipropetrovsk, how do you find the city in comparison to your native town? Is it easy for you to live here?
• What are the main difficulties for you to adjust to university life and culture? Identify them and put them on the list.

2. Whole-group discussion. Share the results of your group-work with the whole group and identify the problems typical for the whole group.

Reading and Discussion
3. Below is the article from the site of the State University of New York at Buffalo. Read it and compare the typical problems listed with the ones you have faced. You may mark them in the text in any way suitable for you (underline, mark etc.)

Tips for Adjusting to University Life and Resources at the Counseling Services
For many first-year students, the University may be their first experience living away from home for an extended period of time. It is a definite break from home. The individual's usual sources of support are no longer present to facilitate adjustment to the unfamiliar environment. Here are tips for students which may provide realistic expectations concerning living arrangements and social life on campus. In addition, students may benefit from information concerning resources available to them at the Counseling Services office.

• The first few weeks on campus can be a lonely period. There may be concerns about forming friendships. When new students look around,
may seem that everyone else is self-confident and socially successful. The reality is that everyone is having the same concerns.

- If they allow sufficient time, students usually find peers in the university to provide structure and a valuable support system in the new environment. The important thing for the student to remember in meeting new people is to be oneself.
- Meaningful, new relationships should not be expected to develop overnight. It took a great deal of time to develop intimacy in high school friendships; the same will be true of intimacy in university friendships.
- Increased personal freedom can feel both wonderful and frightening. Students can come and go as they choose with no one to "hassle" them. At the same time, things are no longer predictable. The strange environment with new kinds of procedures and new people can create the sense of being on an emotional roller-coaster. This is normal and to be expected.
- Living with roommates can present special, sometimes intense, problems. Negotiating respect of personal property, personal space, sleep, and relaxation needs can be a complex task. The complexity increases when roommates are of different ethnic/cultural backgrounds with very different values. Communicating one's legitimate needs calmly, listening with respect to a roommate's concerns, and being willing to compromise to meet each other's most important needs can promote resolution of issues.
- It is unrealistic to expect that roommates will be best friends. Roommates may work out mutually satisfying living arrangements, but the reality is that each may tend to have his or her own circle of friends.
- University classes are a great deal more difficult than high school classes. There are more reading assignments, and the exams and papers cover a greater amount of material. Instructors expect students to do more work outside the classroom. In order to survive, the student
must take responsibility for his or her actions. This means the student needs to follow the course outlines and keep us with the readings. The student must do the initiating. If a class is missed, it is up to the student to borrow lecture notes from someone who was present. If the student is having difficulty with course work, he or she needs to ask for help, ask to do extra work, request an appointment with an academic advisor, or sign up for tutoring or other academic-skills training.

Counseling Services provides individual and group counseling to students experiencing difficulty in adjusting to university life. Among the most common concerns students bring to our office are: low self-confidence; finding, enhancing, or ending a relationship; getting along with others; puzzling or distressing emotional states; family problems; self-defeating behaviors; controlling use of alcohol and drugs; life purpose and direction; and career decision-making.

Counseling Services consists of qualified, trained mental health professionals and advanced graduate-student interns with backgrounds in psychology, social work, and psychiatry. Any full or part-time student currently enrolled at the University at Buffalo may use the services at the Counseling Services. There is no fee. A student's contacts are private and confidential. No information of any kind is given to anyone else unless the student specifically requests it in writing.

Any interested student can arrange to see a counselor by visiting or phoning Counseling Services, 120 Richmond Quadrangle, Ellicott Complex, North Campus, 645-2720, between 8:30 AM and 5 PM, Monday through Friday (with extended hours on Wednesday and Thursday to 7 PM). The receptionist will arrange for the student to meet with a staff member to discuss his or her concerns.

Consultation with a counselor is an opportunity for the student to describe personal concerns and what he or she hopes to gain from counseling. If
Counseling Services, itself seems to offer the most appropriate services, the student may decide to continue counseling and meet regularly to work on his or her concerns. Counseling may be conducted either individually or in a group with other students expressing similar concerns. If appropriate, the student will be introduced to other resources, on or off campus, which can offer different or more appropriate services from those available at Counseling Services.

In addition to Counseling, Counseling Services offers skill-building workshops on topics such as procrastination, assertiveness, and stress management. Such workshops, scheduled throughout the entire academic year, provide a structured presentation of information and skills practice appropriate to the student's personal development and academic success.

(Adapted from Counseling Services, State University of New York at Buffalo)

4. Share your ideas within the group.

5. Below are some instructions how to behave after work. Read them carefully and answer the following questions:

- Do you agree with the recommendations given?
- Would you like to add something to the instructions?
- Which ones are not appropriate to Ukrainian students?

Drinks after work: the do's and don'ts

by Executive Woman

Drinks after work? How about a few G&Ts, a Karaoke performance, and a drunken encounter with that bloke in accounts? It’s liberating to lose your inhibitions after a stressful week, but embarrassing when you're in the office the morning after. Don't let one thing lead to something you might regret.
1. Work out a code with your good work mates, so if the office lech comes along you can signal to them for help.

2. Don’t tease the man you know has always fancied you. After a few drinks, sitting on his knee and stroking his bald patch may give out the wrong signals.

3. Don’t leave with anyone you don’t want to get into a sticky situation with.

4. Arrange a lift home beforehand, so you don’t have to share a cab or car ride with someone who makes you feel uncomfortable.

5. Thou Shalt Not Mix Your Drinks: wine and whisky cocktails are a surefire way of losing more than your inhibitions.

6. Invite your partner, if possible, to ensure a flirt-free evening and a safe journey home.

7. Don’t confront someone who you feel has been pestering or harassing you in the office – go through the proper channels.

8. If someone is coming on too strong, make it clear their attentions are making you unhappy. You don’t have to be rude, but don’t just laugh it off.

9. If you do get a lift home from a male colleague, don’t invite him in unless you are 100 per cent sure of his character and your intentions.

10. Have fun and leave with your dignity intact.

Follow-up

6. Write your own ‘Tips for Adjusting to the University Life’ for newcomers to the university, bearing in mind your own experience.

Reading and Writing

7. If you are not satisfied with something in the university, you may write a letter of complaint to the university authorities, dean, your tutor etc. Below are some Rules how to be effective when complaining.

Read the information given below and use it while writing letters of complaint.
For you to Know

Letters of Complaint

Letters of complaint are normally written in a formal style.

1. Mild or strong language can be used depending on the feelings of the writer or the seriousness of the complaint, but abusive language must never be used.
2. Use a new paragraph for each different aspect of the topic.
3. You should state the reason for the complaint in the first paragraph.
4. Any complaints you make should be supported with a justification!
5. Complaints and justification should be linked together by such phrases as:
   • In spite of…/Despite the fact that…
   • Although/Even though
   • Nevertheless/However.
6. Use the language typical for letters of complaint as follows:

**Opening Remarks:**

(Mild)  I am writing to complain about…

    I am writing to draw your attention to…

    I am writing to you in connection with…

(Strong)  I want to express my strong dissatisfaction with…

    I feel I must protest / complain about….
Closing Remarks:

(Mild)  I hope/ I assume you will …

I trust the situation will be improved.

I hope the matter will be resolved.

(Strong)  I insist you… at once.

I demand…

Simulation

8. You should spend no more than 20 minutes on this writing task.

You live in a room which you share with another student. However, there are many problems with this arrangement and you find it very difficult to work.

Write a letter to the accommodation officer at the university. In this letter

• describe the situation
• explain your problems and why it is difficult to work
• say what kind of accommodation you would prefer.

Write at least 150 words. You do NOT need to write your own address. Begin your letter as follows:

Dear Sir/ Madam,

Follow-up

9. Next class you will have a possibility to check your study progress with tests. Below are some recommendations on testing which will help you to be effective in taking tests.

DOs and DON'Ts

| ✓  | Make sure you understand the instructions for each task, and follow them exactly. |
| ✓  | Try to answer all the questions – you won’t lose marks for wrong answers, and there’s a chance that you’ll guess correctly. |
| ✓  | Carefully copy your answers in pencil onto the Answer Sheet. |
| ✓  | If a question or part looks difficult, leave it, go on to something else, and come back to it later. |
| ✓  | Leave yourself enough time to check your answers, and to check that you’ve copied them correctly onto the Answer Sheet. |
| ✓  | Concentrate on understanding the main points of a text, rather than every single word. |
| ✓  | Remember that the texts range from a low to a high level of English, so you aren’t expected to understand everything. |

| ✗  | Don’t leave any answers blank. |
| ✗  | Don’t spend too long thinking about a question. |
| ✗  | Don’t worry if you find a text difficult to understand. |
| ✗  | Don’t try to understand every single word in a text. |


You can check how much you know about these DOs and DON'Ts and can use them in practice by doing the activities in Unit 8.
Unit 8  CHECK YOUR PROGRESS

By the end of the unit you will:

• understand assessment requirements
• read and understand rubrics necessary for taking end-of-module test
• have practiced taking test and manage time effectively

Task 1. To check your fluency in academic environment and vocabulary minimum fill in the gaps with one word (a, b, c, d) and put a tick (√) in front of it.

1. Professor Lansdowne's a great speaker. Although there are 150 people listening to his __________, you feel like he's talking directly to you.
   a) presentation
   b) lecture
   c) seminar
   d) tutorial

2. Which informal verb means 'to study very hard' "I'll really have to __________ the books this weekend."
   a) study
   b) read
   c) hit
   d) learn

3. What do you call a weekly meeting of students and a tutor, who come together to discuss an aspect of the course?
   a) a presentation
   b) a lecture
   c) a seminar
   d) a tutorial
4. A: 'I'm finding the course really difficult'
   B: 'Well why don't you discuss it with your tutor when you have your _________ on Thursday?'
   a) presentation
   b) lecture
   c) seminar
   d) tutorial

5. Which of these is an undergraduate qualification?
   a) BA
   b) MA
   c) MSc
   d) PhD

Task 2. To check whether you can behave adequately in various situations choose and underline the one correct answer for each of the ten questions below, keeping in mind situations you can find yourself.

1. If someone says “cheerio” what are they saying in an informal way?
   a. goodbye
   b. thank you
   c. hello
   d. my pleasure

2. Which of the following are NOT kind words of sympathy.
   a. Cheer up!
   b. Don’t worry.
   c. Look on the bright side.
   d. Get a grip.
3. Which of the following do you NOT usually hear at a birthday party?
   a. Sorry, it isn’t much but…
   b. Make a wish!
   c. Commiserations.
   d. Many happy returns!

4. Which of the following ways of giving your opinion is least formal?
   a. In my opinion…
   b. I believe…
   c. I think…
   d. I reckon…

5. A: “Do you mind if I smoke?”
   B: “__________________.” (B thinks it is OK)
   a. Yes, of course.
   b. I’ll take it thanks.
   c. No, of course not.
   d. Help yourself.

6. A: “Shall we walk or take the bus?”
   B: "We _____ _____ walk, we’ve got lots of time."
   a. might as well
   b. should as well
   c. could as well
   d. would as well

7. What is a polite response to the following? Thank you very much!
   a. Me too!
   b. Yours truly!
   c. Of course!
   d. You’re welcome!
8. Which of the following is the most appropriate to say if you did not hear something clearly?
   a. Repeat please.
   b. Sorry, I didn't catch that.
   c. Could you speak better, please?
   d. Excuse me, I'm not hearing you.

9. What would be a suitable way of ending a formal job application letter?
   a. I look forward to hearing from you in due course.
   b. I will hear from you soon.
   c. Please reply as promptly as possible.
   d. I'm really looking forward to meeting you.

10. If you promise to 'give me a ring' you are going to ________.
    a. marry me
    b. telephone me
    c. buy me some jewellery
    d. visit me

Task 3. Look at notices (1 - 5). For each notice which sentence is correct? Circle an appropriate letter (A, B or C).

1. Reproduction in whole or part of any photograph, text or illustration without written permission from the publisher is prohibited.

   A You can copy any photos, text or drawings from the magazine without asking.

   B The publisher must write and allow you to use photos, texts and drawings from the magazine.

   C You must write to the publisher if you want to buy the photos, texts and drawings.
2. IN THE EVENT OF FIRE ASSEMBLE IN THE YARD.

A If there is a fire in the yard, gather together here.
B If there is an assembly problem, meet in the yard.
C If there is a fire, everyone should meet in the yard.

3. 12/06/2005

Message for Nick

Reminder – Call Professor Ivanov 4.50 p.m

Nick should phone Professor Ivanov

A on 6 December.
B at ten to four.
C at ten to five

4. Please vacate this classroom by 3 p.m. at the latest.

A Leave the classroom before three o’clock.
B Return to the classroom by three o’clock.
C Be at the classroom at three o’clock.

5. PLEASE NOTE:

THIS WEEK’S TUTORIALS WILL BE HELD AT 11.15 A.M.
INSTEAD OF 11.45 A.M.
The tutorials this week will take place at:

A quarter to eleven.
B quarter past eleven.
C quarter to twelve.

Task 4. Fill in the gaps by choosing answers from the box below. There are more words than spaces, so you will not use all the given words.

<table>
<thead>
<tr>
<th>were set up</th>
<th>technical colleges</th>
<th>the tutorial system</th>
<th>a considerable amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>separate subjects</td>
<td>were needed</td>
<td>the two oldest</td>
<td>are generally thinking</td>
</tr>
<tr>
<td>economic studies</td>
<td>adult education</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HIGHER EDUCATION IN BRITAIN

When people speak about higher education in Britain they ……………………… (1) of university education. In fact, there ……………………. (2) of post-school education, including part-time as well as full-time study, carried on in technical colleges, teacher training colleges, art colleges, institutes of ……………………. (3) and so on,

…………………. (4) universities in England are Oxford and Cambridge. These date from the Middle Ages. Each consists of largely residential colleges. The teaching is based on ……………………. (5) as well as lectures.

With the advance of industrialization in the nineteenth century and the growth of manufacture technicians and scientists ……………………. (6). The older universities did not produce them. Therefore, science classes ……………………. (7) in industrial centers and they developed into either ……………………. (8) or the «Modern Universities», e.g. London, Durham, Manchester, Birmingham, Leeds, Sheffield, etc.
Task 5. To check how appropriately you can use the given discourse markers in different situations, put the numbers of sentences opposite the given words which can be used in the gaps.

Let me see.
You see.
Right.
Listen.
Well.
Mind you.

1. So, you’re a doctor? ____________, I finish my training next year.

2. A: Do you know her number?
   B: ____________, it’s here somewhere.

3. A: It’s quite a problem, I don’t know, if I can do it.
   B: ____________, I’ll help you, don’t worry.

4. I’m afraid you can’t come in, __________ you have to be 18.

5. __________, let’s start, shall we?

6. I’m tired, ____________, I only had 3 hours sleep last night.

Self-assessment
Task 6. Assess yourself using the keys given in *Part II Self-study Resources.*
Indicative Reading


Module 2

Obtaining and Processing
Information for Specific Purposes
Unit 1 Mineral Resources

Focus on:

- needs analysis
- developing strategies for reading specialism-related texts
- predicting information using headings, sub-headings
- developing a range of terminology in the professional area using reference sources selectively
- taking notes while reading
- labeling diagrams

By the end of the unit you will:

- be aware of the learning objectives of this module
- develop different reading strategies
- have practiced predicting information using various clues
- have practiced taking notes while reading
- develop your range of vocabulary in mining (mineral resources)
- be able to speak about mineral resources in Ukraine
- know different text-types and text genres

Lead-in Focus on learning objectives for the module

1. Group-work. Think on what you usually read for study and work. Why? What for and how? Being in groups of three complete the mind-map given below. Pay attention that how is already made for you. Share your ideas within the whole group.
• orienting yourself to the text
• reading titles and sub-headings
• skimming the text
• scanning the text
• reading paragraphs to understand
• identifying main and supporting ideas
• finding key ideas of every paragraph
• note-taking
• filling in the table
• labelling a diagram
• making a mental note of main ideas in each paragraph
• identifying argument, opinion/attitude and making inferences
• paragraph heading
• summarizing

2. *Pair-work*. Make a list of the main sources of information you know. Compare your list with your partner’s. Make changes if necessary.
3. Look through the list of text-types. Put ticks (√) against those which are necessary for your study and/or future work. If necessary add the list.

<table>
<thead>
<tr>
<th>Text-types</th>
<th>Tick (√)</th>
</tr>
</thead>
<tbody>
<tr>
<td>books, fiction and non-fiction, including literary journals</td>
<td></td>
</tr>
<tr>
<td>magazines</td>
<td></td>
</tr>
<tr>
<td>articles</td>
<td></td>
</tr>
<tr>
<td>journals</td>
<td></td>
</tr>
<tr>
<td>summaries</td>
<td></td>
</tr>
<tr>
<td>dissertations</td>
<td></td>
</tr>
<tr>
<td>textbooks</td>
<td></td>
</tr>
<tr>
<td>newspapers</td>
<td></td>
</tr>
<tr>
<td>instruction manuals, operating manuals</td>
<td></td>
</tr>
<tr>
<td>references</td>
<td></td>
</tr>
<tr>
<td>content page for journal issue/textbook</td>
<td></td>
</tr>
<tr>
<td>abbreviations</td>
<td></td>
</tr>
<tr>
<td>comic strips</td>
<td></td>
</tr>
<tr>
<td>brochures</td>
<td></td>
</tr>
<tr>
<td>prospectuses, leaflets</td>
<td></td>
</tr>
<tr>
<td>advertising materials</td>
<td></td>
</tr>
<tr>
<td>public signs and notices: supermarket, shop, market stall signs</td>
<td></td>
</tr>
<tr>
<td>packaging and labeling on goods, tickets, etc.</td>
<td></td>
</tr>
<tr>
<td>forms and questionnaires</td>
<td></td>
</tr>
<tr>
<td>checklists</td>
<td></td>
</tr>
<tr>
<td>table(s)</td>
<td></td>
</tr>
<tr>
<td>applications</td>
<td></td>
</tr>
<tr>
<td>structured interview</td>
<td></td>
</tr>
<tr>
<td>planner (for the project timing)</td>
<td></td>
</tr>
<tr>
<td>schedule</td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>form(s)</td>
<td></td>
</tr>
<tr>
<td>request form(s)</td>
<td></td>
</tr>
<tr>
<td>prescription(s)</td>
<td></td>
</tr>
<tr>
<td>programme(s)</td>
<td></td>
</tr>
<tr>
<td>specifications for device/equipment</td>
<td></td>
</tr>
<tr>
<td>dictionaries (monolingual and bilingual)</td>
<td></td>
</tr>
<tr>
<td>thesauri</td>
<td></td>
</tr>
<tr>
<td>glossary</td>
<td></td>
</tr>
<tr>
<td>reports</td>
<td></td>
</tr>
<tr>
<td>notes and messages</td>
<td></td>
</tr>
<tr>
<td>databases (news, literature, general information, etc.)</td>
<td></td>
</tr>
<tr>
<td>diagrams, diagrammatic representation of...</td>
<td></td>
</tr>
<tr>
<td>charts, flow charts, bar charts, pie charts</td>
<td></td>
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<tr>
<td>activity flowcharts</td>
<td></td>
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<tr>
<td>question formation flowcharts</td>
<td></td>
</tr>
<tr>
<td>graphs</td>
<td></td>
</tr>
<tr>
<td>business and professional letters, faxes, formal letters</td>
<td></td>
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<tr>
<td>personal letters, informal letters</td>
<td></td>
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<tr>
<td>contracts</td>
<td></td>
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<tr>
<td>essays and exercises</td>
<td></td>
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<tr>
<td>memoranda</td>
<td></td>
</tr>
<tr>
<td>papers</td>
<td></td>
</tr>
<tr>
<td><strong>Others:</strong></td>
<td></td>
</tr>
</tbody>
</table>
4. Share the results of your work with your groupmates and the teacher.

**Reading and Note-taking**
5. Read the title and sub-headings of the text given below. Discuss with your partner the following questions:
   - What is this article about?
   - What do you expect to read about in the article?
   - What do you expect to read in each part of the article?
   - Why are some words printed in **bold**?

6. Read the text from *English Learner's Digest* ‘Mineral Resources of Ukraine’ and mark the names of minerals in any suitable way (*mark*, circle or underline).

**MINERAL RESOURCES OF UKRAINE**

Ukraine is very rich in mineral resources. It contains iron and manganese ores, natural gas, salt, sulphur, graphite, flux, limestone. Ukraine also has deposits of oil, bauxite, ilmenite as well as black coal.

Mineral resources can be classified into three main groups: fuels, metals and non-metals.

**Fuels**

Fuels include deposits of black and brown coal, oil, natural gas and peat. The reserves of black coal are concentrated in two basins: the Donetsk and Lviv Volynian Basins. Black coal is used for coke production. Coke is necessary for metallurgical industry and used while producing iron and steel. Deposits of brown coal or lignite are to be found in many places on the Right Bank of the river Dnieper. They form the large Dnieper Brown Coal Basin. The western oblasts of Ukraine contain small
deposits of brown coal. Brown coal is used as local fuel for power stations, factories and plants also in household.

Three oil and natural gas regions have been discovered in Ukraine: the Subcarpathian, Dnieper-Donets and Black Sea regions. The most promising deposit of oil in Western Ukraine is the Dolyna field. In the Dnieper-Donets Region the largest gas fields are in Kharkiv Oblast. Gas deposits have been discovered in Sumy, Poltava and Dnipropetrovsk Oblasts. The Black Sea Region encompasses the southern part of Zaporizhzhia and Kherson Oblasts as well as northern part of Crimea.

Peat has been used in Ukraine for a long time. Its extraction has been greatly increased. It is important local fuel in industry. It is also widely used as bedding for livestock and as an organic fertilizer. The greatest deposits of peat are in Polissia, but it is also to be found in marshy river valleys.

**Metals**

Metals can be classified in two sub-groups: ferrous and non-ferrous metals. Iron ore is used in manufacture of iron and steel considered to be ferrous metals. The deposits of iron ore are one of the largest in the world. They are concentrated in Kryvyy Rih, Kerch, Kremenchuk and Bilozerka.

Ukraine is also rich in deposits of other ores: manganese, mercury, titanium and others. Ukraine is considered to be one of the richest places in the world for reserves in manganese ore which is used in the manufacture of high quality steel. Several deposits are located in Dnipropetrovsk and Zaporizhzhia Oblasts.

Titanium is important in the space, chemical, atomic and other areas. It has been discovered in Dnipropetrovsk Oblast. Mercury is obtained from cinnabar, the largest deposits being the Mykytyvsky field in the Donetsk Oblast. Ukraine has inexhaustible reserves of raw material for production of metallic magnesium, which is obtained from rich brine of Syvash Bay. Ukraine also has deposits of bauxites, used for producing of alluminium, nickel, cadmium, arsenic and antimony.
Non-metallic Minerals

Ukraine’s depths are in non-metallic minerals, which are widely used in the national economy. The important ones among them are rock and potassium salts, sulphur, fire clay and building materials. The largest deposits of rock salt are centered in Donbas (Artiomovsk) and in Solotvyno (Subcarpathian Region) and in Transcarpathia. Subcarpathia has also deposits of potassium salts (Kalush) and the largest deposit of native sulphur (Rozdolske). The main deposit of fire clay is in the Donbas (Chasovoyarsk). Large reserves of red and grey granite, chalk, marl are also found in Ukraine.

There are also many curative mineral waters in Ukraine.

6. a Using the information from the text complete the table below with appropriate minerals.

WORKSHEET 2.1

<table>
<thead>
<tr>
<th>FUELS</th>
<th>METALS</th>
<th>NON-METALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

b Compare the results with your partner.
7. Using the information from the text complete the table below with the information on mineral resources in every mentioned region/oblast of Ukraine. If necessary add the names of Oblast/Regions.

WORKSHEET 2.2

<table>
<thead>
<tr>
<th>Region/Oblast</th>
<th>Mineral Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dnipropetrivsk Region/Oblast</td>
<td></td>
</tr>
<tr>
<td>Zaporizhzhia Region / Oblast</td>
<td></td>
</tr>
<tr>
<td>Donetsk Region/Oblast</td>
<td></td>
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<tr>
<td>Kharkiv Oblast</td>
<td></td>
</tr>
<tr>
<td>Western Ukraine</td>
<td></td>
</tr>
<tr>
<td>Subcarpathia</td>
<td></td>
</tr>
<tr>
<td>Transcarpathia</td>
<td></td>
</tr>
<tr>
<td>The Black Sea Region</td>
<td></td>
</tr>
<tr>
<td>Crimea</td>
<td></td>
</tr>
<tr>
<td>Kherson Oblast</td>
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<tr>
<td>Poltava Oblast</td>
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<tr>
<td>Sumy Oblast</td>
<td></td>
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</tbody>
</table>
Vocabulary

8. Match the names of minerals (1 – 25) in the left-hand column with their translation (a – y) on the right. Start with those which you can guess easily (they are associated with Ukrainian names). Use a dictionary when necessary.

1. potassium salt
2. marl
3. iron ore
4. mercury
5. bauxite
6. titanium
7. nickel
8. lignite
9. oil
10. natural gas
11. black coal
12. graphite
13. peat
14. rock salt
15. ilmenite
16. cinnabar
17. arsenic
18. bismuth
19. antimony
20. fire clay
21. limestone
22. curative water
23. brine
24. sulphur
25. magnesium

a. сірка
b. торф
c. природний газ
d. миш'як
e. чорне вугілля
f. морська вода
g. ільменіт
h. вапняк
i. цілюща вода
j. сурьма
k. ртуть
l. кам'яна сіль
m. боксит
n. нафта
o. титан
p. магній
q. нікель
r. буре вугілля
s. калійна сіль
t. вісмут
u. вапниста глина
v. залізна руда
w. графіт
x. вогнетривка глина
y. сурьма
9. Check the list of minerals above with those marked by you while reading (see 6). If necessary add minerals and their translation into the list.

10. Find in the text English equivalents to the Ukrainian word ‘родовище’.

11. Find in the text the verbs used with mineral(s), their names or deposit(s). Put them on the lines.
   
   Eg. Ukraine has deposits of ...(oil, bauxite, ilmenite as well as black coal).

![Grammar Reference:]

Passive Constructions.

Follow-up

12. Sketch the map of Ukraine. Complete it with the symbols of minerals. Mark as many minerals as possible. If necessary use the text.

13. Be ready to describe the completed map to the group.
Unit 2  Types of Mineral Resources

Focus on

• developing a range of vocabulary relevant to mining and geology
• synthesizing ideas
• orienting yourself to the text
• reading paragraphs to understand
• identifying main and supporting ideas
• finding key ideas of every paragraph
• skimming the text
• scanning the text

By the end of the unit you will:

• be able to orient yourself to the text using various strategies
• be able to distinguish between main and secondary points
• be able to understand text organisation
• be able to classify and sort the information
• have practiced reading for detail to obtain information (facts, data etc)
• develop your range of vocabulary in mining (mineral resources)

Warm-up

1. Write minerals you know on 16 separate little cards (a mineral on each card).

2. Group-work. Being in groups of three, in turn name the minerals one by one. In case your groupmates have the same mineral on their cards, leave only one card with a name of the mineral. Using your group stockpile of cards, make a list of minerals you know all together. Compare your list with the other groups.
3. Using the stockpile of cards classify the minerals. Be ready to present your group classification and the principles it is based on to the whole group.

Reading

4. Group-work. Form 6 groups of two or three students. Each of the group (1 – 6) will read different paragraphs (A, B, C, D, E, F) from one text. Being in groups choose any of the paragraphs given below and start your group-work with a Prediction Chart.

Prediction Chart

Look at the paragraph you have chosen. Predict:

- What is it about?
- What do you expect to read about in the paragraph?
- What do you expect to read in the other paragraphs?

Share your predictions within your group, explaining what helped you to make the predictions. Put the predictions of all the groups on a poster.

5. Read the chosen paragraph from the list below and check whether your predictions were right.

A. Unsustainable resources make up most of the subsurface materials that geologists are called on to assess. A widely used method for assessing their availability is the McKelvey scheme. In this, the resource base of a commodity is the total amount that exists on Earth. For most commodities this amount is of no practical interest, because much of it could never be economically exploited. The resources represent the part of the resource base that might conceivably be economic in the future. Within this amount, only the reserves are both economic now and identified with some geological certainty. A final fraction, previously part of the reserves, has been already produced and used by society.
B. Coal, oil and gas, minerals and rocks: these are typical geological resources. They are usually considered to be non-renewable, with society progressively depleting a fixed stock of each commodity. By contrast, water or air is usually termed renewable, because natural processes replenish and recondition the stock as it is used.

C. The criteria of the McKelvey scheme mean that estimates of reserves and resources vary with changes in economic conditions and geological knowledge (Fig. 5.2a). For instance, reserves appear to increase if the price of a commodity rises, making it attractive, to exploit lower-grade and less accessible resources. Conversely, increased costs of extraction and processing will lower the assessed reserves. Estimates of resources are dependent on geological assumptions about their formation and occurrence. Refinement of these geological models can either increase or decrease resource estimates.

D. However, renewability is not a simple measure. All resources are renewable on some timescale. For instance, oil and gas are forming now in the world's sedimentary basins, and mineral deposits beneath active volcanoes. On the other hand, water from rainfall may not be adequate to refill reservoirs or rock aquifers. A more helpful measure is the sustainability of a resource; whether or not its rate of use exceeds its rate of renewal. Most geological resources are unsustainable, because their formation processes are very slow on a human timescale. Oil is being used at least a million times faster than it is being recreated. Water and land are potentially sustainable resources, but only if managed correctly.

E. Sustainable resources are part of a cycle where the rate of use does not exceed the rate of natural replenishment. However, this balance involves quality as well as quantity. A geological resource such as groundwater is used and returned to nature in a dirtier, more degraded state than it was extracted. Natural reconditioning systems such as rivers, plants, evaporation and rainfall must be able to clean water fast enough. These systems are easily damaged by pollution, or even by the over-use of water itself. So excessive pumping can lower underground water levels, dry up natural springs, and starve the rivers which would have helped to purify the pumped water after use.
Estimates are further complicated because changes in the reserves can themselves affect economic and social activity, forming feedback loops that slow the potential changes. So, apparent shortages in reserves raise the price of a commodity and therefore the pace of geological exploration, both factors that tend to increase the reserves again. Low estimates of reserves also stimulate recycling of some commodities such as metals, slowing the rate of depletion of the natural stock. Finally, the use of some geological resources may be restrained not by the shortage of reserves but the shortage of safe places to dump the effluents from their production and use. The carbon dioxide derived from burning fossil fuels is the most serious example of this constraint.

6. Being in the same groups (1 – 6), decide on the main idea of the paragraph you have read.

7. Arrange 2 or 3 groups of six with the representatives from each of the groups (1 – 6) who read paragraph A, B, C, D, E, F. Being in groups of six, share the main ideas of the paragraphs you have read.

8. Being in the same groups of six, arrange the text in the correct order and give the title to it.

9. Come back to your original groups (1 – 6) and compare the order of the text and its title done by each of you while being in groups of six. Come to the common decision. Compare the results of your work with the other groups.

10. Check the results of your work with the authentic text given in Part II Self-study Resources. Make any changes if necessary.

Follow-up

11. Using the text ‘Types of Geological Resources’ from Chapter RESOURCES of the textbook Geology and Environment in Britain and Ireland by Woodcock, N. (1994), make a diagram of the classification of minerals proposed by the author. Re-read the whole text if necessary.
Unit 3  Internet Databases and Electronic Libraries

Focus on

• exchanging information on different sources of information, electronic ones, in particular
• locating information
• understanding details in instructions
• filling in forms for academic and professional purposes
• writing detailed instructions

By the end of the unit you will:

• be able to orient yourself to the text using various strategies
• be able to understand text organisation
• be able to locate information by filling in library forms, using library catalogues etc.
• have practiced exchanging information obtained from various sources including the Internet
• have practiced reading and writing instructions
• develop a range of vocabulary in IT and Computing

Lead-in

1. Group-work. Being in groups of three, discuss the following questions:

   • Where do you usually find information in your specialist subjects? How?
   • When using the Internet what search systems do you usually use? Why?
   • What are their advantages and disadvantages if any?
   • Have you ever used electronic libraries? University local net?

2. Group-work. Being in the same groups, think on the main stages of searching information using catalogues of electronic libraries. Share your ideas with the other groups.
Reading and Writing instructions

Step 1

3. Look at the leaflets A and B below. Answer the following questions:

- What is the organisation they are from?
- What are they for?

4. Share your ideas with a partner. Explain what helped you to find the answers.

Leaflet A

Options 1-9 are all access points for all Short Loan material, but 1-2 and 6 are most likely to produce the most effective methods for finding what you are looking for.

NB: ALL SHORT LOANS ARE KEPT IN THE SHORT LOAN SECTION (CURRENTLY LOCATED ADJACENT TO THE ENQUIRY DESK), APART FROM MA, MED THESES WHICH ARE KEPT IN THE STACK.

If you choose to search by Lecturer's Name, please remember to type in the surname first. This will produce a summary list with the name and the number of Short Loan titles linked to that person. By choosing the appropriate entry, a full list of all the books will be displayed. You can then choose to look at the full record of any of these items by entering its line number for more detail.

Reserving Short Loans

Once you have selected your record you will see various options on a line at the bottom of the screen. To see whether the book is out or on the shelf, press C for Copy Status. (Figure 3)

Leaflet A

Reserve short loan on catalogue Aug 2001
UPARishman. library leaflets

101
The College of St Mark & St John Library

HOW TO PLACE RESERVATIONS ON THE CATALOGUE

If you require an item e.g. Book, Video, etc. which has been Checked Out to another borrower you may place a Reservation on it.

[Please note that Reservations are also known as Holds]

Placing A Reservation

- Start a search at the PAC menu
- Select method of search e.g. Title, Author or Subject and search in the usual way (see leaflet – How to search the library catalogue).
- When the required title has been found enter C for Copy status
- At the command line enter R for Reserve
- The system will ask you to enter your library barcode
- Enter the library barcode that is on the front of your Campus Card
- The system will now inform you that you have placed a Reservation (Figure 1). Notification will be sent to your pigeon-hole once the item has been returned

Reservations leaflet Aug 2001
U/ARichman/library leaflets
### HOLD/RECALLS

<table>
<thead>
<tr>
<th>Borrower</th>
<th>BLOGGS, JOE</th>
<th>Copies:</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author</td>
<td>Singer, Peter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Companion to ethics / edited by Peter Singer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>HOLD (First available copy)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Library will notify you by MAIL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Your pickup location will be at College of St Mark and St John Library. A hold on this title will be effective until...

[A date will be supplied by the system. This will normally be 6 weeks from when the reservation is placed]

Press <enter>:

---

**Figure 1**

- Press <enter> this will return you to the **Copy status** screen
- Type **SO** to **Start Over**. This will return you to the main menu

**Reserving items that are ‘Checked In’**

- If an item is not on loan the system will tell you to check the shelves
- If you cannot find the item tell a member of staff who will place a **Trace** on it
- When the item has been traced it will appear on your record as a normal **Reservation**

**What happens when your Reservation has been returned?**

- When a Reservation is returned a notice will automatically be sent to your pigeon- hole informing you that the item is ready for collection
- A message is also placed on your record which will appear next time you use your Campus Card at the issue counter, or can be read through your borrower record either in the library or through the inter/intra nets.
- Ask at the issue counter for your Reservation
- The item will be issued to you on your Campus Card
5. **Group-work.** Arrange two groups. Each group will read only one leaflet (A or B). While reading, decide:
   - What text-type is it?
   - What is the role of figures?
   - Why are some words printed in CAPITALS and the others in **bold**?
Discuss the answers within your groups.

6. **Pair-work.** Arrange the pairs of representatives of both groups. In pairs share the answers of your group. Find out:
   - What is different in both leaflets?
   - What is common in them?
   - What are they for?
Compare the results of your pair-work with the other pair.

7. Fill in the forms given in figures of the leaflet you have read. If you have any problems with it, raise the question for the whole group.

**Follow-up**
8. Make a book loan form typical for Ukrainian libraries. If necessary, go to your University or city library.

**Step 2**
9. Below are the instructions for using the Internet when searching the materials in your specialism area made by last year students. Unfortunately, they are scrambled.

9.1 Being in pairs unscramble the instructions by putting the sentences below in the correct order. Put your answers into the **ANSWER SHEET**.
1. Decide on the topic of your interest.
2. Decide which one you want to download.
3. Repeat this operation as many times as necessary.
4. Switch on to the Internet.
5. Type in the key-words of the topic you are exploring.
6. Choose any search system you know.
7. Click on **Search** or **Go**.
8. Look through the abstracts appeared.
9. Click on the right button of a mouse and select Save as...

### ANSWER SHEET

<table>
<thead>
<tr>
<th>Sentence Number</th>
<th>Your pair decision</th>
<th>The other pair decision</th>
<th>Whole-group decision</th>
<th>After checking at home</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

9.2 Compare the results of your work with the other pairs. Come to the whole group decision.
**Follow-up**

10. Use the instructions for information search in the Internet to obtain information on a topic of your study and/or interest.

11. Put the correct answer into column 5 after practising the unscrambled instructions. If necessary make any changes in the instructions of last year students or write your own ones.

12. Make your own instructions on information search in the Internet.

13. Find any electronic text in your specialism area through the Internet using the instructions you have developed.
Unit 4 Coal Mining

Focus on

- understanding details in instructions
- sharing experience of writing instructions
- indicating specific study- and subject-related information using Internet wikipedia
- orienting yourself to the text
- reading headings and sub-headings
- skimming the text
- scanning the text
- reading and taking notes
- developing a range of vocabulary relevant to mining

By the end of the unit you will:

- be able to orient yourself to the text using various strategies
- be able to understand text organisation
- be able to locate specific information using Contents and References
- be able to skim and scan authentic texts
- have practiced exchanging information obtained from various sources including the Internet
- have practiced reading and taking notes
- develop a range of vocabulary relevant to coal mining

Warm-up

1. Pair-work. In pairs compare your instructions on using the Internet when searching the specialist information.
2. If necessary, make any changes in the instructions you have written.
3. Design the whole-group version of the Instructions.
Lead-in

4. Brainstorm the following questions:
   - What is a Wiki and what wikis do you know?
   - What are advantages and disadvantages of using Wikis?

4.1 Give the definition to Wiki, using the following structure:
   
   A Wiki is (what?) ______ that (do what?) ______.

   It is often used (what for?) _______.

5. Read the definition of a Wiki given on the site: http://www. Wiki - Wikipedia, the free encyclopedia.htm and compare it with your answers.

A wiki is software that allows users to create, edit, and link web pages easily. Wikis are often used to create collaborative websites and to power community websites. They are being installed by businesses to provide affordable and effective Intranets and for Knowledge Management. Ward Cunningham, developer of the first wiki, WikiWikiWeb, originally described it as "the simplest online database that could possibly work". One of the best known wikis is Wikipedia.

Reading and Taking notes

6. Below is a wikipedia, the free encyclopedia.htm found using Google search system (http://www. google.com) with the help of key words ‘Coal Mining’. Group-work. Before reading the text, predict what it will be about by answering the questions from Prediction Chart.

<table>
<thead>
<tr>
<th>Prediction Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>What information can you find in this text?</td>
</tr>
<tr>
<td>What rubrics will it propose to reader?</td>
</tr>
<tr>
<td>How will the whole text be arranged?</td>
</tr>
<tr>
<td>What information would you like to find in this text?</td>
</tr>
<tr>
<td>If you have an access to computer now, will you find more details on the topic?</td>
</tr>
</tbody>
</table>

Share your predictions within your group, explaining what helped you to make the predictions.
7. Look through the text and decide on its structure. Pay attention to the pictures and think of their roles. Exchange your ideas with a partner.

8. Group-work. Arrange three groups A, B and C. Being in your groups, do the following:
   8.1 Group A: Scan the text and find out what types of coal are mentioned in the article.
   8.2 Group B: Scan the text to find out what types of coal mining are mentioned in the article.
   8.3 Group C: Skim the text paying attention to headings and sub-headings and make a plan of the text. Compare your plan with Contents given at the beginning of the text. Be ready to answer the following questions:
   - Were all the rubrics mentioned? If not, which ones were missed?
   - Would you like to make any changes in the Contents of the text? If yes, why?

Coal mining

From Wikipedia, the free encyclopedia

Jump to: navigation, search

This article or section deals primarily with the United States and does not represent a worldwide view of the subject.

Please improve this article or discuss the issue on the talk page.
Coal mining is the extraction of coal from the earth for use as fuel. A coal mine and its accompanying structures are collectively known as a colliery. For the world history see History of coal mining. See also world coal reserves and major coal exporters

Contents

[hide]

- 1 Methods of extraction
  - 1.1 Surface and mountaintop mining
  - 1.2 Underground mining
- 2 History
- 3 Modern Mining in America
- 4 Dangers to miners
- 5 Safer times in modern mining
- 6 Environmental impacts and mitigation
- 7 Footnotes
- 8 References
- 9 See also
- 10 External links

[edit] Methods of extraction

The most economical method of coal extraction from coal seams depends on the depth and quality of the seams, and also the geology and environmental factors of the area being mined. Coal mining processes are generally differentiated by whether they operate on the surface or underground. Many coals extracted from both surface and underground mines require washing in a coal preparation plant.

[edit] Surface and mountaintop mining

If the coal seams are near the surface, the coal is extracted by strip mining. Strip mining exposes the coal by the advancement of an open pit or strip. As the coal is exposed and extracted, the overburden from the still covered coal fills the former pit, and the strip progresses. Most open cast mines in the United States extract bituminous coal. In South Wales open casting for steam coal and anthracite is practiced.
Mountaintop removal is a form of surface mining that takes place at the topmost portion of a mountain, and is a technique that is commonly applied in Appalachia. Utilized for the past 30 years, mountaintop mining involves removing the highest part of the mountain for the maximum recovery of coal. The process is notorious for destruction of entire ranges. So is the practice of hollow fills, or filling in valleys with mining debris, covering streams and disrupting ecosystems. [1]

[edit] Underground mining

Most coal seams are too deep underground for open cast mining and thus this type of mining is called underground mining. In deep mining, the room and pillar or bord and pillar method progresses along the Mammoth coal vein seam, while pillars and timber are left standing to support the coal mine roof. A most dangerous method of operation in deep mining and is known as robbing the pillars. This is where miners attempt to remove and/or retreat between the timbers in order to get coal out of the main coal seam, allowing the roof to cave in. This method of mining is used principally in the United States and has contributed to many fatalities in the industry of coal mining. There are four major underground mining methods:

- Longwall mining – accounts for about 50% of underground production. The longwall shearer has a face of 1000 feet or more. It is a sophisticated machine with a rotating drum that moves mechanically back-and-forth across a wide coal seam. The loosened coal falls onto a pan line that takes the coal to the conveyor belt for removal from the work area. Longwall systems have their own hydraulic roof supports for overlying rock that advance with the machine as mining progresses. As the longwall mining equipment moves forward, overlying rock that is no longer supported by the coal that has been removed is allowed to fall behind the operation in a controlled manner. The supports make possible high levels of production and safety. Sensors detect how much coal remains in the seam while robotic controls enhance efficiency. Longwall systems allow a 60-to-80% coal recovery rate where the surrounding geology allows their use.

- Continuous mining– Utilizes a machine with a large rotating steel drum equipped with tungsten carbide teeth that scrape coal from the seam. Operating in a “room and pillar” system – where the mine is divided into a series of 20-to-30 foot “rooms” or work areas cut into the coalbed – it can mine as much as five tons of coal a minute – more than a miner of the 1920s would produce in an entire day. Continuous miners account for about 45% of underground coal production, and also utilize conveyors to transport the removed coal from the seam. Remote controlled continuous miners are used to work in a variety of difficult conditions.
seams and conditions and robotic versions controlled by computers are becoming increasingly common.

- Conventional mining – An older practice that uses explosives to break up the coal seam, after which the coal is gathered and loaded onto shuttle cars or conveyors for removal to a central loading area. This process consists of a series of operations that begins with “cutting” the coalbed so it will break easily when blasted with explosives. This type of mining accounts for less than 5% of total underground production in the U.S. today.

- Shortwall mining– A method that accounts for less than 1% of deep coal production, shortwall involves the use of a continuous mining machine with moveable roof supports, similar to longwall. The continuous miner shears coal panels 150-200 feet wide and more than a half-mile long, depending on other things like the strata of the Earth and the transverse waves.

[edit] History

Main article: History of coal mining

The oldest continuously worked deep-mine in the UK and possibly the world is Tower Colliery at the northern end of the south Wales valleys. This colliery was started in 1805 and at the end of the 20th century it was bought out by its miners rather than being allowed to be closed.

The World Championships in coal-carrying take place every Easter Monday, at Ossett in West Yorkshire, UK. The race starts from the site of the old Savile & Shaw Cross colliery.

The first commercial coal mines in the United States were started in 1748 in Midlothian, Virginia, near Richmond, Virginia.[2]

In the 1880s, Coal-cutting machines became available (prior to that, coal was mined underground by hand.)

By 1912, surface mining was underway with steam shovels specifically designed for coal mining.

[edit] Modern Mining in America

Technological advancements have made coal mining today more productive than it has ever been. To keep up with technology and to extract coal as efficiently as possible modern mining personnel must be highly skilled and well trained in the use of complex, state-of-the-art instruments and equipment. Future coal miners have to be highly educated and many jobs require four-year college
degrees. Computer knowledge has also become greatly valued within the industry as most of the machines and safety monitors are computerized.

The increase in technology has significantly decreased the mining workforce from 335,000 coal miners working at 7,200 mines fifty years ago to 104,824 miners working in fewer than 2,000 mines today. As some might see this as a sign that coal is a declining industry its advances has reported an 83% increase of production from 1970 to 2004. These statistics are provided by the National Mining Association.

**[edit] Dangers to miners**

Historically, coal mining has been a very dangerous activity. Open cut hazards are principally slope failure, underground mining roof collapse and gas explosions. Most of these risks can be greatly reduced in modern mines, and multiple fatality incidents are now rare in the developed world. \(^3\)

However, in lesser developed countries, thousands continue to die annually in coal mines. China, in particular, has the highest number of coal mining related deaths in the world, with official statistic 6,027 deaths in 2004\(^4\). To compare, the USA reported 28 deaths in the same year\(^5\). Coal production in China (highest in the world) is only double compared with USA\(^6\).

Chronic lung diseases, such as pneumoconiosis (black lung) were once common in miners, leading to reduced life expectancy.

Build-ups of a hazardous gas are known as damps, possibly from the German word "Dampf" which means steam or vapor:

- Black damp: a mixture of carbon dioxide and nitrogen in a mine can cause suffocation
- After damp: similar to black damp, an after damp consists of carbon dioxide and nitrogen and forms after a mine explosion
- Fire damp: consists of mostly methane, a flammable gas
- Stink damp: so named for the rotten egg smell of the sulfur, a stink damp can explode
- White damp: mainly carbon monoxide, suffocates like black damp [also, Carbon monoxide is very toxic, even in concentrations as low as 5 ppm]

There have been many deaths related to the safety conditions that exist in coal mines around the world. (See: Mining accidents)
[edit] Safer times in modern mining

Improvements in mining methods (e.g. longwall mining), hazardous gas monitoring (such as safety-lamps or more modern electronic gas monitors), gas drainage, and ventilation have reduced many of the risks of rock falls, explosions, and unhealthy air quality. Statistical analyses performed by the U.S. Department of Labor’s Mine Safety and Health Administration (MSHA) show that between 1990 and 2004, the industry cut the rate of injuries (a measure comparing the rate of incidents to overall number of employees or hours worked) by more than half and fatalities by two-thirds following three prior decades of steady improvement.

According to the Bureau of Labor Statistics, coal mining is not even among the top 10 most dangerous occupations in America per capita. Pilots, truck and taxi drivers, loggers, fishermen, roofers and other occupations face greater on the job risks than coal miners.

[edit] Environmental impacts and mitigation

Coal mining causes adverse environmental impacts. These include:

1. Release of methane, a dangerous greenhouse gas
2. Interference with groundwater and water table levels
3. Impact of water use on flows of rivers and consequential impact on other landuses
4. Dust
5. Subsidence above tunnels, sometimes damaging infrastructure eg roads in the Lake Macquarie area in NSW, Australia
6. Rendering land unfit for the common usage of the area.

In addition, burning of coal, mainly for power generation, is a leading contributor to greenhouse gas emissions, climate change and global warming.
Strip mining severely alters the landscape, which has damages environmental value in the surrounding land. Mountaintop removal to remove coal is a large negative change to the environment. While there are sometimes requirements for remediation of the strip mined area, the remediation is often delayed for decades. One of the legacies of coal mining is the low coal content waste forming boney piles.

In response to negative land effects of coal mining and the abundance of abandoned mines in the USA, the federal government enacted the Surface Mining Control and Reclamation Act of 1977 (SMCRA), which requires reclamation plans for future coal mining sites. Reclamation plans must be approved and permitted by federal or state authorities before mining begins. As of 2003, over 2 million acres (8000 km²) of previously mined lands have been reclaimed in the United States.

All forms of mining are likely to generate areas where coal is stacked and where the coal has significant sulphur content, such coal heaps generate highly acidic, metal-laden drainage when exposed to rainfall. These liquors can cause severe environmental damage to receiving water-courses. Coal mining releases approximately twenty toxic release chemicals, of which 85% is said to be managed on site. In modern mining, operations must, under federal and state law, meet standards for protecting surface and ground waters from contamination, including acid mine drainage (AMD). To mitigate these problems, water is continuously monitored at coal mines. The five principal technologies used to control water flow at mine sites are: diversion systems, containment ponds, groundwater pumping systems, subsurface drainage systems, and subsurface barriers. In the case of AMD, contaminated water is generally pumped to a treatment facility that neutralizes the contaminants. Still, AMD remains a large problem, emanating from coal mines abandoned in the United States prior to SMCRA.

It is also thought that coal mining is harmful to the quality of air in the surrounding regions. While burning of coal in power plants is most harmful to air quality, the process of mining can release pockets of hazardous gases. These gases may pose a threat to coal miners as well as a minor source of air pollution. In recent years, there has also been concern for the safety of miners who work in subsurface coal mines.

[edit] References

- Daniel Burns. The modern practice of coal mining (1907)
- James Tonge. The principles and practice of coal mining (1906)
- Hayes, Geoffrey. Coal Mining (2004), 32 pp
9. Come back to your original groups. Compare and discuss the results of your group-work. Share your experience focusing on your difficulties and ‘know-hows’ of reading developed.

10. Pair-work. In pairs decide on what changes you will make in the content of the web-site text, if you were designers of a web-site page ‘Coal Mining’.

Vocabulary
11. Using the text match the types of underground mining on the left with their descriptions on the right.

1. Longwall mining
   This type uses explosives to break up the coal seam, after which the coal is gathered and loaded onto shuttle cars or conveyors for removal to a central loading area. This process consists of a series of operations that begins with “cutting” the coal bed so it will break easily when blasted with explosives.
2. Continuous mining  A method that accounts for less than 1% of deep coal production, it involves the use of a continuous mining machine with moveable roof supports, similar to longwall. The continuous miner shears coal panels 150-200 feet wide and more than a half-mile long, depending on other things like the strata of the Earth and the transverse waves.

3. Conventional mining  This method utilizes a machine with a large rotating steel drum equipped with tungsten carbide teeth that scrape coal from the seam. Operating in a “room and pillar” system – where the mine is divided into a series of 20-to-30 foot “rooms” or work areas cut into the coal bed.

4. Shortwall mining  The longwall shearer has a face of 1000 feet or more. It is a sophisticated machine with a rotating drum that moves mechanically back-and-forth across a wide coal seam.

12. Match the words (1 – 12) with their definitions (A – L) given in the box.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1. bed</td>
<td>3. bituminous coal</td>
</tr>
<tr>
<td>2. coal</td>
<td>4. coal mine</td>
</tr>
</tbody>
</table>

A) A stratum of coal or other sedimentary deposit.  
B) A middle rank coal (between subbituminous and anthracite) formed by additional pressure and heat on lignite. Usually has a high Btu value and may be referred to as ‘soft coal’.
<p>| C) An area of land and all structures, facilities, machinery, tools, equipment, shafts, slopes, tunnels, excavations, and other property, real or personal, placed upon, under, or above the surface of such land by any person, used in extracting coal from its natural deposits in the earth by any means or method, and the work of preparing the coal so extracted, including coal preparation facilities. British term is &quot;colliery&quot;. |
| D) A solid, brittle, more or less distinctly stratified combustible carbonaceous, formed by partial to complete decomposition of vegetation; varies in color from dark brown to black; not fusible without decomposition and very insoluble. |
| <strong>5. coal reserves</strong> |
| <strong>7. coke</strong> |
| <strong>6. conventional mining</strong> |
| <strong>8. crop coal</strong> |
| E) Measured tonnages of coal that have been calculated to occur in a coal seam within a particular property. |
| F) Coal at the outcrop of the seam. It is usually considered of inferior quality due to partial oxidation, although this is not always the case. |
| G) A hard, dry carbon substance produced by heating coal to a very high temperature in the absence of air. |
| H) The first fully-mechanized underground mining method involving the insertion of explosives in a coal seam, the blasting of the seam, and the removal of the coal onto a conveyor or shuttle car by a loading machine. |</p>
<table>
<thead>
<tr>
<th>9. deposit</th>
<th>11. drift mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. development mining</td>
<td>12. fossil fuel</td>
</tr>
<tr>
<td>I) An underground coal mine in which the entry or access is above water level and generally on the slope of a hill, driven horizontally into a coal seam.</td>
<td>J) Work undertaken to open up coal reserves as distinguished from the work of actual coal extraction.</td>
</tr>
<tr>
<td>K) Any naturally occurring fuel of an organic nature, such as coal, crude oil and natural gas.</td>
<td>L) Mineral deposit or ore deposit is used to designate a natural occurrence of a useful mineral, or an ore, in sufficient extent and degree of concentration to invite exploitation.</td>
</tr>
</tbody>
</table>

**Follow-up**

13. Choose any of the articles on the site you are interested in. You can access any of them on the site http://en.wikipedia.org. Be ready to explain your choice for the whole group.

14. Prepare a mini-presentation on the information you have obtained from the article.

15. Read the article you have chosen and be ready to talk about your personal interpretation of it fulfilling the series of Preparation Tasks:
   - Do a quick reading – skim rapidly, or read the beginning and the end of the article. Jot down what you think the article is about.
   - Read and note the main points raised in each of the paragraphs.
   - Try to make a diagram reflecting the main ideas of the article.
• Write a very brief 'record card' length summary of your own to remind you what the article is about. You may use this card when speaking about the article.
• Choose a quotation(s) from the text to use it as support in discussion.

For writing 'record card' see Section 2.5.1 in Part II Self-study Resources.
Unit 5 Coal Extraction

Focus on

• developing a range of vocabulary relevant to coal mining
• describing charts and diagrams
• labelling diagrams
• reading and describing figures
• reading for detail

By the end of the unit you will:

• be able to read and interpret figures, charts, diagrams etc.
• be able to locate information using various clues
• be able to understand details in authentic texts related to mining
• have practised exchanging information obtained from various sources
• have practised reading and describing figures, charts, diagrams etc., instructions
• develop a range of vocabulary relevant to coal mining

Lead-in

1. Draw your mind-map (a spider gram) for coal mining. Think of methods, equipment etc. used while mining.

![Mind-map diagram]
2. **Pair-work.** Describe your mind-map to a partner.

3. Listen to your partner’s mind-map description. Make any changes in your mind-map if appropriate.

**Reading and Speaking**

4. You are going to read the text. Look at the figures from the text given below and try to predict:
   - What will the text be about?
   - What is the title of the text?
   - What will sub-headings of the text be?

5. **Pair-work.** Share your predictions with your partner.

6. Sign the figures. *Example: Fig. 1. Surface Mining.*

---

**Fig. 1.**

**Fig. 2.**
Background Information – How is coal mined?

As was the case 50 years ago, most coal is produced from two major types of mines – underground and surface. But the methods for recovering coal from the earth have undergone drastic changes in the past 25 years, as a consequence of technological advances.

Fifty years ago when most coal mining was done manually, underground mines accounted for 96 percent of the coal produced each year. Today, almost 60 percent is produced from surface mines. Most underground mines in the United States are located east of the Mississippi River, although there are some in the West, particularly in Utah and Colorado.

More than two-thirds of the coal produced underground is extracted by continuous mining machines in the room-and-pillar method. The continuous mining machine contains tungsten bits on a revolving cylinder. The continuous miner breaks the coal from the face and then conveys it to a waiting shuttle car which transports it to the conveyor belt to be moved to the surface. No blasting is needed. After advancing a specified distance, the continuous miner is backed out and roof bolts are put in place. The process is repeated until the coal seam is mined.
Another method, called longwall mining, accounts for about 20 percent of production. This method involves pulling a cutting machine across a 400 to 600 foot long face (longwall) of the coal seam. This machine has a revolving cylinder with tungsten bits that shear off the coal. The coal falls into a conveyor system which carries it out of the mine. The roof is supported by large steel supports, attached to the longwall machine. As the machine moves forward, the roof supports are advanced. The roof behind the supports is allowed to fall. Nearly 80 percent of the coal can be removed using this method. The remaining 11 percent of underground production is produced by conventional mining which uses explosives to break up the coal for removal.

Half of the minable surface coal in the United States is located in the West, but significant amounts are also present in Appalachia and Midwestern states. Surface mining is used when the coal seam is located relatively close to the surface, making underground mining impractical.

Before a company can surface mine, it must gather information about the site regarding growing conditions, climate, soil composition, vegetation, wildlife, etc. With this information, the company then applies to the state or federal government for a permit to mine. The company must post a bond for each acre of land it mines to assure that it will be properly reclaimed.

Most surface mines follow the same basic steps to produce coal. First, bulldozers clear and level the mining area. The topsoil is removed and stored for later use in the reclamation process. Many small holes are drilled through the overburden (dirt and rock above the coal seam) to the coal seam. Each is loaded with explosives which are discharged, shattering the rock and overburden. Giant power shovels or draglines clear away the overburden until the coal is exposed. Smaller shovels then scoop up the coal and load it onto trucks, which carry the coal to the preparation plant.

Once the coal is removed, the land is returned to the desired contour and the topsoil is replaced. Native vegetation and/or trees are planted. Coal companies operating surface
mines must comply with strict requirements and regulations of the Federal Surface Mining Control and Reclamation Act. A crucial part of the surface mining process is restoring a mined site to acceptable ecological conditions, which means it must be made as productive as it was prior to mining. There are farms, parks, wilderness and recreation areas on what was once surface mines.

The major stigma associated with the coal industry today is the abandoned or "orphan" mines of the early coal mining years. These orphan mines are systematically being reclaimed under the Surface Mining Act taxes coal producers at the rate of 35 cents a ton for surface mined coal, 10 cents a ton for lignite mined coal, and 15 cents a ton for underground mined coal. The tax is paid to the government and is used to reclaim the orphaned mines.

Provided by National Energy Foundation.
http://www.coaleducation.org

8. Match the terms (1 - 8) with their definitions (a - h).

1. room and pillar mining a) A coal mine cave-in especially in permanent areas such as entries.

2. roof bolt b) An underground mine in which the main entry or access is by means of a vertical shaft.

3. roof fall c) A mine in which the coal lies near the surface and can be extracted by removing the covering layers of rock and soil.

4. roof support d) A method of underground mining in which approximately half of the coal is left in place to support the roof of the active mining area. Large ‘pillars’ are left until ‘rooms’ of coal are extracted.

5. shaft mine e) Layers of soil and rock covering a coal seam. Overburden is removed prior to surface mining and replaced after the coal is taken from the seam.

6. shortwall f) Posts, jacks, roof bolts and beams used to support the rock overlying a coal seam in an underground mine. A good roof support plan is part of mine safety and coal extraction.

7. surface mine g) A long steel bolt driven into the roof of
underground excavations to support the roof, preventing and limiting the extent of roof falls. The unit consists of the bolt (up to 4 feet long), steel plate, expansion shell, and pal nut. The use of roof bolts eliminates the need for timbering by fastening together, or "laminating," several weaker layers of roof strata to build a "beam."

8. **overburden h)** An underground mining method in which small areas are worked (15 to 150 feet) by a continuous miner in conjunction with the use of hydraulic roof supports.

9. **Pair-work.** Describe any of the figures above to your partner. While listening to your partner, sketch the mining method being described. Compare the sketch with the original drawing given in the text.

**Follow-up**

10. Sketch a mining method typical for your region.

11. Write the description of the figure. Be ready to give mini-presentation on mining methods used in your region. Use *Part II Self-study Resources* when necessary.
Unit 6  Resource Extraction

Focus on

- giving mini-presentations on topics within academic and/or professional field
- reading and understanding rubrics for testing
- following test instructions
- orienting yourself to the text
- finding key ideas
- identifying main and supporting ideas of each paragraph
- skimming the text
- scanning the text
- reading for detail
- reading figures and charts

By the end of the unit you will:

- be able to read and understand rubrics for testing
- be able to understand and follow test instructions
- be able to read for detail
- be able to make mini-presentations on mining methods using the information obtained from specialism-related texts
- be able to read and understand figures illustrating texts
- be aware of various mining methods and share the information got on them from various sources

Lead-in

1. *Pair-work*. Being in pairs, share the mining methods you are aware of. Describe the mining method used in your region as an example.
2. Group-work. Give mini-presentations of the mining methods used in your regions. Decide on what mining methods are typical for Ukraine.

3. Check your progress according to the Quiz proposed by the Internet site getinfo@osmre.gov. Before doing this Quiz read carefully the instructions given below. Instead of ‘clicking red button next to each answer’, put tick (on the left) against right answer. When you finish compare the results with your groupmates.
If possible use this site to check yourself. Compare the score with your groupmates.

Coal mining

Test Instructions:

1. Read the short paragraph below (green text)
2. Click the red button next to each answer you think is most correct.
3. If you do not know the answer, do not guess, since wrong answers are penalized.
4. If you check the wrong red button, simply click the correct one to change it.
5. If you have checked a red button with a guess and wish to deselect all red buttons for that question, just click the lit red button.
6. When finished, click the "Click When Finished Button" at the end of the test. Your score will appear below it, and all correct answers will be lit with a green button. Check the "green lit" answers you didn't know to correct your mistakes.
Last year 57% of the coal was produced from surface mines and 44% from underground mines. Current mining methods require large equipment and specialized technical skills. In the last 20 years mines have become larger; but, fewer in number.

<table>
<thead>
<tr>
<th>Today's mine workers need what skills?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining engineering</td>
</tr>
<tr>
<td>Heavy equipment operation</td>
</tr>
<tr>
<td>Blasting</td>
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<tr>
<td>Environmental problem solving</td>
</tr>
<tr>
<td>All of the above</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Most mines are operated by?</th>
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</thead>
<tbody>
<tr>
<td>Small businessmen</td>
</tr>
<tr>
<td>Colleges and universities</td>
</tr>
<tr>
<td>Land owners who have the coal resources</td>
</tr>
<tr>
<td>Large mining companies</td>
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<tr>
<td>None of the above</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The mining type that produces the most coal?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underground mining</td>
</tr>
<tr>
<td>Auger mining</td>
</tr>
<tr>
<td>Surface mining</td>
</tr>
<tr>
<td>Contour mining</td>
</tr>
<tr>
<td>None of the above</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coal can be surfaced mined if it's?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 600 feet deep</td>
</tr>
<tr>
<td>Not more than 2,000 feet deep</td>
</tr>
<tr>
<td>20 to 40 feet deep</td>
</tr>
<tr>
<td>On the surface of the ground</td>
</tr>
<tr>
<td>None of the above</td>
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</tbody>
</table>
In 1977 we had more than 4,000 coal mines, today there are about?

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>2,308</td>
<td></td>
</tr>
<tr>
<td>Just under 4,000</td>
<td></td>
</tr>
<tr>
<td>270</td>
<td></td>
</tr>
<tr>
<td>Almost 8,000</td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td></td>
</tr>
</tbody>
</table>

Office of Surface Mining
1951 Constitution Ave. N.W.
Washington, D.C. 20240
202-208-2719
getinfo@osmre.gov

**Reading for detail**

4. Look through the text from the textbook *Geology and Environment in Britain and Ireland* by Woodcock, N. (1994), pay attention to the words printed differently (in **bold**, *italics*) and predict what information you will find in the text. Share your predictions within groups of three.

5. Read the text and check whether your predictions were right.

**Underground mining**

*Longwall mining* is the main method of extracting coal in Britain; it can be used for any laterally continuous rock body with a uniform thickness and a gentle dip. Coal is removed by a track-mounted cutter moving along a face several hundred metres long. The cutter operates beneath a roof supported by hydraulic jacks, which are slid forwards after the cutter has passed. The roof behind the jacks collapses onto the former floor of the coal seam, the **goaf**. The face can advance by
up to a kilometre each year. Access to it is maintained by tunnels joining each end of the face to the mine haulage roadways.

The roof collapse behind a longwall face propagates upwards and outwards through the overlying rock with a geometry measured by the angle of draw.

This varies with the rock strength but is roughly 30°, resulting in a subsidence bowl at the ground surface considerably wider than the extracted panel of coal. The maximum depth of the subsidence bowl is always less than the seam thickness, because of the volume increase as cracks open up within the subsiding rocks. Also damaging to built structures is the ground tilt as the subsidence wave passes, and the related cycle of surface extension and shortening. However, these effects were more severe with older shallow mining than during modern mining of deep seams. Moreover, the pattern and timing of subsidence over longwall faces is predictable, so that structures at risk can be strengthened before mining begins.

Pillar-and-stall working is also suited to gently dipping beds. The deposit is only partially removed, leaving intervening pillars to support the roof. The pillars are elongate or American coal mines the pillars are removed on retreat from the seam, allowing roof collapse similar to that of a longwall face.

However, pillars have been left in place in most mines in the British Isles. These include modern gypsum mines, and old mines for coal, building stone, ironstone and clays.

The old mines present a serious hazard to development in old mining areas. An example from Suffolk involved roof collapse into the passages of underlying chalk mines at 10-12m depth. Collapse was triggered by changes in groundwater flow induced by building development in the late 1960s. Other types of failure can include multiple pillar failure, and pillar punching into weak roof or floor rocks.

Bell pits are a yet older form of mining, mostly dating from before 1700. Shafts were sunk to extract unsupported circular areas in an underlying seam, the shape of the pit depending on the strength of the roof rock. Bell pits are rarely
more than 10m deep, so that they represent a localized and distinctive subsidence hazard.

*Deep caved mining* is used to extract steeply dipping and irregular mineral deposits, typically metallic ores. One common method is to mine the ore body from below, through a vertical *shaft* and horizontal levels. The first ore is removed to form a void or *stope*. Later ore is either allowed to remain as a working floor to the stope, eventually to be tapped off from below, or is replaced by *waste fill* from the surface processing plant. Shallow ore can be accessed without a shaft through an *adit*, and mined upwards or downwards. Any deep caved technique may produce a subsidence bowl at the ground surface as abandoned stopes collapse by caving of their roofs. Only thorough backfilling can prevent this, a rare practice in old mines unless necessary for the mining strategy.

*Brining* is the pumping of dissolved salt from underground evaporate beds. Extracted water is replaced in *wild brining* by natural groundwater and in *controlled brining* by injected freshwater. Controlled brining can produce stable cavities that cause ground subsidence only if allowed to coalesce. Wild brining is less predictable and has produced large subsidence zones in the Cheshire saltfield, often elongated over subsurface water streams. Even more damaging methods, before they were banned about 1930, were pillar-and-stall mining with excessive extraction ratios and *bastard brining* – pumping of water from the abandoned mines. Sinkholes about 100 m wide and 10 m deep formed catastrophically as remaining pillars dissolved and collapsed, causing major property damage.

---

*Woodcock, N. (1994) Geology and Environment in Britain and Ireland*

6. Using the information from the text fill in the gaps choosing one of the options.

1. The pumping of dissolved salt is __________
   
   A  longwall mining.
   B  open-pit mining.
   C  brining.
   D  deep caved mining.
2. To extract unsupported circular areas in an underlying seam ________ is used.
   A  open pit
   B  longwall mining
   C  bell pit
   D  deep caved mining

3. ________ is used for gently dipping beds.
   A  longwall mining
   B  pillar- and stall working
   C  deep caved mining
   D  bell pits

4. In ________ coal is removed by a track-mounted cutter moving along a face several hundred metres long.
   A  bell pits
   B  deep caved mining
   C  longwall mining
   D  pillar - and stock working

5. The maximum depth of the subsidence bowl is always ________ the seam thickness.
   A  the same as
   B  more than
   C  equal to
   D  less than

6. Common method to mine the ore body from below is to use ________
   A  pillars.
   B  a vertical shaft.
   C  cutters.
   D  adit.
7. Shallow ore can be accessed through ________
   A shaft.
   B pillar.
   C adit.
   D waste fill.

Follow-up

7. Think on the methods of underground mining in Ukraine. Be ready to describe them to a partner following the structure of the text read.

8. Make figures to illustrate your talk.

9. Write a text on underground mining in Ukraine following the model of the text you have read and the information you have got.

10. Make accompanying drawings to your text. You may use figures designed by you for illustrating your mini-presentation on methods of underground mining in Ukraine.
Unit 7  Safety of Mining Operations

**Focus on**

- giving clear arguments
- sharing information obtained from various sources
- identifying text genres and text-types
- identifying and using language forms appropriate to formal and colloquial academic and professional registers
- understanding different corporate cultures within specific professional contexts
- reading and understanding instructions for operation of devices, equipment etc.
- following instructions

**By the end of the unit you will be able to:**

- use various strategies to obtain information from the texts related to study and specialism area
- understand safety instructions
- identify text-genres and writer’s purpose
- share the information obtained from the texts referred to your study and specialism area
- use figures, drawings etc. to illustrate your talk

**Start-up**

1. *Pair-work.* Brainstorm in pairs the following questions and be ready to give your arguments for making your decision:

   - Are problems of mine safety typical for all the countries? If yes, why?
• Is it possible to avoid accidents and catastrophes while underground mining in Ukraine? If yes, how?
• What are the main reasons of accidents while mining?

2. Whole-group discussion. Share the results of your work within your group-mates.

Reading and Discussing

3. Below are three texts on mine safety. Working in groups of three or four, decide on the text genre and text-type of each. Be ready to explain how you have guessed.

Text One

Rescue workers found 23 miners missing underground after a gas explosion at a Ukrainian colliery and were bringing them to safety today through a narrow ventilation shaft.

They were still searching for another 13 still missing hundreds of metres underground after yesterday's explosion.

Officials overseeing rescue efforts in the Donbass coalfield initially announced that two miners had been brought to the surface more than 24 hours after the blast caused widespread damage to the Karl Marx pit. One man was found dead.

Rescue teams later located 21 more miners and began the laborious process of evacuating them through the ventilation shaft after the main shafts were badly damaged.

By mid-afternoon, officials quoted by Ukrainian media said six miners had been lifted to the surface at the pit in Yenakiyevo, northeast of the regional centre Donetsk. One was in serious condition.

"This is a narrow shaft and the process is going to take a long time, several hours," Marina Nikitina, spokeswoman for the regional mine safety inspectorate, told Reuters. "We hadn't even dared hope for this number."

First Deputy Prime Minister Oleksander Turchynov, the most senior government official at the site, said rescuers using the ventilation shaft had now pushed down to the 1,000 metres level underground, where the explosion had occurred.

"We will talk about people being saved only once they are safe on the surface," he told reporters.

Gas explosions are a frequent occurrence in Ukraine's mines, many of which are unprofitable and date from the 19th century. Many coal deposits are at a depth of one kilometre or more, making mining operations more difficult.

(the Independent world accessed at http://www.independent.co.uk/news)
Text Two

Mine Health and Safety Act, 1996

The Act has been updated up to and including the regulations published in Government Gazette No. 29458 dated 15 December 2006

To provide for protection of the health and safety of employees and other persons at mines and, for that purpose:

- to promote a culture of health and safety;
- to provide for the enforcement of health and safety measures;
- to provide for appropriate systems of employee, employer and State participation in health and safety matters;
- to establish representative tripartite institutions to review legislation, promote health and enhance properly targeted research;
- to provide for effective monitoring systems and inspections, investigations and inquiries to improve health and safety;
- to promote training and human resources development;
- to regulate employers' and employees' duties to identify hazards and eliminate, control and minimise the risk to health and safety;
- to entrench the right to refuse to work in dangerous conditions; and
- to give effect to the public international law obligations of the Republic relating to mining health and safety;

and to provide for matters connected therewith.

Mine Health and Safety Act, 1996
Chapter 2 Health and Safety at Mines
22. Employees' duties for health and safety

(available at http://www.acts.co.za/mhs/index.htm) – Acts online

Text Three

ALL NINE ALIVE

Chapter One

The Miners

For thousands of years, sinuous stripes of bituminous coal have lain beneath the surface of the wooded hills and valleys of what is now Somerset County. Its extraction fueled an industrial revolution, lured our immigrant ancestors, and contributed to Western Pennsylvania's reputation for hard work and hard living.

As a piece of our history, coal mining has seemed herculean, monumental, even romantic.
But on the afternoon of July 24, it was just a job.

Eighteen miners left their homes in small towns dotting the Laurel Highlands and drove to Quecreek Mine, which lay beneath a dairy farm in Lincoln Township just off Somerset Pike. They gathered at its entry portal at 2:30 p.m., just as most of them had for five or six days a week since March.

There they split into two crews of nine, one to enter and head straight south, the other to bear left and begin chipping the east face.

With clouds rolling in and out, it was an agreeable day. But soon they would leave it behind, riding a motorized cart on a dug-out ramp a mile-and-a-half long, which would take them into the cool darkness 245 feet below the surface as far down as a 25-story building is up.

At 31, Harry Blaine Mayhugh Jr. was the youngest on his crew of nine. They rarely called him by his given names. He was "Stinky." He called them by equally affectionate nicknames.

Mayhugh was one of the guys. The husky 6-footer played football and baseball at Meyersdale High School. Just after he graduated in 1989, he started dating Leslie Foy, who was entering her junior year. They became engaged while he was in the U.S. Navy, and after his two years were up in 1992, they got married and had a son and a daughter.

Mayhugh worked in a factory and then for a lawn-care company before becoming a deep miner in 1997. Despite having to contort his big frame for eight hours in the 4- to-4 1/2-foot-high mine shafts, he enjoyed the work or more precisely, those he worked with. He relished the friendship formed with men who were down-to-earth, family-oriented and God-fearing. Separated from the world above, they had to rely on each other every day.

Leslie understood both the job's draw and its dangers. Her father, Thomas Foy, had been a coal miner since before she was born, and he and her husband now worked for the same outfit: Black Wolf Coal Co. Since March 10, they'd been working on the same crew.

Every day before leaving for the mine, Mayhugh would give his wife a goodbye kiss.

Thomas Foy, Mayhugh's 52-year-old father-in-law, had 29 years of experience in the mines. Foy lived near his native Berlin, where he had dropped out of high school. He served in the U.S. Army in Vietnam and worked laying brick before going into coal. He'd been a miner practically the entire time he'd been married to Denise.

The nine members of the crew converged at Quecreek Mine around 2:30 p.m.

In the trailer where they would shower at the end of their shift, they changed into their mining gear: Thermal underwear, flannel shirts, blue overalls, rubber
steel-toed boots, maybe a rain coat or rain pants or both as an extra layer against the dampness. The last things they pulled on were their knee pads and their miners' helmets, which had detachable lights that they could hook on their belts.

At about 2:45, the nine went outside and exchanged news with the departing day shift -- the usual chitchat about mine conditions and machinery.

One of the day-shift guys tossed in the usual see-you-later: "Have a good one, man."

Then, right at 3 p.m., the nine climbed onto the mantrip, a low battery-powered rail cart, for the half-hour ride to the coal seam they were working. It was 8,000 feet, or about 1 1/2 miles, from the mine's portal.

It didn't take the 4-foot-high mine shafts to make these guys feel close. After all, they sometimes saw more of each other than they did their own families. But inside the mine, they didn't work shoulder to shoulder. Sometimes they only passed each other as they worked different parts of the coal cuts.

On this day, Hileman and Unger worked together as one team, bolting the newly created mine roof to secure it so it wouldn't collapse. Fogle and Foy were the other bolting team. Pugh and Hall were car men, cleaning up debris. Mayhugh operated the scooper, a motorized vehicle with a bucket for picking up the mined coal and dumping it on a conveyor belt for transport out of the mine.

(Adapted from United States Mine Rescue Association.)

4. Being in groups of three or four choose any text from the above and read it for details.

5. Make a mini-presentation of the text you have read following the instructions given below. You may give a team-presentation if appropriate.

- Explain why you have chosen this text.
- Focus on the text-type and genre.
- Identify the peculiarities of the text genre, if there are any.
- Retell the text in brief.
- Describe your impressions on the text (Was it of any interest for you? Was it useful for you and why?).
- Give recommendations to the class whether the text is worth reading.
• Make a conclusion on the main elements of the genre of the text.
• Share the reading strategies you have used.

6. Read the instructions and warnings (1 – 12). Underline any new words and check their meaning in a dictionary. Then match the sentences with the signs (a – l) given below.

1. Risk of death here.
2. Be careful.
4. Beware of the material falling from conveyor belt.
5. Don’t smoke here.
6. Don't walk here.
7. This material is flammable.
8. This material is corrosive.
9. This material is explosive.
10. Wear ear defenders.
11. Wear goggles to protect your eyes.
12. Wear a hard hat.
13. _________________________________________________________
14. _________________________________________________________
15. _________________________________________________________
16. _________________________________________________________
17. _________________________________________________________
7. *Pair-work*. Work in pairs. Write warning instruction(s) for your area of study and/or work. Design and draw warning sign(s) for each of the instruction.

*Example: You must wear a miner’s helmet in a mine.*
8. Show your signs to another pair. Discover whether they can follow your instructions.

9. Complete the list of warnings and instructions with the instructions to the signs designed by your group.

Grammar Reference: Modals, Imperatives.

Follow-up: Check Your Reading Fluency

10. You will be given not more than 5 minutes to read the text given below and answer the following comprehension questions:

- What is coal?
- How is coal often called? Why?
- When was coal first discovered?
- How was coal formed?
- Why is coal considered the most important fuel?

While reading you can choose a suitable strategy from the list given below:

<table>
<thead>
<tr>
<th>Strategy A</th>
<th>Strategy B</th>
<th>Strategy C</th>
<th>Strategy D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Read the text.</td>
<td>1. Read the questions.</td>
<td>1. Skim the text.</td>
<td>1. Read the questions.</td>
</tr>
<tr>
<td>2. Read the questions.</td>
<td>2. Read the text carefully to find the answers.</td>
<td>2. Read the questions.</td>
<td>2. Skim the text for the answers.</td>
</tr>
<tr>
<td>3. Go back and skim the answers.</td>
<td>3. Go back and check the answers against the questions.</td>
<td>3. Scan the answers to the questions.</td>
<td></td>
</tr>
</tbody>
</table>
**COAL**

Mining today is generally much safer, and has become highly mechanized work. Small crews with sophisticated machinery have replaced the hordes of men valued for their muscle and stamina.

Coal was one of humanity's earliest sources of heat and light. The Chinese were known to have dug it more than 3,000 years ago.

But coal's origins go back much further.

Coal is the remnant of vegetation that grew 400 million years ago in large swamps that no longer exist. The fossil fuel is often called "buried sunshine" because the trees and plants that formed coal captured the sun’s energy through photosynthesis.

As layers of flora and trees accumulated, they formed a soggy dense material called peat. Over time, as the earth's crust shifted, deposits of sand, clay and other mineral matter buried the peat. Pressure squeezed water from the peat and the earth's heat forged chemical elements together that resulted in the black combustible mineral known as coal. It’s estimated that about 3 feet to 7 feet of compacted plant matter were required to form 1 foot of bituminous coal.

Carbon is what gives coal most of its energy, and it's the reason that coal was the country's most important fuel.

11. *Whole-group discussion.* Share your experience with your groupmates by answering the following questions:

- How did you read the text?
- What strategy did you use?
- Why have you chosen it?
- Do you think if you had chosen the other strategy would you be a success and read faster?
- Which strategy is the fastest? Why?

12. You may try all the strategies with different texts of the same size and choose the most appropriate strategy to be within time limits.
Unit 8 CHECK YOUR PROGRESS

Task 1. Look at notices (1-5). For each notice which sentence is correct? Circle only one letter (A, B or C).

1. **DO NOT OPERATE THIS MACHINE WITHOUT SUPERVISION**
   
   A You are not allowed to operate this machine at any time.
   B You must have someone with you who can use the machine.
   C You can only use this machine if you know how to operate it.

2. **PLEASE NOTE:**
   
   **THIS WEEK’S FACULTY MEETING WILL BE HELD AT 11. 45 A.M.**
   
   **INSTEAD OF 11. 15 A.M.**

   The Faculty meeting this week will take place at:
   
   A quarter to eleven
   B quarter past eleven
   C quarter to twelve

3. **24/11/2006**
   
   **Message for Natalie**
   
   **Reminder – Call Kate Shevchenko 4.50 p.m**

   Natalie should phone Kate
   
   A on 24 March.
   B at ten to five.
   C at ten past four.
4. Reproduction in whole or part of any photograph, text or illustration without written permission from the publisher is prohibited.

A The publisher must write and allow you to use photos, texts and drawings from the magazine.
B You must write to the publisher if you want to buy the photos, texts and drawings.
C You can copy any photos, text or drawings from the magazine without asking.

5. **IN THE EVENT OF FIRE ASSEMBLE IN THE YARD.**

A If there is an assembly problem, meet in the yard.
B If there is a fire in the yard, gather together here.
C If there is a fire, everyone should meet in the yard.

Task 2. Read the text that follows.

Do the following statements agree with the information given in the article?

Choose 'A' for 'Yes' if the statement agrees with the information,
'B' for 'No' if the statement contradicts information.
If there is not enough information to answer "Yes" or "No" choose
'C' - 'Not given'.

Circle the appropriate letters.

6. The eruption was caused by the boundary of two moving plates of the Earth.
7. There had been three major eruptions of Mount St. Helen.
8. Nothing was made to evacuate people from the region close to the mountain.
9. There was an earthquake in the region caused by the growth of the mountain.
10. Scientists were able to analyse the sequence of the events.
The Spectacular Eruption of Mountain St Helen

A The eruption in May 1980 of Mount St. Helens, Washington State, astounded the world with its violence. A gigantic explosion tore much of the volcano's summit to fragments; the energy released was equal to that of 500 of the nuclear bombs that destroyed Hiroshima in 1945.

B The event occurred along the boundary of two of the moving plates that make up the Earth's crust. They meet at the junction of the North American continent and the Pacific Ocean. One edge of the continental North American plate over-rides the oceanic Juan de Fuca micro-plate, producing the volcanic Cascade range that includes Mounts Baker, Rainier and Hood, and Lassen Peak as well as Mount St. Helens.

C Until Mount St. Helens began to stir, only Mount Baker and Lassen Peak had shown signs of life during the 20th century. According to geological evidence found by the United States Geological Survey, there had been two major eruptions of Mount St. Helens in the recent (geologically speaking) past: around 1900 B.C, and about A.D.1500. Since the arrival of Europeans in the region, it had experienced a single period of spasmodic activity, between 1831 and 1857. Then, for more than a century. Mount St. Helens lay dormant.

D By 1979, the Geological Survey, alerted by signs of renewed activity, had been monitoring the volcano for 18 months. It warned the local population against being deceived by the mountain's outward calm, and forecast that an eruption would take place before the end of the century. The inhabitants of the area did not have to wait that long. On March 27, 1980, a few clouds of smoke formed above the summit, and slight tremors were felt. On the 28th, larger and darker clouds, consisting of gas and ashes, emerged and climbed as high as 20,000 feet. In April a slight lull ensued, but the volcanologists remained pessimistic. Then, in early May, the northern flank of the mountain bulged, and the summit rose by 500 feet.

E Steps were taken to evacuate the population. Most - campers, hikers, timber-cutters - left the slopes of the mountain. Eighty-four-year-old Harry Truman, a holiday lodge owner who had lived there for more than 50 years, refused to be evacuated, in spite of official and private urging. Many members of the public, including an entire class of school children, wrote to him, begging him to leave. He never did.

F On May 18, at 8.32 in the morning, Mount St. Helens blew its top, literally. Suddenly, it was 1300 feet shorter than it had been before its growth had begun. Over half a cubic mile of rock had disintegrated. At the same moment, an earthquake with an intensity of 5 on the Richter scale was recorded. It triggered an avalanche of snow and ice, mixed with hot rock - the entire north face of the mountain had fallen away. A wave of scorching volcanic gas and rock fragments shot horizontally from the volcano's riven flank, at an inescapable 200 miles per hour. As the sliding ice and snow melted, it touched off devastating torrents of mud and debris, which destroyed all life in their path. Pulverised rock climbed as a dust cloud into the atmosphere. Finally, viscous lava, accompanied by burning clouds of ash and gas, welled out of the volcano's new crater, and from lesser vents and cracks in its flanks.

G Afterwards, scientists were able to analyse the sequence of events. First, magma - molten rock - at temperatures above 2000°F had surged into the volcano from the Earth's mantle. The build-up was accompanied by an accumulation of gas, which increased as the mass of magma grew. It was the pressure inside the mountain that made it swell. Next, the rise in gas pressure caused a violent decompression, which ejected the shattered summit like a cork from a shaken soda bottle. With the summit gone, the molten rock within was released in a jet of gas and fragmented magma, and lava welled from the crater.
The effects of the Mount St. Helens eruption were catastrophic. Study of atmospheric particles formed as a result of explosion showed that droplets of sulphuric acid, acting as a screen between the Sun and the Earth’s surface, caused a distinct drop in temperature. Almost all the trees of the surrounding forest were flattered. Ash and mud spread over 250 square miles of country. All the towns and settlements in the area were smothered in an even coating of ash. It has been calculated that the quantity of dust ejected by Mount St. Helen – a quarter of a cubic mile – was negligible in comparison with that thrown by the earlier eruptions.

Task 3. Complete the table below using the information from the text above.

<table>
<thead>
<tr>
<th>Item</th>
<th>Equivalent to</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example</strong>&lt;br&gt;The energy released by the explosion of Mount St. Helens</td>
<td><strong>Answer</strong>&lt;br&gt;<em>500 nuclear bombs</em></td>
</tr>
<tr>
<td>The area of land covered in mud or ash</td>
<td>12</td>
</tr>
<tr>
<td>The quantity of dust ejected</td>
<td>13</td>
</tr>
<tr>
<td>Magma molten rocks were at temperatures</td>
<td>14</td>
</tr>
<tr>
<td>The intensity of an earthquake was recorded on the Richter scale</td>
<td>15</td>
</tr>
</tbody>
</table>

Choose the appropriate letter A – D and underline the whole statement.
16. According to the text the eruption of Mount St. Helens and other volcanoes has influenced our climate by
   A  increasing the amount of rainfall.
   B  heating the atmosphere.
   C  cooling the air temperature.
   D  causing atmospheric storms.

17. By 1979 the volcano had been monitored
   A  for 18 years.
   B  for 18 days.
   C  for 18 weeks.
   D  for 18 months.

Task 4. Read the memo and catalogue list below.

Complete the order form on the next page.

Write a word or phrase (in CAPITAL LETTERS) or a number on lines 18 – 22.

Memorandum

To  Lucy Scrivener
From  Bill Hammer

Lucy,
Can you please order some extra stationery for the reps' conference next week? Have a look at the Pens and More catalogue - they seem to be the best. We need enough for 10 reps. I suggest you get some A4 notepads, ballpoint pens, and ring binder files - one for each of the reps. Can you please also order 6 black marker pens and 50 OHP transparencies for me?

Thanks.
## Pens and More

Catalogue

### Stationery supplies

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
<th>Unit value £</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 2367</td>
<td>A4 notepad - lined</td>
<td>2.75</td>
</tr>
<tr>
<td>ST 2589</td>
<td>A5 Memo pad</td>
<td>2.50</td>
</tr>
<tr>
<td>ST 0256</td>
<td>Ring binder file</td>
<td>2.25</td>
</tr>
<tr>
<td>ST0148</td>
<td>Plastic folders - pack of 50</td>
<td>3.50</td>
</tr>
<tr>
<td>ST 0524</td>
<td>Plastic document folder</td>
<td>2.60</td>
</tr>
<tr>
<td>ST5217</td>
<td>Roller ball pens - pack of 6 black</td>
<td>3.99</td>
</tr>
<tr>
<td>ST 5796</td>
<td>Ballpoint pens - pack of 10 blue</td>
<td>0.99</td>
</tr>
<tr>
<td>ST 5876</td>
<td>Board marker pens - pack of 6 black</td>
<td>3.25</td>
</tr>
<tr>
<td>ST 5899</td>
<td>Pencils-pack of 10 HB</td>
<td>0.36</td>
</tr>
<tr>
<td>ST1764</td>
<td>OHP transparencies - pack of 50</td>
<td>6.99</td>
</tr>
<tr>
<td>ST 1551</td>
<td>OHP pens - pack of 6</td>
<td>3.49</td>
</tr>
</tbody>
</table>

### Office Supplies Order Form

Please fill in the order code, item description, quantity and unit value ONLY. Total amounts and the Grand Total will be completed by the Accounts Department.

<table>
<thead>
<tr>
<th>Order code</th>
<th>Item description</th>
<th>Quantity</th>
<th>Unit value £</th>
<th>Total amount £</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 2367</td>
<td>(18)..........................</td>
<td>10</td>
<td>2.75</td>
<td></td>
</tr>
<tr>
<td>ST 5796</td>
<td>BALLPOINT PENS - PACK OF 10 BLUE</td>
<td>1</td>
<td>(19).........</td>
<td></td>
</tr>
<tr>
<td>(20) ........</td>
<td>RING BINDER FILE</td>
<td>10</td>
<td>2.25</td>
<td></td>
</tr>
<tr>
<td>ST 5876</td>
<td>BOARD MARKER PENS -PACK OF 6</td>
<td>(21) ....</td>
<td>3.25</td>
<td></td>
</tr>
<tr>
<td>ST 1764</td>
<td>(22) .... :...................... -PACK OF 50</td>
<td>1</td>
<td>6.99</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GRAND TOTAL</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Task 5. Read the article below. Choose the correct word to fill each gap from A, B, C on the next page. For each question (23-35), mark one letter (A, B, C). You may fill in the gaps with the appropriate word against the letter.
A new $10,000 award has been won by a professor who plans to spend her prize money on an inspirational nationwide tour by a team of elite women chemists.

The first winner of the Rosalind Franklin Award, which aims to promote women in science, is Professor Susan Gibson of King’s College, London, as announced yesterday.

The award commemorates Rosalind Franklin, whose work at King’s contributed to the discovery of DNA half a century ago, and rewards excellence in science, engineering and technology.

Professor Gibson plans to use the prize money to bring a group of leading women chemists around the world tour British universities careers to female undergraduates.

She will donate the remainder of the money to enable a young woman postgraduate at her department to buy much-needed chemicals to continue her research.

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<td>in</td>
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<td>35</td>
<td>A</td>
<td>for</td>
<td>B</td>
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</table>

Self-assessment
Task 6. Assess yourself using the keys given in Part II Self-study Resources.
Indicative Reading


Useful Links

1. African Mining Magazine
   http://www.mondotimes.com/2/topics/ 335/business/all/13186

2. Canadian Mining Journal
   http://www.canadianminingjournal.com/default.asp

3. Global Infomine
   http://www.infomine.com/publications/

4. Mining & Aggregate Industry Magazines & Publishings
   http://www.uee.com/links_mag.htm

5. Mining Magazines
   http://www.macandmurray.com/mining-magazines.html

6. Oregon Mining Magazine Gold Prospecting in Oregon

7. World Mining Equipment
   http://www.wme.com/

Module 3

Discussing

Professionally-oriented Topics
Unit 1 General Information on Mining

Focus on

- reading for main information
- reading for detail
- discussing ideas
- presenting information

By the end of the unit you will be able to:

- understand and state the main idea and details in authentic texts
- give and explain your points of view on the topics being discussed

Brainstorming

1. You are going to read the text about mining. Before reading come up with all the ideas about what mining is. You can use a mind-map to explore the ideas.
Mining refers to ore extraction. Broadly speaking, mining is the industrial process of removing a mineral-bearing substance from the place of its natural occurrence in the Earth's crust. The term "mining" includes the recovery of oil and gas from wells; metal, non-metallic minerals, coal, peat, oil shale and other hydrocarbons from the earth. In other words, the work done to extract mineral, or to prepare for its extraction is called mining.

The tendency in mining has been toward the increased use of mining machinery so that modern mines are characterized by tremendous capacities. This has contributed to: 1) improving working conditions and raising labour productivity; 2) the exploitation of lower-grade metal-bearing substances and; 3) the building of mines of great dimensions.

Mining can be done either as a surface operation (quarries, opencasts or open-pits) or it can be done by an underground method. The mode of occurrence of the sought-for metallic substance governs to a large degree the type of mining that is
practiced. If the rock containing the metallic substance is at a shallow site and is massive, it may be economically excavated by a pit or quarry like opening on the surface. If the metal-bearing mass is tabular, as a bed or vein, and goes to a great distance beneath the surface, then it will be worked by some method of underground mining.

Working or exploiting the deposit means the extraction of mineral. With this point in view a number of underground workings is driven in barren (waste) rock and in mineral. Mine workings vary in shape, dimensions, location and function.

Depending on their function mine workings are described as exploratory, if they are driven with a view to finding or proving mineral, and as productive if they are used for the immediate extraction of useful mineral. Productive mining can be divided into capital investment work, development work, and face or production work. Investment work aims at ensuring access to the deposit from the surface. Development work prepares for the face work, and mineral is extracted (or produced) in bulk.

The rock surfaces at the sides of workings are called the sides, or in coal, the ribs. The surface above the workings is the roof in coal mining while in metal mining it is called the back. The surface below is called the floor.

The factors such as function, direct access to the surface, driving in mineral or in barren rock can be used for classifying mine workings.

I. Underground workings:

a) Long or deep by comparison with their cross-section may be: 1) vertical (shaft, blind pit); 2) sloping (slopes, sloping drifts, inclines); 3) horizontal (drifts, levels, drives, gate roads, adits, crosscuts).

b) Large openings having cross dimensions comparable with their length.

c) Production faces, whose dimensions depend on the thickness of the deposit being worked, and on the method of mining it.

II. Opencasts.

(From Баракова М.Я. Английский язык для горных инженеров)
3. *Pair-work.* Exchange your ideas with a partner.

**Reading for specifics and Note-making**

4. Read the text again and make the signs on the margins:
   
   “^” if you find the fact that coincides with your background knowledge
   
   “-“ if the fact contradicts your ideas
   
   “+” if you find some new information, unknown to you
   
   “?” if you want to know more about a fact or a phenomenon

**Discussion and Presentation**

5. *Group-work.* In small groups, analyse which facts coincide with your background knowledge, which contradict, and which remain unknown. Fill in the appropriate columns of the worksheet.

**WORKSHEET 3.1**

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</tbody>
</table>
6. Make a group presentation (or choose a person who will present the ideas) using your group table about the facts from the text.

Grammar Reference:
Present Simple.
Present Perfect Simple.
Passive Voice.

Skim reading
7. Read the following extract and give the title to it. Explain your point of view on its choice. Use phrases for stating and justifying opinions:

- I (personally) think …
- In my opinion …
- I believe that …
- I see what you mean, but …
- Sure, but …
- Yes, but on the other hand …

The mining of narrow vein deposits has received considerable attention over the past years as both mines and equipment manufacturers seek solutions to the problems that these deposits present. They are generally less than 3 m wide, discordant and of variable dip and typically display a complex structure. Mines in Australia, Canada, South America and the UK have tackled the problem using shrinkage, cut and fill and open stoping methods.

The viability of narrow vein mining depends on a detailed geological understanding of the deposit and close collaboration between the geologist and engineer at both the feasibility and production stages.
The mining industry in South Africa has long been recognised as being in the forefront of deep mining, developing access and mining techniques suited to the sometimes extreme conditions encountered. In recognition of the fact that there remains a considerable resource at depths between 3,000 and 5,000 m (estimated at 40,000 t of gold - equivalent to what has been mined to date from the Witwatersrand basin) the DeepMine programme was launched to determine what will be needed to mine at these depths.

The programme was originally conceived to create a technological and human resources platform that will make it possible to mine gold safely and profitably at depths of 3,000 to 5,000 m. The programme has four key objectives:

• To acquire knowledge of, and develop, appropriate technology;
• To stimulate education and training;
• To establish a culture of training;
• To encourage rapid technology transfer and implementation.

(From the Mining Magazine)

Discussion

8. Do you want to make any changes in your mind-map?

9. Have a discussion about the changes you have made in your mini-groups/in class.
Unit 2 Surface Mining

Focus on

- reading for specific information
- taking notes
- listing
- summarising main points
- drawing conclusions

By the end of the unit you will be able to:

- distinguish and summarise information from different texts
- report about the main information obtained in texts

Discussion

1. You are going to read the article about surface mining. Before you read, discuss the following:

   - the role of surface mining in the mineral supply;
   - the equipment used in surface mining;
   - the major achievements in modern mining in Ukraine, particularly, in surface mining.

Scan reading

2. Read the first part of the article and check your answers.

   The pressure to cut mining costs has driven many producers to maximise the overall scale of operations and to use the latest and largest available and applicable excavating loading and haulage equipment. However, the weak mining product markets of the past year have mitigated against this by driving down the investment
capital available for new equipment. Nevertheless, manufacturers continue to develop better and bigger machines with, for example, the 3001 truck capacity barrier well and truly broken last year.

Manufacturers continue to take an ever increasing role on the mine itself, providing a variety of services in addition to supplying spare parts. They now offer to take on the maintenance tasks, to varying levels ranging from only the most extensive maintenance work to completely replacing a mine's own team of maintenance engineers. Such contracts leave the mining company to focus on its core business; that of mining.

Surface mining plays the dominant role in world mineral supply, and as these operations get ever larger, their number decreases. According to market researcher The Parker Bay Company, "Worldwide there are fewer than 1,000 surface operations that combined account for 1,500 Mt of coal, more than 80% of the world's copper production, two-thirds of its iron ore, one-third of all gold output and a large portion of the world's bauxite, phosphate rock, lead, zinc, oil sands and more than 30 other minerals."

Parker Bay conducted a census of large excavating, loading and haulage equipment. It reports that, "In total, nearly 14,000 machines, valued at more than $30 billion, are operating at just 760 locations in 63 countries." Parker Bay breaks those machines down as 9,969 mining trucks (payloads of 90 t and above) valued at $11,282 million, 450 10 m³ and above bucket capacity draglines ($7,812 million), 1,335 electric shovels with bucket capacities from 10 to 50 m³ ($6,768 million), 956 hydraulic excavators with operating weights of 140 t and greater ($3,622 million) and 1,032 wheel loaders with net power ratings of 600 kW and above ($911 million).

(From the Mining Magazine)
Discussion

3. Whole-group work. What new information about surface mining did you get from the text? Share it with your groupmates.

Reading and Note-taking

4. Read the second part of the article about the main developments in trucks and take notes using Worksheet 3.2. There is an example at the beginning.

WORKSHEET 3.2

<table>
<thead>
<tr>
<th>Name of the company</th>
<th>Innovations</th>
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<tbody>
<tr>
<td>Caterpillar</td>
<td>Engine with electronic unit injection</td>
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</table>

Most of the major developments in trucks were at the top of the payload range, trucks carrying in excess of 300 t. Komatsu Mining Systems' (KMS) 930E was the first truck since the short-lived Titan, 20 years earlier, to break the 300 s. ton (272 t) ceiling. By last year it had established a significant lead at the top range of mine truck hauling capacity. At the end of March, the 100th 930E was commemorated at Thunder Basin Coal's (Arch Coal) Black Thunder mine in the Powder River Basin of Wyoming. The first 930E fleets were commissioned at the Phelps Dodge mines of Chino in New Mexico and Morenci in Arizona.
Fuel and tyres represent the highest operating costs for mine haulers. Excessive tyre wear is no longer the insurmountable obstacle that plagued the first big truck during the 1970s. New tyre technology has produced lower profile tyres with new compounds that handle the big payloads with remarkable durability, even when compared to smaller trucks. At its launch, the 930E payload was rated at 300 s. ton but, soon after, the new 50/90/R57 tyres boosted that to 320 s. ton (290 t). Fuel operating costs have been less an issue with the 930E. New injection technology is showing terrific efficiency potential, KMS reports.

Although not be commercially available until 2001, Caterpillar has put the 797 mechanical drive truck into the field. Its standard capacity is 220 m³ (nominally 326 t), with a design operating weight of some 558 t, fitted with 55/80R63 tyres. The 2,535 kW engine, Caterpillar's 3524B LS, features electronic unit injection, an ADEM II electronic controller and a 3500 series fuel system with after-cooling and four single-stage turbochargers.

Meanwhile, the president of Terex Earthmoving, Ernie Verebelyi, recently confirmed that a plus-300 t truck from Unit Rig, the MT 5500, will be available by the end of the year. Unit Rig achieved the biggest single truck fleet order, selling 160 Mark 30B series units to Coal India.

Liebherr Mining Equipment, back in the days when it was Wiseda, was the first manufacturer to develop a 218 t truck. With the development of the T282, a 327 t capacity machine that features AC drive, Liebherr once again leapfrogged to the head of the truck field. Liebherr says it will provide users with fuel savings and reduced maintenance requirements, and increase productivity. The truck is equipped with a 2,052 kW Detroit Diesel engine and Siemens ac drive system. The ac control system also provides an additional margin of braking, allowing total dynamic retarding capacity up to 4,500 kW and down to 0.8 km/h, at which point the service breaks are activated to bring the track to a final stop.

Caterpillar significantly upgraded its three top trucks. The new 785C, carrying a 136 t payload, and the 789C, carrying as much as 177 t, replaced the B-Series models.
The 218 t capacity 793C was the first of the C-Series mining trucks when introduced in 1996. It has been further upgraded, but retains the C-Series designation.

Hitachi Construction Machinery now manufactures trucks - with payloads from 29 to 254 t (the R280) - in Guelph Canada and Gliwice, Poland. Its new C series offer up to 20% more productivity through higher working speeds, faster uphill speeds, shorter stopping distances and improved downhill retarding.

New from Belaz was the all new 55 t capacity 7555-B offered with the Cummins KTTA-19C engine rated at 516 kW. Additional equipment has been added to the specification of the 80 t 75491/75492 truck. Belaz believes this is the only truck available today to offer fully independent rear suspension. In the larger range, the 200 t 75303 has gone into full production following the completion of a successful mine evaluation.

Articulated dump trucks (ADTs) continue to attract interest from the mines, particularly in Southeast Asia where their ability to haul through poor underfoot conditions makes them very useful during monsoon rains. Moxy Trucks launched its new MT36 and MT40 B models and the whole Moxy concept for ADTs. Bell Equipment launched its new 'C' series, representing a 'significantly upgraded and improved range of trucks which has the capability to excel in the productivity race and, more importantly, cost less to own and operate than any competitive make', according to group managing director, Gary Bell.

Volvo's ADTs were upgraded for increased power. Furthermore, the service brake pedal with hydraulic retarder function, previously only available on the A40C, is now fitted as standard on the Volvo A25C, A30C and A35C series of articulated haulers. The new brake pedal ensures easier operation and less wear on the service brakes. It allows the operator to adjust the retarding effect from the retarder according to local conditions. Improved stability during loading and dumping is achieved with a new service brake facility available as optional equipment. The new line from Terex Arctic, with a new colour scheme, features what the company describes as a "dramatic new pricing strategy .... passing on the significant benefits of substantial investment and technology programmes. Benefits in manufacturing and assembly
techniques have generated significant cost savings that are being passed directly to the customer base."

Used in trucks and other earthmovers, L&M Radiator's new Mesabi V-Pack cooling package saves space because the engine radiator and oil cooler share a common framework and fan. It offers all the field-changeable features of Mesabi removable-tube neat exchangers and is designed for applications where low profiles are desirable.

(From the *Mining Magazine*)

5. Whole group-work. Discuss how different companies upgraded their equipment. Use the necessary functional phrases from *Part II Self-study Resources* (Functional Phrases for Discussions). Put the information into the following worksheet.

**Reading for detail**

6. Read the following extract which includes the information about conveyor belts and their components.

7. Pair-work. Make a list of conveyor performances. Fill in the worksheet given after the text. The first one has been done for you.

   Globalisation is currently the trend and this is certainly what Continental Conveyor, today's largest supplier in belt conveying, has been doing recently taking on such companies as Meco, FSW and Huwood.

   Specific conveyor components have been developed recently which greatly enhance overall conveyor performance capabilities. These include large, very powerful drives and small drives which are quick and easy to align, in addition to being extremely portable; constant tension winch technology which is precise and quick;
belt storage units which are trouble-free; and high angle conveying which is simple and reliable, even in high-volume applications.

Among the technologies Continental has acquired recently are conveyor belts that can turn at 90° angles, systems which advance and retreat while the conveyor is in full operation and specific, noise-limiting Stealth Roller components.

Partnerships with manufacturers are increasingly popular. For example, Martin Engineering signed two major long-term deals. One of those, in Germany, is a three-year contract with Rheinbraun, the world's largest lignite mining company, to supply belt cleaning systems, including blades, mainframes and tensioners for Rheinbraun's four surface mines. Managing director Goran Ottosson commented: "Through this contract, Rheinbraun hopes to improve cleaner performance and system standardisation, while reducing operating costs and the overall number of suppliers. Martin Engineering will provide a full range of cleaning systems to suit even the widest, fastest belts serving Rheinbraun's high-volume bucket-wheel excavators."

(From the Mining Magazine)

WORKSHEET 3.3

<table>
<thead>
<tr>
<th>Conveyor Performances</th>
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<tr>
<td>1. Powerful drives</td>
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</table>
Discussion and Presentation

8. **Group-work.** In small groups, discuss the main developments in surface mining.

9. Present your findings to the whole group. Use the necessary functional phrases in *Part II Self-study Resources* (Functional Phrases for Discussions).

![Grammar Reference:](image)

Present, Past and Future Simple.

Irregular verbs (*e.g. rise-rose-risen; fall-fell-fallen*).

Adverbs.
Unit 3 Underground Drilling

Focus on

• ordering
• comparing
• matching
• exchanging information
• writing a summary

By the end of the unit you will:

• be aware of a summary structure
• be aware of functional phrases for making a summary
• be able to use functional phrases typical for writing a summary

Predicting

1. When you present the article you have read what kind of information do you give? Make a prediction.

Making a summary

2. Read the following elements of the summary structure you need to use when presenting the information about the article, compare with your ideas and arrange them in a logical order.

   ___ The conclusion of the article.
   ___ The main idea of the article.
   ___ The author of the article; where and when the article was published.
   ___ Your opinion of the article.
   ___ The contents of the article (facts, names, figures).
3. The logical order of the summary elements is given in the table below. Compare them with your list.

4. *Pair-work.* Match the summary elements with their corresponding functional phrases given in Table 3.1.

*Table 3.1*  
**Structure of a Summary**

<table>
<thead>
<tr>
<th>Elements of the summary</th>
<th>Functional phrases</th>
</tr>
</thead>
</table>
| 1. The title of the article | A To sum it up ...  
In conclusion the author says ...  
The author concludes that ...  
The author makes it possible to conclude that ...  
The author draws/comes to/reaches a conclusion ... |
| 2. The author of the article; where and when the article was published | B The main idea of the article is ...  
The article is about ... (is devoted to ..., deals with ..., touches upon ...)  
The aim of the article is to give the reader some information on ... (is to provide the reader with some data on ...)  
The article discusses ... (expresses the view that ...) |
| 3. The main idea of the article | C The author starts by telling the readers about ...  
The author writes (states, stresses, thinks, points out that ...)  
According to the text ...  
Further the author reports/says that ... |
| 4. The contents of the article (facts, names) | D I found/find the article interesting (important, dull, of no value, too hard to understand) |
| 5. The conclusion of the article | E The author of the article is ...  
The article is written by ...  
It is published in ... |
| 6. Your opinion of the article | F The article under review is entitled as ...  
The article is headlined ...  
The headline of the article is ...  
The title of the article I have read is ... |
Reading for discussion

5. Whole-group work. Before reading the article about underground drilling, exchange with your groupmates the information about this issue you have obtained from different texts.

6. Read the extract from the article “Underground drilling and loading” from the Mining Magazine.

Underground drilling and loading

John Chadwick examines better blastholes, less overbreak, automation and larger machines

In development drilling, faster drilling of rounds, and deeper and more accurate holes have become possible through boom positioning systems and parallel drilling facilities. Hole depths and patterns are controlled by onboard computer systems. However, automation is largely still only found in production drilling.

According to Tanguy De Brasses of Montabert, which works together with Mining Technologies International and Andereen Mekaniske Verksted producing development drilling machines: "The improvement of energy transmission in third generation hydraulic drifters and incorporation of highly sensitive yet rugged controls is providing benefits for mine operators by reducing running costs." He says that putting together the advantages of progressive shock wave transmission with proper drill management mines can now:

- Increase penetration by up to 50% compared with second generation drifters (without unduly increasing working pressures);
- Increase the life (in metres) of tooling by 200-400% on shank adapters and 30-50% on couplings;
• Minimise deviation, and drill deeper holes -to 400 m; and
• Reduce drilling costs by two-and-a-half to four times if tooling costs are included.

Overbreak remains a problem in development. Atlas Copco has put forward the main factors in reducing overbreak. Firstly, "close monitoring of the face is a must in order to register undue overbreak and to take counter measures - and a small bonus to the people involved can lead to great results. Geological conditions can have a great effect on hole direction. The drill string has a tendency to deviate perpendicular to the foliation in anisotropic rock like phyllite, schist and gneiss. Blasting is extremely important, and employing the smooth blasting technique with electronic detonators in the periphery holes can contribute greatly to a smooth contour. Tunnel size affects drilling accuracy. When booms and feeds are extended to the full, they are not so rigid and deflections can occur. Exact computerised compensation is not easy to achieve - and the further out the booms are, the greater the collaring and orientation errors can be."

Furthermore, "alignment of the feed is critical at the start of drilling and a face which is not orientated perpendicular to the drill rod may cause bending and an inaccurate starting point. Low feed force and reduced impact at the start saves drill tool wear and, after that, feed force should be just enough to maintain tight joints without bending the rod and risking deviation. Fast and accurate drilling requires dedication, experience and reliable, state-of-the-art drill rigs.

7. Group-work. In small groups, discuss the article using the structure and functional phrases given above.

Writing
8. Group-work. Working in new groups, write a short summary of the article you have read using the structure and functional phrases given in Table 3.1.
Gold Mining in Russia

The current situation and prospects for development

Russia's 639 gold mining enterprises produced 154.5 t of gold, a new record for gold mining in the country. The number of producers has risen, mainly at the expense of smaller operations with workforces up to 100. Today, 80% of the output comes from enterprises with an annual capacity of 1-5 t of gold. There is sufficient potential to encourage further increases in precious metals output.

Despite the decline in proven gold ore reserves, Russia still maintains second position in the world. Over the last decade, the structure of the reserve base in the
Russian Federation has not undergone any substantial changes with vein deposits accounting for 54% and placer and complex deposits for 18% and 28% respectively.

The Decree of President of the Russian Federation No. 742 (June 21, 2001) - 'On the Order of Exporting from and importing into the Russian Federation of Precious Metals and Stones' - has perceptibly extended the producers' potential to present their commodities on the foreign market. In particular, they are now free to export in their own right, with no quotas imposed or licenses required, refined gold and silver, as well as finished items of precious metals (including those of platinum and metals of molybdenum/platinum group) and stones (gems).

Russia is currently witnessing a gradual shift from the development of predominantly placer gold occurrences to more active mining of vein deposits. As a result, the gold mining industry, of which more than 70% is located in the far north regions and areas with similarly hostile climates, is gradually dropping its seasonal aspect.

Over the last decade, ten gold recovery plants have been put into operation in Russia, with a total design capacity of 9 Mt/y. The majority of gold concentrators process high-grade ores assaying 10-33 g/t Au, and the rest treat run-of-mine ores assaying 4-6 g/t Au.

Specialists from the Irgiredmet Institute were the first in the world to test and apply in practice pulsating columns in a sorbtion gold-leaching cycle following the resin-in-pulp technology. Experience at Olimpiadinskaya ZIF (Polyus Gold Prospecting Team) has shown that the use of such columns enables the operators to use the production floor most economically, accompanied by a considerable saving of power and a substantial reduction of the sorbent consumption.

(From the Mining Magazine)
Skim reading

2. Read the article and complete the following sentences:

   a) The title of the article I have read is ... .
   b) The article is written by ....
   c) The main idea of the article is ... .
   d) According to the text ... .
   e) The author makes the conclusion that ... .
   f) I find the article ... .

Grammar Reference:
Present Perfect Active.
Passive Voice.

Discussion and Presentation

3. Group-work. Discuss the information about the article using functional phrases from Unit 3.

4. Working in the same groups, make group presentations in class about gold mining. Use the necessary functional phrases for discussions (asking for repetition and clarification, agreeing, disagreeing, exemplifying, etc.).
Unit 5  World Coal Production

Focus on

- reading for specific information
- note-taking
- ordering and comparing
- summarising
- listening and responding

By the end of the unit you will be able to:

- understand main points and details in authentic texts
- explain points of view in discussions
- produce a monologue on the topic of study

Discussion

1. Discuss with your groupmates what you know about coal production and consumption in the world:

   the role of coal in the global economic development;
   the consumption of coal in the near future;
   the production of coal in the world.

Scan reading

2. Read the introduction and “Global production” part from the article headlined ‘World Coal Production’, which gives the information about coal production in 2003-2004, and answer the questions.

   1. What role does coal play in the global economic development?
   2. Will the consumption of coal grow in the near future? How do you know?
3. What was average coal production in the world in 2004?
4. Do you know what the current global coal production is?

The production of coal plays an integral role in the global economic development of many countries, as it is the most widely used energy source in electricity generation and an essential input to most steel production. Coal reserves are plentiful and widely distributed about the globe, providing an accessible and affordable energy source. All studies, show that coal use is set to increase over the next 20 years as the world meets its growing energy needs. In conjunction with this fast-growing demand for energy there has been unprecedented growth in demand for raw materials to supply the Chinese steel industry - in which production has increased by over 20% in the interval 2003/04.

Consequently, coal exports from China have been curtailed and imports have increased, while overall consumption of coal has grown by over 14%. To a large extent driven by the requirements of the Asia-Pacific economies, and in particular of China, international markets have enjoyed increased demand for all coal qualities and a continuation of the high prices experienced since mid-2003.

**GLOBAL PRODUCTION**

World coal production has shown continuing growth, with hard-coal production standing at 4,600 Mt in 2004 (2003:4,300 Mt), to which can be added annual production of some 900 Mt of brown coal/lignite. China, the largest national coal producer, showed an increase in production in 2004 of over 17%, and each of the next five largest national producers (US, India, Australia, Russia and South Africa) showed increases of between 3-8%.

The world's two largest private-sector coal producers are Peabody Energy Corp (2004: 206 Mt) and RioTinto (157.4 Mt), followed by BHP Billiton (119 Mtj, Arch Coal Inc (112 Mt), Anglo American pic (109 Mt), Siberian Coal Energy Co (76 Mt) and Xstrata pic (60 Mt). The largest exporters are Xstrata, BHPB, Anglo American and Indonesia's PT Bumi Resources Tbk.
Total world trade in hard coal in 2004 is estimated at 755 Mt (2003:670 Mt), of which seaborne trade was 685 Mt (2003:639 Mt). The world market for traded thermal coal in 2004 is estimated to have been 507 Mt, up some 3% from the previous year.

International trade in thermal coal is dominated by the demands of the Asia-Pacific region, in which Japan, Taiwan and South Korea alone imported 206 Mt of thermal coal. Demand for coking coal continued to increase in 2004, and the world market is estimated at 180Mt.

(From the Coal Magazine)

Reading and Note-taking

3. Group-work. Choose one country and read the appropriate text.
4. Summarise the information about world coal production and consumption in the Worksheet 3.4.

WORKSHEET 3.4

<table>
<thead>
<tr>
<th>Country</th>
<th>Production</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Rank the countries in terms of their coal production and consumption, and compare the data.
CHINA

China's growth surge can be considered to be largely fuelled by coal. The rate of growth of GDP in 2004 was 9.5%. The country is currently dependent on coal for over 68% of its total installed power capacity, and projections through to 2020 suggest that by then this will have reduced only to some 59% through the introduction of alternative energy sources. The country is the world's largest coal producer and coal consumer.

The preliminary figure for national raw-coal production in 2004 is 1,956 Mt, which would be an extraordinary year-on-year production increase of over 15%. National coal consumption is estimated to have increased by a similar factor around 1,8701.

Without greatly increased investment in, and construction of, transport infrastructure, the effectiveness of planned generation capacity increases based on coal will be compromised.

According to the Coal Industry Association, China's coal consumption in 2005 is expected to grow by 6% only half of the rate of growth in 2004, but this represents some 120 Mt more demand against a predicted increase in production of only an additional 100 Mt over 2004. The shortfall will need to be met from imports.

In order to guarantee domestic supplies and eliminate power shortages, the government is promoting the formation of up to ten giant state coal companies, controlling 60% of national production. Through the merger of smaller companies, the aim is to create companies producing more than 50 Mt/y, with a number producing in excess of 100 Mt/y. In parallel, the objective is also to try to reduce the number of small and inefficient coal mines. This policy objective remains a challenge, and the structure of the industry continues to evolve. During 2004, a new large-scale mining group, Heilongjian Long Mei Mining Group, was formed by the merger of four state-owned companies, and now comprises 16 underground mines, six coal preparation plants and four power stations. The potential production capacity of around 48 Mt/y now places this group among the top five coal production companies in China. Shenua Group
Corp Ltd is the largest producer, and is reported to have produced approximately 101 Mt of coal in 2004.

**INDIA**

According to the *IEA World Energy Outlook* for 2004, coal is sure to remain the dominant feedstock in India's energy mix through to 2030, with demand projected to grow from 391 Mt in 2002 to 758 Mt in 2030. India is the world's third-largest coal producer, and is largely self-sufficient. However, the projected scale of its growth in demand places a major question mark over its ability to expand coal production in line with demand, and significant growth in imports is foreseeable in the near future. The economy continues to surge ahead, with growth of 8.5% in 2004 (2003:8.2%) and predictions of 7% growth for 2005.

In the 12 months to October 2004, hard-coal production was 369.1 Mt, an increase of some 7.5% of the equivalent period in the previous year. Lignite production is estimated at approximately 28 Mt, up some 17%. Nevertheless, despite the rate of increase in production, which has been consistent year-on-year at nearly 5% since 2001, India is already facing serious coal shortages in the power, cement and steel sectors, only partially alleviated by increasing imports.

Coal supplies some two-thirds of India's primary energy requirements and approximately 75% of power-generation capacity. At the end of 2004 and in early 2005, the country was suffering from power shortages. In April 2005, as many as 16 power stations had coal stocks sufficient for less than seven days.

The supply shortfall in the fiscal year 2004/05 amounted to some 27 Mt and this is expected to widen to 42 Mt for the 2006/07 period. Crisis meetings have reviewed the potential for increased production from the state-owned mines, and state electricity boards now have the freedom to import thermal coal from international sources.

Hard-coal production is dominated by state-owned Coal India Ltd (CIL), the umbrella organisation for eight coal-producing subsidiaries. Together the CIL companies produce 86% of national hard-coal production.
AUSTRALIA

Australia maintains its position as arguably the third-largest coal producer in the world. In 2004, it produced 365.3 Mt, comprising 298 Mt of saleable hard coal (375.2 Mt run-of-mine, just ahead of India) and 67.3 Mt of lignite.

Australia is indisputably the largest coal-exporting country, and in 2004 it despatched 223.7 Mt. Coal exports, by value, represented over 11% of the value of total national export merchandise. Coking coal is the largest-value single export commodity. The increase in value is largely related to significant increases in sales prices in the early part of 2004. In 2004, for example, BHP Billiton achieved an average 28% price increase for metallurgical coals, and Rio Tinto received a 60% increase in prices for seaborne thermal coal.

Coal production is dominated by Queensland (171.8 Mt saleable in 2004) and New South Wales (115.2 Mt). In Victoria, 67.3 Mt of brown coal was mined in the Latrobe Valley, and virtually all of this was consumed for power generation.

Total export sales from Queensland in the fiscal year 2003/04 were a record 135 Mt, of which 67% (90.2 Mt) was coking coal and the balance (44.8 Mt) thermal coal. Export sales from NSW were 83.4 Mt, of which some 26% (about 21.5 Mt) was coking coal, and 61.9 Mt was thermal coal. A major concern throughout 2004 was the overloaded capacity and infrastructure at virtually all main export-coal terminals, which placed a constraint on production targets.

Hard-coal production is dominated by the 'big four' companies, which now manage some 75% of hard-coal production in Australia. The directly attributable production of these companies comprises over 50% of the national total hard coal produced: BHP Billiton (14.8%), Xstrata (13.7%), Rio Tinto (13%) and Anglo American (8.6%).

The principal interest of these major players is the export market. Domestic consumption of hard coal, at around 74 Mt in 2004, is largely driven by the power-generation market. Nationally this market is around 80% coal-fired, although this includes the plants in Victoria fired by brown coal.
BHP Billiton produced 35.4 Mt of metallurgical coal and 8.7 Mt of thermal coal from its Australian operations during 2004, with most of the output coming from the Bowen Basin of Queensland.

Xstrata is now Australia's dominant exporter of thermal coal and a significant producer of coking coal. Company-controlled production from Australia was around 55 Mt, of which attributable production in 2004 was 35.6 Mt of thermal coal and 5.2 Mt was coking coal.

RioTinto's coal interests are managed through Rio Tinto Coal Australia (RTCA). The total production of coal under RTCA management in 2004 was 56.7 Mt, of which attributable production was 39.7 Mt. The Queensland interests include Blair Athol, Australia's largest exporting mine, with thermal-coal shipments amounting to 12.2 Mt In NSW, all group assets are in the Hunter Valley, and production, all of which is from surface mining, comprises thermal coal and some semi-soft coking coal.

Anglo American reported attributable saleable Australian coal production of 25.6 Mt in 2004, of which 17.4 Mt was thermal coal and 8.2 Mt metallurgical coal. New developments in Queensland include the integration of the Moura-Theodore-Dawson complex as a JV with Mitsui & Co Ltd.

SOUTH AFRICA

Coal production showed a significant increase to 253.5 Mt (2003:238.7 Mt), although exports fell to 67.8 Mt (2003:71.5 Mt). Reasons for the lower exports have been attributed primarily to inadequate rail capacity and handling by the state rail operator Spoomet, plus rail tariff increases above the domestic rate of inflation and high sea-freight charges.

The greater part of all export coal passes through Richards Bay Coal Terminal (RBCT), which suffered a 3.5% decline in throughput to 65.9 Mt (2003:683 Mt).

Export-coal capacity handled through RBCT is, in general, proportionally distributed in accordance with the equity holding of its three major shareholder, Anglo American, Ingwe (a BHP Billiton subsidiary) and Xstrata. The Anglo American group is now the
largest coal producer in South Africa. In 2004 Anglo Coal's attributable saleable production was 54.5 Mt and this excludes production by Kumba Resources Ltd in which Anglo American has a 66.6% holding. Sales to Eskom, the power utility, totalled 33.7 Mt, and there was record output at the Kriel (11.1 Mt) and New Vaal (17.3 Mt) collieries.

Kumba Resources produced 19.4 Mt in 2004 from three mining units. Sales included 14 Mt to Eskom and 2.4 Mt of metallurgical coal for use in domestic industry.

Ingwe reported attributable production in year to June 30, 2004 as 54.3 Mt, with sales of 54.2 Mt, including 21 Mt of thermal coal for export. Ingwe operates six collieries, of which three are wholly owned and three, the Middleburg, Douglas and Rietspruit mines, are jointly owned with Xstrata.

The largest operation managed by the company is the Douglas/Middleburg complex (Ingwe 84% Xstrata 16%) which as a unit, with underground and surface mine production together, produced 23.9 Mt.

Eyesizwe Coal (Pty) Ltd is the largest black-owned, controlled and operated coal-mining company in South Africa, although Anglo American holds an 11% equity stake in this company which it helped to create. Eyesizwe is now the fourth-largest coal producer in the country, with a production base of some 25 Mt/y.

Sasol Ltd subsidiary Sasol Mining supplies coal to Sasol Synfuels at Secunda and to Sasol Infrachemat Sasolburg. The mining operations produced 51.1 Mt in 2004. Xstrata continues to consolidate its position in South Africa since its emergence as a major coal operator in 2002, and attributable saleable production in 2004 was 19.2 Mt.

**RUSSIA**

According to Russian Energy Ministry sources, Russia's coal output rose in 2004 to 283.1 Mt (2003 to 274.7 Mt); the total includes hard coal and lignite. Approximately 66% of all coal production was from surface mining.

Coal exports rose sharply in 2004, to 72 Mt (2003: 57.8 Mt), and included some 12 Mt of coking coal (2003: 10.3 Mt). Coal imports, almost exclusively from
Kazakhstan, are around 20 Mt/y and go mainly to the South Urals region for power generation and metallurgical use. Consumption fell by 5.5% to 210.8 Mt, largely owing to a reduction in mined lignite tonnage. Heavier rainfall than in the previous year in eastern Siberia meant that hydropower schemes were the preferred generation source, and lignite-fuelled power generation was cut back. Furthermore, the share of coal-fired power generation has fallen to 19% of total electricity produced, largely at the expense of gas, which in 2004 represented 43.8% of the national total.

The Russian coal industry is widely dispersed geographically, and at the end of 2004 there were some 220 coal enterprises, including 96 underground mines and 124 surface mines. The majority of economic reserves of hard coal are found in two coalfields: the Pechora Basin in the far northeast of European Russia and the Kuznetsk Basin (Kuzbass) in western Siberia. Over 50% of output comes from the Kemerovo region, which includes the Kuzbass.

Virtually all the coal companies selling into diverse or export markets recognise a potential commercial risk in the forthcoming privatisation of the Russian railways. Currently the Russian Government sets rail tariffs, but privatisation and liberalisation of the pricing structure may adversely affect rail transport costs. Also, rolling stock is in a poor state of repair, and lack of investment will ultimately cause disruption of transport routes.

The thermal-coal sector is dominated by Siberian Coal Energy (Suek) and Kuzbassrazrezugol, and metallurgical coal production is dominated by the industrial conglomerates, OAO Severstal and Evraz Group SA, and the coal producers, OAO Sibuglemet and OAO Yakutugol.

Suek sold 75.6 Mt in 2004, and its focus is primarily on the domestic thermal-coal market where sales reached 60.9 Mt, or approximately 29% of the national market. Key assets include 12 underground and four surface mines for bituminous coal in the Kemerovo region, and three major surface mines in the sub-bituminous and lignite district of the Kansk-Achinsk Basin.

Kuzbasslazrezugol (KRU) is the largest coal export company and is now 100%-owned by Severstal and its affiliates. KRU produced 41.3 Mt in 2004, all by surface
mining, from 13 open-pits in Kemerovo. The saleable products are thermal and metallurgical coal, the latter totalling 5.26 Mt in 2004; in the same period the company exported some 17 Mt.

Severstal owns or controls other coal interests in the Kuzbass and in the Vorkuta region in the Pechora Basin, and is estimated to control an annual coal production of around 58 Mt including 17 Mt of coking coal.

Two other major producers in the Kuzbass are Yuzhkuzbassugol (16.8 Mt of saleable coal in 2004 from 15 mines), and Radspadskaya (9.7 Mt from a single underground mine). Both fall within the control of Evraz, whose coal production in 2004 was about 26.8 Mt, including some 16 Mt of coking coal.

Grammar Reference:
Present, Past and Future Simple.
Present Perfect.
Irregular verbs.
Adverbs.
Comparison of Adjectives: comparative and superlative forms.
Numerals.

Round-table discussion
6. Exchange the summaries with the other groups. Be ready to ask questions for clarification when necessary. Use appropriate functional phrases for discussions.
Unit 6 Holding a meeting

Focus on
- discussing successful and unsuccessful meetings
- talking on purposes of a meeting
- starting a meeting
- listening, responding and turn-taking in a meeting

By the end of the unit you will:
- be aware of functions and corresponding phrases used in a meeting
- understand the purposes of a meeting
- be aware of what makes a successful meeting
- be will be able to start a meeting and summarise main points
- be able to respond appropriately

Predicting
1. Pair-work. Read the first part of the quotation by Mike Moore, Sydney Morning Herald and predict the ending:

‘There are three things you can predict in life: ______________, ______________ and ________________________________.’

2. Whole-group work. Collate all your suggestions. Try to come to a consensus.

3. Read the ending of the quotation at the end of the Unit and answer the questions:
   - What point do you think Mike Moore is trying to make about meetings?
   - What do you personally think about meetings?
Discussion

4. **Group-work.** Ask each other about the meetings you attend(ed). Use these question words:

   - What kind?
   - Where?
   - When?
   - Why?
   - How often?
   - Who?

5. Think on the following question: *Why are meetings sometimes either a) successful, or b) unsuccessful?*

6. **Group-work.** Discuss the reasons and note your ideas. For example:

<table>
<thead>
<tr>
<th><strong>Good meetings</strong></th>
<th><strong>Bad meetings</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clear objectives</strong></td>
<td><strong>Chairperson talks too much</strong></td>
</tr>
<tr>
<td>__________________</td>
<td>__________________</td>
</tr>
<tr>
<td>__________________</td>
<td>__________________</td>
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<td>__________________</td>
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<td>__________________</td>
<td>__________________</td>
</tr>
<tr>
<td>__________________</td>
<td>__________________</td>
</tr>
</tbody>
</table>

7. Exchange the information with your groupmates and come to the common conclusion.
8. Read the following ideas of a good and a bad meeting. Tick (√) those you agree with.

**WORKSHEET 3.5**

<table>
<thead>
<tr>
<th>Good meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants well prepared</td>
</tr>
<tr>
<td>Constructive discussion</td>
</tr>
<tr>
<td>All points on the agenda covered</td>
</tr>
<tr>
<td>Clear action points agreed</td>
</tr>
<tr>
<td>Meeting starts punctually and runs to time</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bad meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion dominated by few participants</td>
</tr>
<tr>
<td>Participants talk among themselves</td>
</tr>
<tr>
<td>Participants unprepared</td>
</tr>
<tr>
<td>Discussion deviates from the agenda</td>
</tr>
<tr>
<td>Discussion gets heated and personal</td>
</tr>
<tr>
<td>Meeting goes on far too long</td>
</tr>
</tbody>
</table>

9. **Whole-group work.** Share your points of view with your groupmates.

**Grammar Reference:**
Review of Tenses. Modals.

**Meetings**
10. **Pair-work.** Talk to your partner about the purposes of a meeting. Below are two examples of purposes, or reasons, for holding meetings. What others can you think of?
- give or share information
- present a proposal for discussion
- present a proposal for discussion
- present a proposal for discussion
- present a proposal for discussion

11. Whole-group work. Exchange your ideas with your groupmates.

**Responding and Turn-taking**

*In a meeting, it is important to be able to respond appropriately to what others are saying and to get your turn to speak.*

12. Match each phrase 1 - 26 with its function A-I. Then compare your answers with your groupmates. Each function may have several corresponding phrases.

<table>
<thead>
<tr>
<th>Functions</th>
<th>Functional Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>A   Asking for opinions</td>
<td>1. Could you let her finish please?</td>
</tr>
<tr>
<td></td>
<td>2. Just a minute, could I ask something?</td>
</tr>
<tr>
<td></td>
<td>3. What do you think?</td>
</tr>
<tr>
<td>B   Giving opinions</td>
<td>4. That’s true.</td>
</tr>
<tr>
<td></td>
<td>5. Could you just hang on a moment please?</td>
</tr>
<tr>
<td></td>
<td>6. I’m sorry, I don’t agree.</td>
</tr>
<tr>
<td>C   Agreeing</td>
<td>7. Can you explain it a bit more clearly?</td>
</tr>
<tr>
<td></td>
<td>8. Maybe, but …</td>
</tr>
<tr>
<td></td>
<td>9. How do you feel about …?</td>
</tr>
<tr>
<td>D   Disagreeing</td>
<td>10. I think …</td>
</tr>
<tr>
<td></td>
<td>11. Why don’t we …?</td>
</tr>
<tr>
<td></td>
<td>12. Can I finish the point?</td>
</tr>
</tbody>
</table>
13. I totally agree.
14. Can I get this clear?
15. Could I just say something?

16. I agree.
17. Let Stefan finish please, Max.
18. I think so too.

19. What’s your opinion?
20. I think we should …
21. Sorry, but …

22. Would you mind repeating that?
23. How about …?
24. What exactly do you mean?

25. I’m afraid I don’t agree.
26. In my opinion …

13. What other phrases can you add for each function?

14. Find more phrases in Part II Self-study Resources (Structure of Discussions and Meetings).

Listening and Turn-taking

15. Group-work. Each group decides on a professionally-oriented topic for discussion. You can choose from the list in Part II Self-study Resources (List of Professionally-oriented Topics for Discussions). Follow the framework below.
Table 3.2

**Role A:** Present your viewpoint on the point.
(You can either agree or disagree with the topic)

**Role B:** interrupt A (politely) and
...ask a question
or
...agree and add a new argument
or
...correct something which you think is wrong

**Role C:** interrupt B (politely) and put alternative viewpoint

**Role D (or A):** interrupt C (politely) and
...ask a question
or
...agree and add a new argument
or
...correct something which you think is wrong

---

*For You to Know*

It would be appropriate to start a meeting with the following phrases:

- **OK, let’s get down to business.** *The aim of the meeting is to…*
- **Shall we start? /Let’s make a start!** *In this meeting we must decide first… and second…*
- **Right, can we start please?** *We need to decide…*
Summarising main points
17. In each group, one person should be ready to summarise the main points from the discussion. The person responsible for summarising should report what was said, using the following phrases:

<table>
<thead>
<tr>
<th>Speech Bubbles</th>
<th>Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK, let’s go over what we’ve agreed.</td>
<td>Right, to sum up then …</td>
</tr>
<tr>
<td></td>
<td>The important point is …</td>
</tr>
<tr>
<td></td>
<td>The main thing is …</td>
</tr>
<tr>
<td></td>
<td>Everybody agreed that …</td>
</tr>
</tbody>
</table>

Self-assessment
The ending of the quotation (see Task 1): ‘… tax, death and more meetings’.
Unit 7 Leading a Meeting

Focus on

• discussing the roles of the leader
• simulation of a meeting
• participating in a mini meeting
• evaluating

By the end of the unit you will:

• be aware of actions of the leader
• be aware of what makes an effective meeting
• have a working knowledge of functional phrases the leader of a meeting uses
• be able to participate in meetings

Discussion

1. Whole-group work. Discuss the roles of a leader during a meeting. What is a leader responsible for? What should he or she do?

2. Summarise the main points from the discussion about the role of a leader. You may use the following phrases.

The important thing is …
The main thing is …
Basically, what they said was …
Everybody agreed that …
Some people think that …
But other people said that …
Leading a meeting

3. **Group-work.** Think about how the leader will:
   - open a meeting ________________________________________________
     ____________________________________________________________
   - introduce a theme _____________________________________________
     ____________________________________________________________
     ____________________________________________________________
   - enumerate ___________________________________________________
     ____________________________________________________________
   - change the theme _____________________________________________
     ____________________________________________________________
   - ask someone to be silent ______________________________________
     ____________________________________________________________
   - close a meeting ______________________________________________
     ____________________________________________________________
     ____________________________________________________________

4. **Whole-group work.** Compare your ideas with your groupmates.

5. Check the phrases in **Part II Self-study Resources.** Can you add any?
6. Imagine you’re leading a meeting. When will you use the phrases 1 - 8? Match them with your actions A – H. Then compare the results of your work with a partner.

1. Can you take notes please? A Remind people about the time

2. OK – we’ve only got 20 minutes left. Can we move on? B Tell a speaker to keep up to the topic

3. Sorry, what do you mean exactly? C Summarise

4. You’re the technical expert – what’s your opinion of the new system? D Ask someone to contribute

5. Right – let me summarise the main points. E Clarify the meaning

6. Could you tell us a bit more about that? F Stop one speaker so that another person can speak

7. Sorry to interrupt, Kate, but I’d like to hear what the others think. G Encourage someone to say more

8. Let’s stick to the main point. H Ask someone to do something

**Ending a meeting**

7. Read the following paragraph and identify three recommendations on how a meeting should end.

Regardless of a type of a meeting (information or decision making), it is important to close with a restatement of objective, a summary of what was accomplished, and a list of agreed action that needs to be taken.
Simulation
8. Hold a mini-meeting to discuss a professionally-oriented topic. Take it in turns to be the leader. The leader should encourage everybody to contribute ideas and summarise the main points after the discussion.

Evaluation
9. Look through the following questions and share your ideas about the meeting and everybody’s participation in it.
   1. Did everybody participate equally in the discussion?
   2. Did you understand the other participants’ points of view?
   3. Can you make some positive comments about the way other group members contributed to the discussion?
   4. Was there anything you or other group members could have done to make the discussion more effective?

Discussion
10. Whole-group work. Think on what makes an effective meeting.

Grammar Reference:
Present, Past and Future Simple.
Irregular verbs.
Adverbs.
Unit 8 CHECK YOUR PROGRESS

Task 1. Choose from the list A – H the most suitable heading for each phrase (1-7). There is one extra heading which you do not need to use. Write the answers in a line below, e.g. A1, B2 etc.

<table>
<thead>
<tr>
<th>A  Title</th>
<th>1 The aim of the article is… .</th>
</tr>
</thead>
<tbody>
<tr>
<td>B  Author</td>
<td>2 The writer states … .</td>
</tr>
<tr>
<td>C  Where/when published</td>
<td>3 The article is printed in … .</td>
</tr>
<tr>
<td>D  Main idea</td>
<td>4 It is written by … .</td>
</tr>
<tr>
<td>E  Contents</td>
<td>5 The headline of the article is …</td>
</tr>
<tr>
<td>F  Summing up</td>
<td>6 The author concludes … .</td>
</tr>
<tr>
<td>G  Your opinion</td>
<td>7 I find the article interesting to read.</td>
</tr>
<tr>
<td>H  Introducing the topic</td>
<td></td>
</tr>
</tbody>
</table>

Task 2. Read the following summary. Fill in the gaps choosing the right options given below which fit best according to the text.

(8) __________ water management which is considered to be one of the critical issues facing the mining industry. (9) __________ there are two reasons that can maximise the recovery of plant water. Recycling of valuable reagents can provide greater economic efficiency. (10) __________ that effective recovery of cyanide and increase of overall recovery of the valuable component are possible. (11) __________ an increase in overall gold recovery as a result of optimising water recovery.
The article is written by
Further the author highlights
The article expresses the view that
The article touches upon
The article discusses
The article is devoted to

The article is about
According to the text
The author starts by telling readers about

Task 3. The phrases below (12 - 23) are used in the meeting. Match each phrase with its function A – I.

Phrases
12. How about...?
13. Sorry, but...
14. I don’t agree.
15. Peter, what do you think?
16. I totally disagree.
17. Let’s sum up.
18. I agree with Max.
19. OK, shall we make a start?
20. I don’t think it’s a good idea.
21. I really think we need a report.
22. Personally I think...
23. I think we should...

Functions
A Starting
B Asking for opinions
C Giving opinions
D Interrupting
E Agreeing
F Disagreeing
G Making a suggestion
H Rejecting a suggestion
I Summarizing
Task 4. Underline the best alternative to complete the following sentences.

24. These shares are worth ____________.
   A to consider  B considering  C consider

25. Can you ____________ it a bit more clearly?
   A tell  B speak  C explain

26. What exactly do you ____________?
   A say  B mean  C speak

27. I’m not sure what you ____________.
   A are saying  B say  C are meaning

28. Let’s ____________ on to the next question.
   A move  B go  C talk

Task 5. Complete the following tapescript using phrases from the list. Use each phrase only once.

C Do we all agree then?  L Then let’s move on to the next topic.
J Then how do you feel  H you could be right
G I think  D Piet’s right
F Shall we start?  B Sorry
K I agree with that  I it’s better to start with
A in my opinion  E I can’t agree with that idea.

R=Rick,  E=Eric,  P=Peter

R Right. (29) ____________ The aim of this meeting is to discuss a very important issue: the best way to remove coal in our new coal face. Removal of coal may be done by different methods: mechanical cutting, use of explosives, nuclear explosives, hydraulic mining, use of lasers and drilling. So, what are your views? Eric, would you like to start?

E Well, (30) ____________ the use of explosives is one of the reliable methods of cutting hard rock underground. Recent developments have included slurries containing explosives as opposed to nitroglycerine. These slurries are extremely safe but require a strong detonation.
P Yes, (31)________________, Eric, also there is a considerable potential in the use of nuclear explosion.

E I’m afraid (32)_____________ ___. This process is limited because of radioactive contamination and structure damages. (33)_____________ about designing new systems and improving existing ones to increase the level of mechanization under complicated mining conditions?

P Yes, (34)______________ , on the condition that we have the investment we need, of course…

R Yes, (35) ______________, Eric. We must think of the cost. Personally (36) ______________ we should direct our drivage work towards improving and widening the use of heading and tunneling machines. I really do think (37) ________________ special combines and coal loading machines with crab buckets.

E (38) _____________, Rick, I don’t quite follow you. Could you explain what you mean?

R Well, I mean we need to use heading complexes to increase the efficiency of drivage. They integrate a heading machine, arch support erection, drilling and roof support units, a telescopic belt conveyor and a monorail.

R Right. (39) ______________ Develop tunneling machines which will provide for the mechanization of all operations of the driving cycle.

E Yes, definitely!

P I’d go along with that.

R Good. (40) ________________ - automation of mining operations. We need to decide which tools…

Self-assessment

Task 6. Assess yourself using the keys given in Part II Self-study Resources.
Indicative Reading

4. ‘Coaltrans’.
5. ‘Engineering and Mining Journal’.
6. ‘International Mining’.
7. ‘Mining Magazine’.
8. ‘World Mining Equipment’.

Useful Links:

2. Engineering & Mining Journal [online]. Available from:
Module 4

Giving Presentations
Unit 1 Effective Presentation

Focus on

• reflecting on experience of making presentations
• understanding the importance of making presentations
• components of a good presentation
• key points of presentation preparation
• structure of an effective presentation

By the end of the unit you will be aware of:

• what makes a presentation effective
• the key elements of a presentation
• functions and functional exponents, phrases used while giving a presentation
• major elements of delivery

Lead-in

1. Pair-work. Read the following quotations. Do you agree with them? Why? Why not? Discuss with your partner.

‘Speech is the index of the mind’. (Seneca)

‘Rhetoric is the art of ruling the minds’. (Plato)

Brainstorming

2. Pair-work. Discuss the following questions with a partner:

• Do you have any experience in giving a speech in front of an audience? If so, what sort of speech was it?
• What was the situation?
• What was the purpose of your speech?
• What was your audience?
• Was your speech successful? Why? Why not?

3. Imagine that you are asked to give a speech. Think about the components of a good presentation. Fill in the worksheet below and discuss your notes with a partner.

WORKSHEET 4.1

<table>
<thead>
<tr>
<th>Preparation</th>
<th>• Objectives</th>
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<th>Language</th>
<th>• Vocabulary</th>
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<table>
<thead>
<tr>
<th>Delivery</th>
<th>• Voice</th>
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</table>
Reading and Taking notes

4. Read the tapescript of the first part of a presentation from *Communication skills* training course. Complete a presenter’s transparency (Fig. 4.1) with the key points.

Good morning everyone, and welcome to our seminar. This morning I'm going to give you guidelines for preparing and delivering talks and presentations. I've divided my presentation into three parts: first we'll deal with preparation, then we'll focus on language, and lastly we'll look at delivery. As you listen, you might like to take notes on key points. There'll be an opportunity to ask questions at the end of each section, but do interrupt me if there's anything you don't understand.

So, let's start with preparation. This stage is extremely important and there are six key areas you need to think about when preparing your presentation or talk. The first one is objectives. You need to think carefully about the aim of your talk, and what you want to achieve. Second, the audience. Think about who they are, and what they need to know. The third area is content. You need to be careful not to give your audience too much information. Concentrate on what they need to know, on what will interest them. The fourth area is organization. Your presentation needs to have a clear and logical organization so everyone can follow it without difficulty. We'll come back to this point later, when we look at language. The fifth area is visual information. Presenting information visually, for example on an overhead projector or a flipchart, adds interest to a presentation and makes it easier to follow, but it's important to make sure you don't give too much information at a time. The last key area is practice. When you've finished preparing your talk, practise giving it. This way you'll discover if there are any problems and be able to check the timing. It should also make you feel more confident. So, to summarize, at the preparation stage you need to think about six key areas: first objectives, second audience, third content, fourth organization, fifth visual information, and sixth practice.
5. Read the tapescript of the second part of the presentation quickly, ignoring the gaps, to find out what signposting language is.

Right. Let's now turn our attention to the use of language, and in particular what we call 'signposting language'. It would be useful here if you look at the handout, 'Giving talks and presentations'. I won't go through each section, only draw your attention to some sections. If you look at the section 1) .............., you'll see there are phrases for introducing your talk, for giving your audience an overview of what's to come. Further down, in section 2) .............., there are phrases for introducing the different parts of your talk, and for moving from one part to the next. Later, in section 3) .............., there are phrases for focusing the audience's attention on visual information. In section 4) .............. you'll find phrases for concluding your talk and in section 5) .............. phrases for dealing with questions. You'll need to look at the handout more carefully later on, but I hope that gives you an idea of what I mean by 'signposting language' and the kind of phrases you need to use. Now, I think that's everything I want to say about language. Oh, there are just a couple of points... If you need to use technical words or jargon that the audience may not know, make sure you explain them clearly, and don't
use long, complicated sentences, keep your sentences short and easy to follow. Simplify your vocabulary and sentence structure. Right. Are there any questions on what we've covered so far?

6. Read the text again carefully and complete gaps (1 – 5) with the names of the sections (A – J) from the handout the presenter refers to.

**Giving talks and presentations**

**A  Introducing the topic**

This morning I'm going to... *(talk about...)*

Today I'd like to... *(describe...)*

The aim of my presentation this morning is to... *(explain...)*

I've divided my presentation into... *(three parts.)*

My talk will be in... *(three parts.)*

First, I'd like to... *(give you an overview of...)*

Second, I'll move on to...

Then, focus on...

After that, deal with...

Finally, we'll consider...

**B  Referring to questions**

Feel free to interrupt me if there's anything you don't understand.

If you don't mind, we'll leave questions till the end.

**C  Introducing each section**

So, let's start with... *(objectives...)*

Now let's move on to... *(the next part...)*

Let's turn our attention to... *(the question of...)*

This leads me to... *(my third point...)*

Finally... *(let's consider...)*
Summarizing a section

That completes my... *(description of...)*

So, to summarize... *(There are five key points...)*

Referring backwards and forwards

I mentioned earlier... *(the importance of...)*

I'll say more about this later.

We'll come back to this point later.

Checking understanding

Is that clear?

Are there any questions?

Referring to visual information

*This diagram* shows...

If you look at this graph you can see...

What is interesting in this slide is...

I'd like to draw your attention to... *(this chart...)*

Referring to common knowledge

As you know...

As I'm sure you're aware...

Concluding

That concludes my talk.

That brings me to the end of my presentation.

If you have any questions I'd be pleased to answer them.

Thank you for your attention.
J Dealing with questions

That's a good point.
I'm glad you asked that question.
Can I get back to you on that later? I'm afraid I don't have...

*(the information at present)*

I'm afraid I'm not the right person to answer that.

7. Read the tapescript of the last part of the presentation. Complete the presenter’s transparency with the key points.

Now we come to the last part, *Delivery*. You need to consider five key areas here. The first one is nerves. Most of us feel nervous when we speak in public, especially if we're speaking a foreign language. It can help if you breathe deeply. Breathing deeply calms you down and stops you speaking too quickly, which usually happens when you're nervous. The second area is voice. Obviously it's important to speak clearly and not too quickly, but it's also important to sound interesting. If your voice sounds monotonous your audience will fall asleep! Next, body language. Try to give the impression that you're relaxed and confident even if you're not, and try to avoid nervous gestures or movements. An important element of body language is eye contact, and keeping eye contact with the audience is important to keep them interested in what you're saying. For this reason you shouldn't read your talk or presentation. Instead, list key points on a flipchart or transparency, and refer to notes as well, if you need to. Stand rather than sit, but make sure you don't stand in front of visual information. And visual information is the fourth key area on our list. I mentioned earlier the importance of not presenting too much information at a time, and you saw in the handout phrases for focusing the audience's attention on what you want them to look at. Remember, too, to give them enough time to take in the information you're showing them. The fifth and final area is questions. The best policy is to answer questions in a
polite, diplomatic way. The phrases in the handout should give you some help here. So, to sum up, the five areas you need to think about when delivering your talk or presentation are nerves, voice, body language, visual aids, and questions. Well, this brings me to the end of my presentation. Thank you for your attention, and now if you have any questions I'll be happy to answer them. Yes, you have a question there...?


Fig. 4.2 A presenter’s transparency. *Delivery*

Giving talks and presentations: *Delivery*

1. nerves
2. .................................................................
3. .................................................................
4. .................................................................
5. .................................................................

8. Return to the worksheet in 3. Compare your notes with the information from the tapescripts, make necessary changes, and add missing points.

**Follow-up**

9. A possible structure for a presentation given on the following page was proposed by Paul Emmerson. Use it as a planning checklist - you don't have to follow every step, but at least consider all the points. The first letters make an acronym: **Bomber B.** Match the items in the presentation structure to their definitions. The first and the last have been done for you (*Bang!*-1, *Bang!*-7 ).
**Bang!** 1. something that you say or do at the beginning that gets the attention of the audience: a visual aid, a story, a joke, a surprising fact, a reference to 'here and now' (the audience, the place, etc).

**Opening** 2. use practical, easy-to-understand evidence to make your points clear.

**Message** 3. make it clear to the audience how your message connects to their needs / interests.

**Bridge** 4. a summary of your main points.

**Examples** 5. the main points of your presentation. Decide on just three key points at the planning stage and write them down as three short sentences. This will focus your mind, and more than this will be hard for the audience to remember. Perhaps use these three sentences as the final slide in your presentation.

**Recap** 6. thanking the organizers for inviting you, a few words about yourself, telling the audience the topic and structure of your presentation, making it clear whether questions should be kept to the end or not.

**Bang!** 7. a link back to your first *Bang!* to give a sense of closure.*


10. **Whole-group discussion.** Taking into account the information from the unit think about how well you are prepared for speaking in public and what you should do to develop your own presentation skills. Be ready to give a short presentation in front of your groupmates using the presentation structure in 9, corresponding phrases from handout in 6 and tips from handout in 7.
Unit 2 Making a Start

Focus on

- introducing yourself
- introducing the topic of a presentation
- talking on the purpose of a presentation
- outlining your talk
- developing a speech introduction

By the end of the unit you will:

- be aware of what makes a good introduction
- be aware of the function(s) of an introduction
- be able to state the purpose of an introduction
- be able to use appropriate phrases for making an introduction
- be aware of the ways of catching immediate attention

Lead-in

1. Pair-work. Paraphrase the following proverbs. Think about:
   - Do they mean the same?
   - Do you agree with their meanings?

Discuss your ideas with a partner. Share your ideas with the other pair using examples from your own experience.

A good beginning is half the battle.

A good beginning makes a good ending.
2. In groups of four sum up your ideas and think to what extent the following things contribute to the effectiveness of a speech introduction. Be ready to give a short presentation on the role of an opening using the items given below as key words and phrases.

- clear organization
- introducing oneself
- identifying the audience
- subject
- stating the purpose
- catching attention
- initial impression
- presentation outline

**Opening a presentation**

3. Which of the items on the worksheet below would you include in the introduction to an internal presentation to your groupmates/colleagues? Tick (✔) those you have chosen. What does your choice depend on?

<table>
<thead>
<tr>
<th>WORKSHEET 4.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>• your name and position</td>
</tr>
<tr>
<td>• department</td>
</tr>
<tr>
<td>• job responsibilities</td>
</tr>
<tr>
<td>• the title/subject of your presentation</td>
</tr>
<tr>
<td>• the purpose of your presentation</td>
</tr>
<tr>
<td>• the length of time you will take</td>
</tr>
<tr>
<td>• the main parts or points you will cover</td>
</tr>
<tr>
<td>• any visual aids you will use</td>
</tr>
<tr>
<td>• when the audience may ask questions</td>
</tr>
<tr>
<td>• a reference to the audience: a human touch</td>
</tr>
</tbody>
</table>
Introducing the topic

4. Choose from the following to introduce the subject of your presentation. Remember you are preparing a presentation to your groupmates/colleagues. What other information do you need to make a right choice?

I’d like to talk (to you) today about …
I’m going to present the recent …. explain our position on … inform you about … describe …

<table>
<thead>
<tr>
<th>The subject of my talk….</th>
</tr>
</thead>
<tbody>
<tr>
<td>focus</td>
</tr>
<tr>
<td>topic</td>
</tr>
<tr>
<td>presentation</td>
</tr>
<tr>
<td>paper (academic)</td>
</tr>
<tr>
<td>speech (to public audience)</td>
</tr>
</tbody>
</table>

Reading for specific information

5. Read carefully the information about specifying the purpose of a presentation. Answer the following questions:

- What may the purposes of presentations be? Think about different types of presentations.
- When do you need to state the aim of a presentation? What does it depend on?
- Add your own ideas.
For You to Know: Stating the Purpose of your Presentation

To make your presentation effective it is essential to have a clear idea of what you want to achieve.

_E.g._ Do you want to inform your audience about essential facts, or to persuade them to accept your proposal? This main purpose or aim needs to be briefly stated in the opening part of a presentation.

Use the following expressions for stating the purpose/objective:

- **We are here today to**
  - learn about …
  - decide …
  - agree …

- **The purpose of this talk is to**
  - update you on …
  - put you in the picture about …
  - give you the background to …

- **This talk is designed to**
  - act as a springboard for discussion.
  - start the ball rolling.

You can state the purpose right at the beginning or by building up gradually, leaving your statement of purpose until the latter part of the introduction. Both ways can be equally effective.

State the purpose of your own presentation using one of the following:

*In my presentation today I'm going to explain the technical problems involved in*…

*This morning I'd like to review progress on*…

*In my presentation I'll be proposing two new techniques which we need to incorporate in*…

*In my presentation today I'd like to summarize the main findings of the*
Create more impact by changing the normal word order. Begin your statement of purpose with the word “what”. What I’m going to explain today are the technical problems involved in....

What I’d like to do this morning is present the results of our study.

What I’ll be proposing in my presentation are two new techniques....

6. Inform the audience about the length of your presentation. Choose one from the following:

I shall only take ... minutes of your time.

I plan to be brief.

This should only last ... minutes.

7. Read the information given in the box below.

For You to Keep in Mind

Introduction of a Presentation

Remember! Many successful introductions include information about the main points to be developed during the presentation, and the order in which the presenter will develop these. It is called signposting.

Your introduction should contain some kind of signposting for the audience.

Signposting your presentation will help you define the limits of your presentation, and focus the audience on the aspects of the topic you want to talk about. Tell them what you will be talking about, and in which order you will develop your points.
8. Use the following expressions for *signposting* your presentation, outlining its development and organizing the information. Choose the appropriate ones for preparing a presentation to your groupmates.

*I’ll be developing three main points. First, I’ll give you…. Second, …. Lastly, ….*

*My talk will be in…*

*I’ve divided my presentation into four parts/sections. They are: …. The subject can be looked at under the following headings: …. We can break this area down into the following fields: ….*

9. Invite questions while introducing your talk.

*I’d be glad to answer any questions at the end of my talk. If you have any questions, please feel free to interrupt. Please interrupt me if there’s something which needs clarifying. Otherwise, there’ll be time for discussion at the end.*

**Follow-up**

9. *Group-work*. You are going to prepare and make a speech introduction on the topic “Latest advances in communications and their influence on different spheres of our life”. Follow the tips and use appropriate functional phrases from the unit.
Unit 3 Organising a Presentation

Focus on

- organising information and ideas
- key elements of a public speech
- structuring an effective presentation
- functions and functional phrases for presentations
- phrases used for linking ideas and parts of a presentation

By the end of the unit you will:

- be able to organise your ideas on chosen topic
- be able to identify the purpose of a presentation
- be able to consider the target audience
- be aware of words and phrases for structuring a presentation

Lead-in

1. Pair-work. Think about the last really successful presentation that you attended.
   
   - Was that easy to remember?
   - What features helped you to remember it?
   - What was the reason the presenter gave the talk?

   Share your ideas with the whole group.

Reading and Discussion

2. Read carefully the information given on the following page. Pay attention to the fact that preparation is one of the most important factors in determining your communication success.
For You to Know:

**Understanding What You Want to Achieve**

Before you start working on your talk or presentation, it’s vital that you really understand what you want to say, who you want to tell and why they might want to hear it.

To do this, ask yourself:

**Who** are you speaking to? What are their interests, presuppositions and values? What do they have in common; how are they different?

**What** do you wish to communicate? To provide your audience with this information, you should determine your message: What is the single most important thing you want your audience to understand, believe, accept, or do after they hear you?

**How** can you best convey your message? Language is important here, as are the nonverbal cues. Choose your words and your nonverbal cues with your audience in mind. Plan a beginning, middle and end. If time and place allow, consider and prepare audio-visual aids.

**When?** Timing is important here. Develop a sense of timing, so that your contributions are seen and heard as relevant to the issue or matter at hand. There is a time to speak and a time to be silent.

**Where?** What is the physical context of the communication in mind? You may have time to visit the room, for example, and rearrange the furniture. Check for availability and visibility if you are using audio or visual aids.

**Why?** In order to convert hearers into listeners, you need to know why they should listen to you - and tell them if necessary. What disposes them to listen? That implies that you know yourself why you are seeking to communicate - the value or worth or interest of what you are going to say.
3. In small groups, compare the tips from the text you have read with your own ideas in 1. What information is the most important and useful for you? Be ready to present your viewpoint in the whole-group discussion.

Organising information

4. *Group-work.* Think about different ways of organising information and ideas while preparing a presentation. Use the following steps to develop a clear plan for your talk:

- Brainstorm the topic to clarify what you know
- Organise the material logically, eg. chronologically, spatially (diagrams and mind-maps), sequentially (first, second), etc.
- Develop a plan or structure.

5. Now choose one of the following topics and brainstorm your ideas using your notes in 4 and the mind-map given below as an example. You may use the information from the text on the following page, the mind-map and texts in *Part II Self-study Resources.* Share your ideas with your groupmates.

1. Chinese mining ambitions
2. Top-priority challenges of the mining sector
3. Negative impacts of mining activities

![Mind-map of Major problems in coal-mining sector](image-url)
THE ENERGY QUEST

With a lack of significant oil reserves, China faces the real possibility of a huge energy shortfall to support its rapid rate of growth and has increasingly begun to look to its coal stocks to overcome the potential bottleneck.

Although the coal industry – officially regarded as the national economy's 'motive force'– has developed well over recent years, achieving record-breaking outputs and already providing the bulk of the country's primary energy needs, there are still places where demand exceeds supply.

Over recent years, the mounting requirements of the power, steel, cement and chemical sectors have grown apace, alongside the rapidly blossoming national economy. The Chinese government therefore plans to implement a series of initiatives to meet the need.

One avenue involves underground coal gasification (UCG). No fewer than 16 trials have been carried out since the late 1980s and over 30 billion tonnes of potentially suitable reserves have been identified in both active and abandoned mines. If the type of deep drilling technology developed in Europe turns out to be feasible for use in China's seams, this figure could be as much as ten times greater.

Even if it does not, mine cogeneration, using the naturally occurring methane gas from the coal seam to generate power, has already established a significant stake in the Chinese energy market.

The 120MW generation facility at the Sihe Mine in Shanxi Province – completed in 2008 – provides energy for around 90,000 households and a variety of local industrial and commercial premises. However, neither the quest for energy, nor Chinese mining ambition, stops here.

Identifying the key elements of a presentation

6. Group-work. Continue working in the same groups. Now you are going to identify the key elements of a public speech answering a number of questions:
• What is the **purpose** of your presentation? What do you want to achieve?
• How should you consider your **audience**? What **information** should you include based on their interests, needs and background?
• What are the ways to structure a presentation? What does the **structure** involve?
• What are you going to use to highlight the main points of your presentation? What can **supplementary media** include?
• *How can you explain the notion “speech situation”? What factors contribute to the effectiveness of presentation delivery?*
• Why is it useful to **analyse** your performance?

7. Sum up your ideas in 6 taking into account that words in **bold** present the key elements of a public speech. Give a presentation on the results of your work to the whole group.

**Follow-up**
8. Prepare a short presentation on one of the topics in 5 using the information from the unit. Be ready to give it in front of your groupmates. It may be a team-presentation. Use the *Structure of a Presentation* and *Functional Phrases for Presentations* in *Part II Self-study Resources*. 
Unit 4 Language Styles

Focus on
- formal and informal presentation styles
- personal and impersonal language styles
- differences between written and spoken language
- vocabulary used for presentations
- strategies to improve the language

By the end of the unit you will:
- be aware of proper language for presentation
- be able to use appropriate style for your speech
- be able to change written into more natural spoken language
- be able to simplify your vocabulary and your sentence structure

Lead-in
1. Pair-work. Look at the proverbs given below and answer the following questions.
   - What does each one mean?
   - Which proverb is closer to your own ideas?

   \[
   \text{All doors open to courtesy.}
   \]

   \[
   \text{A word is enough to the wise.}
   \]

2. Paraphrase the proverbs.
3. Share your statements within the group. Find similarities and differences in your own interpretation of the proverbs.
Reading and Discussion

4. *Pair-work*. Read the two alternative introductions for the same presentation
Pay attention to the style of these openings.

**Introduction 1**

“Good morning, ladies and gentlemen, and thank you very much for inviting me here to speak to you. Let me introduce myself - my name is Dmytro Kozachenko and I am the sales director of Dnipro Properties.

My objective today is to introduce our company and show you how we can help you find the right office for your business. I have divided my presentation into three parts. First I'll tell you a little about the history of our company, then I'll show you some slides of office space that we currently have available, and finally I'll deal with the question of cost. My presentation will take around twenty minutes, and if you have any questions I'll be pleased to answer them at the end.

Okay. Let's start by looking at who we are and how the company has developed over the last twenty years *(shows first slide, which is a timeline of the history of the company)*.”

**Introduction 2**

I bet you're sick of looking for office space, right? Are you feeling like this? *(shows slide with a cartoon of a stressed businessman in a small room)* Who feels like that? *(everyone laughs)* Wouldn't you prefer to feel like this? *(shows slide with a cartoon of a relaxed executive in a large, modern office)*.

Now, you all know the importance of location for business success. Well, we can help you. We're called Dnipro Properties, and we've been offering rental solutions in this city for more than twenty years. I'd like to find out something from each of you in turn: what is the single most important reason why you want to move from your current offices?

---

5. Analyse the introductions answering the questions below.
   - How formal the introductions are? What are the peculiarities of formal style?
   - Is the structure of the presentation clear in both introductions? Why/Why not?
   - What are the advantages and disadvantages of each of the styles? Fill in the table below.

Table 4.1

<table>
<thead>
<tr>
<th>Openings</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening 1</td>
<td>- <em>Clear for a non-native speaker</em></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Opening 2</td>
<td>-</td>
<td>- <em>The speaker might lose direction or miss important points.</em></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

6. Most people use a presentation style that is somewhere between these two extremes. What does it depends on? Think about speaker's personality, audience, situation, etc. Discuss your ideas with a partner

Improving the language

6. Use one of the following expressions to replace each of the expressions in *italics* in the introduction given on the following page to make it more formal.

a  don’t hesitate  

b  I’m delighted  

c  at greater length  

da  an opportunity  

e  sections  

f  my purpose is  

g  I’m in charge  

h  review  

i  divide
Good morning, ladies and gentlemen. 1) *It’s a pleasure* to be with you today. My name is Anton Gorobenko and 2) *I take care* of mining equipment at our brunch office here in Dnipropetrovsk. 3) *We are here today* to 4) *go through* some key figures and to outline development programmes over the next five years. So what I intend to do is to 5) *break down* this presentation into three 6) *parts*: first, the financial review; second, the problems facing us; and finally, the development strategy I propose. If you have any questions, please 7) *feel free* to interrupt me, but I should also say there’ll be 8) *a chance* to discuss issues 9) *in more depth* after my talk.

7. Look at the differences between written and spoken language. Then read the extracts from the presentations a-d below, and decide which are given in written language and which are in spoken language. Find examples in each extract to support your answers.

<table>
<thead>
<tr>
<th>Written language</th>
<th>Spoken language</th>
</tr>
</thead>
<tbody>
<tr>
<td>long sentences</td>
<td>shorter sentences</td>
</tr>
<tr>
<td>complex vocabulary</td>
<td>simpler vocabulary</td>
</tr>
<tr>
<td>complex arguments</td>
<td>simpler arguments</td>
</tr>
<tr>
<td>impersonal style</td>
<td>personal style</td>
</tr>
</tbody>
</table>

a) *You can see here, 35% of the group of managers classified as participative reached senior management positions. On the other hand, 74% of the more individualistic managers achieved senior management status.*

b) *An individualistic style appears to be closely associated with rapid career path progression, whereas a group or participative style, despite its evident attractiveness to all members of staff, is correlated with a relatively slow career progression.*
c) Although lip service is paid to the concept of participative management, their real perceptions of leadership qualities completely contradict this view. It can be further seen that…

d) So, we find there is a massive contradiction. Good managers are supposed to be participative – to make sure they consult and discuss. Good leaders are supposed to be strong individuals – able to make decisions of their own.

8. Look through the information in the table and Remember box below. Think about what makes a style personal.

<table>
<thead>
<tr>
<th>Tense</th>
<th>Personal style</th>
<th>Impersonal style</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Active</td>
<td>Passive</td>
</tr>
<tr>
<td>Present Simple</td>
<td>I think</td>
<td>It is thought</td>
</tr>
<tr>
<td>Present Continuous</td>
<td>We are discussing</td>
<td>It is being discussed</td>
</tr>
<tr>
<td>Present Perfect</td>
<td>The boss has said</td>
<td>It has been said</td>
</tr>
<tr>
<td>Past Simple</td>
<td>He called a meeting</td>
<td>A meeting was called</td>
</tr>
<tr>
<td>Future</td>
<td>I will refer to this later</td>
<td>This will be referred to later</td>
</tr>
</tbody>
</table>

For You to Remember: Language of a Presentation

We use more personal pronouns with action verbs and while referring to the audience: I think...

- We are working on...
- We will launch the product in June.
- As I’m sure you know...
- We have all experienced...
- You may remember...
- As I'm sure we’d all agree...
9. *Group-work*. Using the information from the unit change the text given below into more natural spoken English.

Start like this: *I’d like to talk today about…*

---

**Introduction**

The subject of this paper is a cost benefit analysis of introducing job sharing. The aim is to provide the necessary information for a decision to be made within the next two months. The subject will be looked at under the following headings: financial implications, working practices, and social effects.

**Financial implications**

A detailed study of personnel and associated costs has been carried out. From a payroll point of view, 10% of staff choosing to job share will mean no actual increase in direct salary costs. However, there will be additional costs incurred in the administration of salaries.

---

**Follow-up**

10. Choose a text from your own sources or *Part II Self-study Resources* and change it into more natural spoken language. Practise presenting the information to the whole group.
Unit 5 Visual Interpretation of Information

Focus on

- using supplementary media
- describing facts and figures
- describing trends
- diagram types
- language used to describe trends

By the end of the unit you will be able to:

- understand and describe graphic information
- describe diagrams of different types
- use appropriate language for describing facts and figures
- describe graphs and charts
- use the visuals

Lead-in

1. Pair-work. Think about different ways of illustrating the main aspects of your talk.
   - What are they?
   - Which of them are most effective?

2. Fill in the mind-map given below with visual aids you have ever used or know about. Share your ideas with the whole group.
Reading and Discussion

3. *Group-work*. You are going to read the tips on how to deal with visual aids. Find the information about:

- equipment
- visual images
- requirements for visual aids preparation and usage.

Organise your notes and your own ideas in the form of a table. Be ready to present the information to the whole group.

*Reinforce Your Message with Visual Aids*

Consider the use of visual aids. Slide projectors, data projectors, video machines and computers should be tested out beforehand to make sure they are operating correctly and that you know how to use them.

Make sure you do not cram too much information onto any single visual. A good rule of thumb to follow is to keep each visual to six lines or less. Also, make sure the images are large enough the audience can see it clearly from all seats and make sure the colors used are easy on the eyes, taking into account the lighting.

A sad fact is that much of your authority will be judged by the quality of your slides – you need to make sure that their design supports the style of your message.

Overheads should be clearly marked and arranged in order beforehand. Flip charts should be prepared in advance when possible. When used during the presentation to take notes, make print large enough for all participants to see.
When using these various visuals, do not turn your back to the audience. Position yourself so you can use the visuals while facing your audience.

Visual aids help to make presentations effective. It is important that data can be presented in a clear manner that is easy to interpret and analyse, and for the listeners to understand.

**Describing graphs and charts**

4. Study the information given below and do the tasks that follow.

A fact is different from an opinion because it is objective and often involves measurement. Graphs, charts and tables are ways of presenting information in a form that is easy to understand. Line graphs are used to show a trend or pattern which usually takes place over a period of time. It is important to look at the overall pattern on a line graph as well as the significant features within it. Match each type shown above with one of the following descriptions.
1. A __________ shows the different parts of a total amount. For example, it could show the percentage of money that a student spends on entertainment, clothes, accommodation and food.

2. A __________ is useful for comparing things and showing amounts or quantities at specific times. For example, the percentage of people who own certain products (cars, televisions, etc.) in three different periods.

3. A __________ contains a list of numbers or facts arranged in rows and columns. It could, for example, be a list of results for football league tables.

4. A __________ is useful for showing how things change over time, and for showing two or more sets of measurements which are related to each other. For example, it might show how the number of passengers of an airline has changed from month to month.

5. Pair-work. Which of the ways of presenting information (graphs, charts, tables) would you use to illustrate the following? Explain your choice to a partner.
   1. Coal production in your area each month during a 12-month period
   2. The results of a survey of the world’s biggest markets for coal
   3. A comparison of coal production in Asia (has grown fastest) and Europe (has seen a decline in production) during the last five years
6. Look at the bar chart below. It shows what a group of students think about a seminar they have just attended.

Having looked at this graph, you could say that *half the students did not like the seminar*. Or you could say that *50 per cent of the students did not like the seminar*. You could be even more specific and state that *5 out of 30 students did not like the seminar*. These are all facts.

7. Find out some factual information about hobbies of your group-mates using the worksheet below. Put a tick against each activity the people like doing and then write the total in the *Total* column. Turn the table into three different types of diagrams (graph, bar chart, pie chart). Be ready to describe them to the whole group.

**WORKSHEET 4.3**

<table>
<thead>
<tr>
<th>Activity</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sports</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dancing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer games</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jogging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yoga</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooking</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. Describe your own diagrams using the following structures:
number (e.g. five out of ten) students enjoy...
percentage (e.g. 50 per cent of) students enjoy...
general (e.g. the majority of / a large number of / most / very few / hardly any) students enjoy...

Use of language
9. Using some of the words and phrases from the table 4.3 Useful language: describing trends, describe the pattern in each graph below. The first (a) has been done for you.

10. Describe each pattern using an adverb and the information from the tables given below. e.g. a It falls sharply
### Table 4.3

**Useful language: describing trends**

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Verb</th>
<th>Noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>go down</td>
<td>decrease</td>
<td>same</td>
</tr>
<tr>
<td></td>
<td>fall</td>
<td>same</td>
</tr>
<tr>
<td></td>
<td>drop</td>
<td>same</td>
</tr>
<tr>
<td></td>
<td>decline</td>
<td>same</td>
</tr>
<tr>
<td></td>
<td>plunge (big change)</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td>plummet (big change)</td>
<td>/</td>
</tr>
<tr>
<td>go up</td>
<td>increase</td>
<td>same</td>
</tr>
<tr>
<td></td>
<td>rise</td>
<td>same</td>
</tr>
<tr>
<td></td>
<td>grow</td>
<td>growth</td>
</tr>
<tr>
<td></td>
<td>double</td>
<td>doubling in + n</td>
</tr>
<tr>
<td></td>
<td>treble</td>
<td>trebling in + n</td>
</tr>
<tr>
<td></td>
<td>rocket (big change)</td>
<td>/</td>
</tr>
<tr>
<td>no change</td>
<td>level off</td>
<td>a levelling off at</td>
</tr>
<tr>
<td></td>
<td>remain the same</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td>remain stable</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td>stabilize</td>
<td>/</td>
</tr>
<tr>
<td>constant change</td>
<td>fluctuate</td>
<td>fluctuation in + n</td>
</tr>
<tr>
<td>position</td>
<td>reach a high/peak of</td>
<td>a high of</td>
</tr>
<tr>
<td></td>
<td>reach a low of</td>
<td>a low of</td>
</tr>
<tr>
<td></td>
<td>stood at</td>
<td>/</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Meaning</th>
<th>ADJ/ADV</th>
</tr>
</thead>
<tbody>
<tr>
<td>small change</td>
<td>steady(ily)</td>
</tr>
<tr>
<td></td>
<td>slight(ly)</td>
</tr>
<tr>
<td></td>
<td>gradual(ly)</td>
</tr>
<tr>
<td>large change</td>
<td>considerable (ly)</td>
</tr>
<tr>
<td></td>
<td>sharp(ly)</td>
</tr>
<tr>
<td></td>
<td>dramatic(ally)</td>
</tr>
<tr>
<td></td>
<td>significant(ly)</td>
</tr>
<tr>
<td></td>
<td>substantial(ly)</td>
</tr>
</tbody>
</table>

**Grammar Reference:**

Follow-up

11. **Group-work.** You are going to give a presentation on coal production using the information from the article given below. Focus on:
   - global coal demand
   - coal production
   - coal consumption
   - coal price forecast

Use any of the ways (graphs, charts, tables) to illustrate the information and words and phrases from the table 4.3 **Useful language: describing trends.**

12. Practise giving your presentation in the group. You may choose a presenter or give a team-presentation.

   **Coal Production**

   **Why There's Further Upside for Coal Stocks**

   By Ian Cooper

   "While coal supply is bad for China, it's great news for U.S. coal companies, which are predicting that global coal demand, will outstrip supply by 25 to 35 million metric tons. Coal consumption could rise 74% by 2030. India alone is expecting for its current annual demand of 460 million metric tons to quadruple by 2031. That's great news for coal company earnings potential. Digest that... and we'd recommend keeping an eye on Arch Coal (ACI:NYSE), which just raised its dividend, and the Market Vectors Coal ETF (KOL), which tracks the performance of a Stowe Coal Index that includes 60 global coal production and transportation companies," said the editors of Small Cap Trading Pit and Wealth Daily, April 26, 2008.

   Two months after the recommendation, we're still just as bullish.

   ACI ran from a $54 low to a high of $68 after our mention, only to settle at $68 yesterday.
KOL ran from about $42 to about $54.

And there's still plenty of upside remaining, as coal futures now price for more than double what they were six months ago.

**Coal Production and the Global Coal Problem**

If it's not one thing, it's another for China... earthquakes... pollution... and we're just months from the 2008 Summer Olympics. China, which depends on coal for 70% of its power, now warns that power plants are running out of supply, with some regions down to a three-day supply.

Reportedly, power plants in the Anhui province have about 2.8 days supply. Beijing has 6.9 day supplies. A week's supply, say reports, is considered the danger line.

Even Australia, the largest exporter of coal, is having a tough time. Thanks to flooding issues, six of the largest coal exporters failed to deliver, causing a big drop in supply.

Sure, other coal exporters could easily fill the gap left by Australia. But South Africa has been busy dealing with power shortages. And Russia is more focused on exporting gas than coal.

And while coal production projects have been announced, we're not going to see an overnight increase in supply. In the meantime, we're stuck with rising coal prices... ahead of the 2008 Summer Olympics.

**And we're not the only ones still bullish on higher coal costs.**

Friedman Billings Ramsey just raised its coal price forecast and upgraded Massey Energy, suggesting that demand will outpace supply through 2010.

The forecast for metallurgical coal was raised by 90% for 2009 to $130 per ton. For 2010, the forecast was raised to $250 a ton. For steam coal, used to produce electricity, prices were forecast to run another 25% in 2009 and 2010.
And it's all thanks to lower supply and significant international demand. The steam coal market, they say, is "undersupplied as power demand accelerates the need for the commodity."

If you want to leverage low supply and high demand for coal, the KOL ETF and shares of ACI are still just as attractive. SC Trading Pit issued a buy on an $8 laggard coal stock going to $12.

When markets get volatile, as they are now, investors start looking for a safe thing.

**Coal Doesn't Seem Boring when Investors are Nervous...**

Another way to profit from coal is to buy coal dividend paying stocks, or those providing a steady source of income. Dividends help protect investors even during economic malaise.

Some of our favorite dividend-paying coal stocks include (dividends, according to Yahoo Finance):

- Penn Virginia Resources (PVR) pays a 6.7% dividend.
- Alliance Resources Partners (ARLP) pays a 5.2% dividend.
- Natural Resources (NRP) pays a 5.9% dividend.
- Progress Energy (PGN) pays a 5.8% dividend.
- CH Energy (CHG) pays a 5.7% dividend.
- Alliance Holdings (AHGP) pays a 4.3% dividend.
- Arch Coal Inc. (ACI) pays a 0.60% dividend.
- Massey Energy (MEE) pays a 0.30% dividend.

In our current economic meltdown, it's best to diversify with stocks that can bring in consistent money to help offset hyper-priced food and energy bills. With the expectation of higher coal cost, plus dividend payouts, we expect further upside in each of the coal stocks we've mentioned.

The eventual goal of every investor is to go from supporting a portfolio to having a portfolio that supports the investor. That's part of the reason we love dividend stocks. They produce a steady stream of income despite the direction of the broader market.

Good Investing,
Ian L. Cooper

Accessed on the site http://www.wealthdaily.com/
Unit 6 Delivery Techniques

Focus on

- delivery techniques
- elements of effective delivery
- manner of delivery
- body language

By the end of the unit you will be aware of:

- types of delivery
- appropriate manner of delivery
- non-verbal communication
- ways to interest your audience
- ways of catching audience attention

Lead-in

1. Pair-work. Read the following quotation. How do you understand it? Do you agree with it? How does it relate to the topic of the unit? Share your ideas with your partner.

"When you can do the common things in life in an uncommon way, you will command the attention of the world." (George Washington Carver)

Brainstorming

2. Pair-work. Discuss the following questions with a partner:

1. How do you understand the term ‘non-verbal communication’?
2. What does non-verbal communication include?
3. What elements of non-verbal communication are most important?

Fill in the mind-map given on the following page and describe it to the whole group.
Reading and Discussion

3. Read carefully the article given below. Pay attention to the points you discussed in 2. Add new information to your mind-map or table.

Speak English with Body Language

By: Joseph DeVeto

When we speak, we use much more than just words. We also communicate with our face, our hands, and even our own body. This kind of communication can be called "body language" or "non-verbal communication". Non-verbal communication not only includes how we move our body, but also hand gestures, facial expressions including eye contact, and how we use our voice. Psychologists estimate that between 60% and 80% of all of our communication with other people is non-verbal. We communicate a wide range of information non-verbally. We also show our feelings, attitudes, moods, hopes and wishes far better with non-verbal language than with words.
Not only is a large quantity of communication non-verbal in nature, but the quality is high as well. For example, if a person says something positive while his face looks negative, which are we more likely to believe? In most cases, we will believe the non-verbal facial expression. In the end, his words will not succeed in communicating his message. If we want to succeed in our everyday conversations, we really must learn to "speak" with our body well!

Let me begin by giving you some general advice. The main thing is to relax and be natural. Trying too hard to use "body language" will make you seem a bit strange. Instead, you should allow your body language to naturally follow your words. If you say something positive, then your face, body and hands should show it too. If you are expressing a sad or worried feeling, then your face, body and hands should change with that feeling. As you think about it more and consider how you can use your body to communicate, you will become more and more natural.

More specifically, let's talk about hand gestures. Using our hands, we can emphasize our main points, remind our listener how many main points we have, and let our listener know when we are changing topics. A dramatic movement of the hand or moving our hands wide apart can signal how important something is. We can even use two fingers, either close together or far apart, to show how big something is. To show very strong feeling we could clap our hands together loudly or make a fist (put our fingers in a ball as though we want to hit someone) and hit a table or desk. To show that we welcome someone, on the other hand, we can hold our hands out with the palms up, and maybe move them towards a chair to invite someone to sit next to us.

Of course, we can also use our fingers to count, but be careful. People in some countries do not count the same way as in China. In France, for example, people do not count "one" by holding up their first finger, called the "index finger". Instead, they hold up their thumb. In Japan, some people put their thumb down (with the four fingers up) to mean "one"! This can create confusion sometimes, so be sure not to use only non-verbal communication. Use words too, so that your listener will be sure to understand you.
Some hand gestures that are popular are waving to someone as a greeting or holding your index finger and thumb into a circle to mean "okay". However, there are some countries where these can have bad meanings! It's important to be careful when using certain common gestures. Don't assume that everyone in the world understands one gesture in the same way. Still, you can use basic gestures most of the time, then when you see a strange reaction from your listener, you can make sure to emphasize your real meaning by using words and a different hand movement.

Facial expressions are a very common way that we use to communicate every day. When speaking English, it's generally good to smile at your listener from time to time, especially when he or she has made an interesting comment. Also nod your head up and down to show you are really interested. From time to time, you can add a sound of agreement, such as "Uh huh" or even just "mmmm", to show you are listening. Above all, it is important to maintain eye contact while listening. Sometimes it is okay to move your eyes away when you are speaking, because you do have to think about what you want to say. However the listener should almost always look at the speaker without moving the eyes away (without "averting" the eyes).

If you are speaking to someone while standing, it is important to stand neither too close nor too far from the speaker. Stand at a position that is comfortable for both of you. Again, though, you must be careful when talking to people from different countries. People from some southern European countries, such as France or Spain, often stand closer together when speaking than do Chinese people. And people from Arab countries such as Saudi Arabia stand even closer! You do not always have to adapt your behavior when you meet people from around the world, but you should be aware of potential misunderstandings.

If, instead of standing, you are speaking to someone while talking, you can show your friendliness and "openness" by leaning a little bit toward the speaker. Try to avoid folding your arms in front of your chest. Many people consider folding your arms as a cold, "protective" gesture. Instead, you could have your hands on your knees, or one hand on your knee and the other at your side. You can fold your arms sometimes if
you wish, but don't hold them there for a long time. As long as your hands move from
time to time, the listener will not think that you are unfriendly.

Besides all of the obvious physical ways to communicate non-verbally, we have our
voice. We use "intonation", loudness and "pitch" (how high or low our voice sounds)
to change our meaning. Even when our voice does not make an actual word, it still
can communicate feeling and attitude. Combined with the words we use, our voice
can be a very powerful way to express what we mean. A strong voice can
communicate confidence while a quiet voice communicates intimacy or some secret
message. A loud, high pitched voice (similar to a girl screaming) can communicate
nervousness or excitement, while a deep voice might mean we are tired or not
enthusiastic.

Body language is one of the basic skills that all students need.


4. Look through the text again, find the information to fill in the table given
below. You may use your own ideas.

<table>
<thead>
<tr>
<th>Parts of the body or other elements</th>
<th>Movements or quality</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>hands</td>
<td>wide apart</td>
<td>signal how important something is</td>
</tr>
<tr>
<td>finger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>smile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>voice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Study recommendations given on the following page. Which of them are
most useful for you personally? Support your answer with the explanations.
For You to Remember:  
Recommendations for Delivery and Style

**Tempo**
Vary the speed – don’t talk at the same pace all the time. Pause from time to time – a few seconds of silence are sometimes just as effective as words.

**Volume**
This is largely a question of voice projection. There is no need to shout. Vary the volume. A quiet part can contrast with a louder part.

**Expressiveness**
Vary the pitch. A good way of varying the pitch is to introduce questions into your presentation. This should force you to raise the pitch a little.

**Articulation**
The sounds will be clearer if you don’t rush your words. If you anticipate difficulty in pronouncing certain key words, practise them beforehand. Usually the problem is the syllabus stress.

**Sentence length**
Avoid reading your text – this should help keep the sentences fairly short.

**Register/Style**
Make your English sound natural – don’t use written English. Decide how formal the language should be for the audience.

**Emphasizers**
It’s always a good idea to exaggerate a little – it will help to get your message across persuasively.

**Follow-up**
6. Having studied the tips from the articles, prepare a short presentation on delivery techniques. Be ready to give it in front of your groupmates. Pay special attention to the different meanings of the same gestures in different cultures. Use the *Structure of a Presentation* and *Functional Phrases for Presentations* in *Part II Self-study Resources*. 
Unit 7 Evaluating the Effectiveness of a Presentation

Focus on

• reviewing what makes a good presentation
• key points of presentation preparation
• reviewing delivery techniques
• practicing giving presentations
• evaluating presentations

By the end of the unit you will be able to:

• give an effective presentation
• follow the guidelines for preparing and giving presentations
• to evaluate each other’s performance
and be aware of criteria for evaluating your presentation

Lead-in

1. Group-work. Arrange three groups A, B and C. Being in your groups review the guidelines for speech preparation. Organise your ideas in the form of a poster. Group A will think about what you should do before the presentation, group B – during the presentation, and group C – after the presentation.

2. Exchange the posters with the other groups adding your ideas on the topics.

3. Take your initial poster, discuss all the information in groups. Be ready to give the presentations on your topics.

Reading and Discussion

4. Read carefully one of the approaches to the principles of public speaking on the following page. You might find the information helpful and easy to remember. Add new ideas to your posters.
For You to Know:

A 7 P approach to the principles of public speaking

Purpose: Why are you speaking? What do you want audience members to know, think, believe, or do as a result of your presentation?

People: Who is your audience? How do the characteristics, skills, opinions, and behaviours of your audience affect your purpose?

Place: Why are you speaking to this group now and in this place? How can you plan and adapt to the logistics of this place. How can you use visual aids to help you achieve your purpose?

Preparation: Where and how can you find good ideas and information? How much and what kind of supporting materials do you need.

Planning: Is there a natural order to the ideas and information you will use? What are the most effective ways to organize your speech in order to adapt it to the purpose, people, place, etc?

Personality: How do you become associated with your message in a positive way? What can you do to demonstrate your competence, charisma, and character to the audience?

Performance: What form of delivery is best suited to the purpose of your speech? What delivery techniques will make your presentation more effective? How should you practise?

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5. In groups of three you are going to discuss the guidelines for preparing a presentation based on the information from the article given below. Use A Checklist for your Presentation that follows the article.

A Checklist for your Presentation

Start preparing early:
- don't wait until the last few days to prepare;
- prepare it early, let it rest a little bit and come back to it;
- practise your entire presentation including your slides;
- if you can practise it before a group of colleagues or friends

Think about Your Audience:
- who are they and why are they here;
- what are their interests;
- what do they know;
- what do they want to know;
- what is a worthwhile investment in their time

Be clear about your purpose:
- are you informing or persuading;
- tell them what you are going to do;
- what do you want the audience to know, feel, or believe afterwards

Use an Effective Introduction:
- orient the audience, explain why it is important, set the tone;
- establish a relationship between the speaker and the audience,
establish credibility;
- avoid weak introductions such as apologies, jokes, rhetorical questions

Organise your presentation clearly and simply:
- prioritise topics and allocate time accordingly;
- stick to only 3-5 main points;
- have a well thought pattern (examples are problem/solution,
chronological, cause and effect, topical);
- use transitions to move smoothly from one point to the next
Use supporting materials to flesh out main points:
Use examples, statistics, expert opinions, anecdotes

Compose for the Ear, not for the Eye:
- use simple words, simple sentences, markers, repetition, images, personal language ("You" and "/")

Create an Effective Conclusion:
- summarise, set final image, provide closure; don't trail off, don't use trite phrases;
- don't just present data or summarised results and leave the audience to draw its own conclusions;
- you have had much more time to work with your information than your audience; share your insight and understanding and tell them what you've concluded from your work

Sound spontaneous, conversational, and enthusiastic:
- use key phrases in your notes so you don't have to read, use the overhead instead of notes;
- vary volume, don't be afraid of silence, don't use fillers like "um"...;
- Practise, Practise, Practise

Use Body Language Effectively:
- relaxed gestures, eye contact;
- don't play with a pen or pointer;
- don't block visual aids

Use Visual Aids to Enhance the Message:
- you will probably need to use overhead transparencies in your presentation but to be effective, they must be designed and used properly;
- use visuals to reinforce and clarify, not overwhelm;
- keep visual aids uncluttered;
- use titles to guide the audience;
- if you use tapes or disks, make sure the equipment is compatible
Analyse the Environment:

- check out size of room, placement of chairs, time of day, temperature, distractions;
- check out AV equipment ahead of time; have a spare bulb

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6. Choose the best presenter in your group to give a talk. This flowchart will help him/her.

```
Introduction
   I’d like to talk today about...

   ↓

Outline
   I’ve divided my talk into...

   ↓

Questions
   If you have any questions, please...

   ↓

Part 1
   Let’s start with...
   So that covers...

   ↓

Part 2
   That brings me to...
   Let’s leave that there...

   ↓

Part 3/4 etc.
   ...and turn to...

   ↓

Summary
   To sum up...

   ↓

Conclusion
   In conclusion...
```

7. Listen to the presentation of your groupmates. Use the assessment form to evaluate each other’s performance.
## Assessment Form

<table>
<thead>
<tr>
<th>System</th>
<th>poor</th>
<th>satisfactory</th>
<th>good</th>
<th>excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>general organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>introduction</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ending</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>connections</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>relevance</td>
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</tr>
<tr>
<td>length</td>
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<tr>
<td>level</td>
<td></td>
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</tr>
<tr>
<td><strong>Delivery</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>tempo</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>volume</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>expressiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>articulation</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sentence length</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>register/style</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>linkers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>emphasizers/minimizers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Manner</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>audience contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>assurance/confidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Body language</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stance and posture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hands</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>eye contact</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>movement</td>
<td></td>
<td></td>
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<tr>
<td>facial expression</td>
<td></td>
<td></td>
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<tr>
<td>appearance</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Visual aids</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>relevance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Overall impression</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Unit 8 CHECK YOUR PROGRESS

By the end of the unit you will:

- understand assessment criteria
- read and understand rubrics necessary for taking end-of-module test
- have practised taking test and manage time effectively

Task 1. Sort out the key words and phrases according to the structure of a presentation for:

A introducing your talk
B outlining your presentation
C summarising and concluding

1 I’ll take only about 15 minutes of your time.
2 Thank you very much for your attention.
3 And now let me give you a summary of the issues we have looked.
4 I’d like to talk to you today about…
5 This morning I’m going to give you a brief presentation about…
6 This will take about half an hour.
7 Well, that brings me to the end of my talk.
8 During my talk I’ll be looking at 5 main areas.
9 To illustrate my talk I’ll be using some diagrams.
10 I’d like to explain to you today the main features of…

Task 2. Read the following extract about energy production. Complete the gaps with the examples of connecting ideas or sequencing:

A in short
B as a consequence
C for example
D to begin with
E as a result
we need to consider the long-term implications of the decision to increase our dependence on gas-fired energy production. let us say we do go ahead. In this case we decrease our reliance on coal. we reduce costs because we have understood that gas is cheaper than coal. In fact, the case is not proven, especially because we have no way of knowing what the relative costs of coal and gas will be in ten years’ time. However, as a rule gas is much cleaner than coal and this is a genuine advantage. of these two advantages, gas looks a better option. In other words, it is cheaper and cleaner so it is better. In that case we don’t need to hesitate. Naturally, nothing is so simple. cost is an unknown factor. We don’t know which would be the most economical choice.

Task 3. Make full sentences by matching the correct halves.

16. Before we come to the end, a) there are four major features.
17. I’d be glad to answer b) we start the discussion now.
18. To summarize, c) by quoting a well-known saying.
19. We can conclude d) we should reduce our costs.
20. In my opinion, e) any questions now.
21. I’d like to suggest f) I’d like to thank you for your participation.

Task 4. Match the expression on the left with an expression on the right which means approximately the same.

22) subsequently a) that is to say
23) in other words b) instead
24) above all c) splits into
25) furthermore d) then
26) alternatively e) most important
27) divides into f) in addition
Task 5. Complete the table with the proper words and phrases for linking the points of a presentation.

<table>
<thead>
<tr>
<th></th>
<th>A Comparing</th>
<th>B Contrasting</th>
<th>C Contradicting</th>
<th>D Concluding</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>in the same way</td>
<td>similarly</td>
<td>in fact</td>
<td>in conclusion</td>
</tr>
<tr>
<td>29</td>
<td>generally</td>
<td>But</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>to conclude</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>in brief</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>as a result</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>for instance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>especially</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>however</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>actually</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A | B | C | D
---|---|---|---
E | F | G | H | I

E Summarizing to sum up in short
F Generalizing usually as a rule
G Giving reasons/causes therefore so that’s why
H Giving examples for example such as

Task 6. Which word in the following groups of four is the “odd one out”?

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>rise</td>
<td>increase</td>
<td>climb</td>
<td>raise</td>
</tr>
<tr>
<td>38</td>
<td>expand</td>
<td>develop</td>
<td>shrink</td>
<td>grow</td>
</tr>
<tr>
<td>39</td>
<td>drop</td>
<td>fall</td>
<td>decline</td>
<td>peak</td>
</tr>
<tr>
<td>40</td>
<td>impressive</td>
<td>slight</td>
<td>substantial</td>
<td>considerable</td>
</tr>
<tr>
<td>41</td>
<td>dramatic</td>
<td>huge</td>
<td>sudden</td>
<td>slump</td>
</tr>
<tr>
<td>42</td>
<td>fluctuation</td>
<td>drop</td>
<td>reduction</td>
<td>collapse</td>
</tr>
</tbody>
</table>
Task 7. Which parts of the graph below do the following words refer to?

43 rise
44 level off
45 fluctuate
46 peak
47 recover
48 bottom out
49 fall

Task 8. A popular magazine conducted a survey about their readers' smoking habits. Here are the results:

<table>
<thead>
<tr>
<th>Cigarette smoking habits by gender</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all</td>
</tr>
<tr>
<td>20 + a day</td>
<td>11</td>
</tr>
<tr>
<td>10-19 a day</td>
<td>11</td>
</tr>
<tr>
<td>less than 10 a</td>
<td>8</td>
</tr>
<tr>
<td>given up</td>
<td>27</td>
</tr>
<tr>
<td>never smoked</td>
<td>43</td>
</tr>
</tbody>
</table>

Complete the following sentences which describe some of the facts in the table.

50 ..................................... the readers have never smoked.

51 Almost a third of the readers ......................... but have now given up.
52 A .................................. of readers smoke less than ten cigarettes a day.
53 Generally speaking, men are ........................ than women.
54 .......................................of readers who smoke more than twenty a day is quite small, at 11 per cent overall.
55 The figures for the 20-plus group and the 10-19 group ............

Self-assessment
Task 9. Assess yourself using the keys given in Part II Self-study Resources.
**Indicative Reading**


7. Coal Age
Module 5

Communicating in Writing
Unit 1 Effective Writing

Focus on
- reflecting on experience of writing in English
- genres of writing
- style and language of writing
- techniques of writing
- important features and elements of writing

By the end of the unit you will:
- be aware of what makes an effective writing in English
- be aware of the most common text types
- be aware of the components of writing
- be able to use an appropriate style in writing
- be able to organise your writing properly

Lead-in
1. Read the following proverbs. What does each one mean? How do they relate to the topic of the unit? Exchange your ideas with the other students.

   Never write what you dare not sign

   Never too much of a good thing

Brainstorming
2. Think about your experience of writing in English at the university. Complete the mind-map below answering the following questions:
   - What do you write?
   - Who do you write to?
   - Why do you write? What is the purpose of your writing?

Some examples have been given for you.
Discussion and Presentation

3. **Group-work.** Compare your mind-map with your partners’.

4. Brainstorm for a list of written text types you expect to encounter in your professional environment. Then share your ideas with the other students.

5. Match the text types (1-10) with their definitions (A-J). Exchange and discuss your arguments with a partner.
1. Form A a document giving details of your qualifications and the jobs you have had in the past that you send to someone when you are applying for a job

2. Abstract B an official document on a particular subject, often made by a group of people after studying a problem or situation carefully

3. Message C a short account of a research paper placed before it

4. Notes D an official document that has spaces where you can put in information

5. Summary E a written or printed message that is usually put in an envelope and sent by mail

6. Instruction F a piece of written or spoken information that you send to someone, especially when you cannot speak to them directly

7. Conference abstract G a short account of something that gives only the most important information and not all the details

8. Report H details from something such as a lecture or a book that you write down so that you can remember them

9. Curriculum vitae I printed information explaining how to use or do something:

10 Business letter J a short account of a conference paper

6. Find the right answers to 5 in Self-assessment Part II Module 5.

Reading texts and Analysing text-types

7. You are going to read sample texts (0-4). Choose the type of the text from the list A-E for each of the samples. Highlight the key words identifying the text type. There is an example at the beginning.
Following the inquest into the death of Mr Rod Fiechtner at the Century Drilling Rig at Myall Creek near Surat, the report by the Coroner made a number of recommendations which closely mirrored submissions made by this Department and the industry. It is now important that these recommendations be implemented.

In accordance with the provisions of Section 708B of the *Petroleum and Gas (Production and Safety) Act 2004*, I therefore issue this Safety Instruction for implementation by the above date. It is the intention to have these requirements made into a Safety Requirement under the *Petroleum and Gas (Production and Safety) Regulation 2004* before the expiry date.

1. All operators of drilling and drilling related operating plant (operators) are to provide, at a safe distance from the plant, a remote emergency shutdown facility for any device which may be a source of ignition within an area of potential hazard. A test program is to be developed and implemented to test this facility at regular intervals.

2. A Standard Operating Procedure (SOP) for the tasks and risks associated with personnel landing the tubing hanger and securing the tie down bolts is to be developed and implemented by operators in conjunction with suppliers of equipment and other interested parties.

3. The above SOP is to require that, prior to the installation of the B Section, a trial run is to be conducted for the installation of the hanger and confirmation of tie down bolt extension lengths (that length of bolt protruding from the flange when bolts are correctly secured).
4. The SOP is to provide for the installation to be verified by suitably qualified persons.
5. All relevant personnel are to be trained as to the correct procedures to be used and be made aware of the consequences of possible equipment failure arising from a failure to properly land and/or secure the hanger.
6. Where the task of landing the production tubing hanger and securing the tie down bolts is being undertaken by a crew that is not familiar with the task a Job Safety Analysis (JSA) must first be conducted and the operation directly supervised by a suitably qualified and experienced person.
7. Operators are to ensure that manufacturers of wellhead equipment provide detailed procedures to be used to land the production tubing hanger and to secure the hanger tie down bolts.
8. Manufacturers of relevant wellhead equipment are required to incorporate into the procedure and design a positive method which will indicate the position of the production tubing hanger tie down bolts relative to the fully secured position.
9. The Site Safety Manager must take into account any differing levels of experience of drilling crew personnel and tailor the level and extent of supervision and crosschecking accordingly.
10. During any live well completion, the well bore pressure is to be kept as low as reasonably practical by the use of a flare line off the tubing spool until the production tubing hanger is secured and the well head installed.
11. A decision not to use a flare line should be the subject of a prior risk assessment by field operational personnel and the written approval by the Site Safety Managers of the drilling rig and of the lease.
12. Where no SOP exists for a non-routine task, or where a change in circumstances occurs which will affect an existing SOP, a JSA is to be conducted prior to the activity taking place, to assess risks resulting from the new task or new risks arising from the change in circumstances.
13. Operators are to provide Risk Assessment and JSA training to all relevant personnel.
14. Petroleum Tenure Holders conducting drilling and other drilling related activities are to provide JSA and Risk Assessment training to senior drilling operations personnel.

15. Safety Management Plans for drilling and other drilling related operating plant are to contain specific details of the identification and control of all sources of ignition, including those arising from electrical equipment and wiring, static electricity and lightning as well as frictional sources and hot surfaces.

John M Fleming
Chief Inspector, Petroleum & Gas

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**FUTURE INVENTIONS**

Write an article for our magazine describing an invention you would like to see in the future and explaining how it would improve our lives.

The best articles will be published in our magazine.

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**Serious Accident at a Conveyor Idler**

**Safety Circular**

A belt fitter sustained serious injuries while removing a belt trailer when his arm was drawn into the nip point between the belt and a top idler of a 1.37m wide (54") conveyor. He was unable to free himself and was fortunate that others nearby were able to stop the conveyor. Once the belt was stopped others had to use pull-lifts to free him.

Had there been no-one working nearby he could easily have been killed. This accident clearly shows the hazard that can exist at idlers on heavy-duty conveyors and the potential risks to people working on them.

Regulation 22 of The Provision and Use of Work Equipment Regulations 1998 requires owners to take appropriate measures to ensure that maintenance operations can be carried out while the equipment is shut down unless the work can be carried
out without risk, or other measures can be taken for the protection of people maintaining work equipment.

In the health and safety documents required by regulation 4 of the Mines Miscellaneous Health and Safety Provisions Regulations 1995, owners must therefore identify the risks posed by this hazard and demonstrate that adequate measures have been taken to ensure safety including, where necessary, a requirement for conveyors to be shut down for maintenance operations. In particular owners must ensure that managers draw up written rules and safety instructions on the safety of conveyor maintenance personnel, and ensure that there are procedures to ensure that these rules are carried into effect.

Where there are foreseeable significant risks to people passing conveyors, for instance if it was likely that someone walking alongside a conveyor could stumble and fall and be drawn into a dangerous nip point, then that nip point should be guarded.

Managers need to ensure that:

- workers are aware that many unguarded conveyor idlers are hazardous and can present a severe risk;
- training emphasizes that working on a moving conveyor must not be permitted except in exceptional circumstances.

Inspectors will be reviewing the arrangements in place at mines to ensure that the lessons learned from this accident are properly implemented.

Yours sincerely

S P Wing
HM Principal District Inspector of Mines

Opportunities

Job Vacancy: Operational Risk Advisor
International Mining Company
Location: Salt Lake City, UT Serving Global Operations
Reports To: Senior Advisor Operational Risk & Change Management

Purpose

The position deals with operational, project, technical, safety, health, environmental, and security risk and change management. The individual will participate as a
member of the Corporate Safety and Health team in the planning, development, and implementation of Corporate Risk and Change Management. As a corporate adviser, the position shall support the accumulation of knowledge and consistent application of risk and change management processes across all facilities including conceptual design, engineering, construction, operations and closure.

The position will provide facilitation and training for team based risk assessment sessions, evaluation of risk and opportunities, and include a process of identification of controls to ensure a safe, healthy, productive and environmentally sound workplace.

Organization

The Operational Risk Advisor reports to the Senior Advisor Operational Risk & Change Management. There are no direct reports to this position. Peers to the position include a Corporate Industrial Hygienist and three Corporate Safety and Health Managers. The position will collaborate with all levels in the organization including management, supervisory and worker levels.

Qualifications

- A B.S. degree in Mining Engineering, Science or closely related discipline is required.
- A minimum of 8 years of progressive operational roles is required.
- Experience with engineering, metallurgy or mining background is required.
- Experience with underground mining is desirable.
- Fundamental knowledge of Risk and Change Management processes is mandatory.
- Proven history of excellent facilitation and presentation skills is preferred.
- Extensive involvement in risk assessments of operational practices and workplaces.
- Willingness to travel extensively, 70% of the time, globally is required.
- Personal history must allow for issue of entry visas to a variety of countries.

Contact

Joelene Whittaker
Silvester & Company
(208) 475-4636
jw@silvesco.com
Kidd Mining Division should take such additional initiatives that ensure supervisors recognize the critical nature of process disruptions or unusual occurrences. Once detected, supervision should ensure an adequate plan is developed to control and rectify the situation. This plan should be developed in conjunction with workers, JOHSC representatives, and any other necessary outside resources. The plan must address the safety aspects of all tasks required to rectify the situation. The plan must be communicated to all workers involved in a group meeting held before work commences.

Kidd Mining Division should take such additional initiatives as required that will raise the level of awareness in all employees that ‘safe production’ is a core value. This initiative must result in workers recognizing the hazards associated with all tasks and result in a ‘continuous safety consciousness’ in all employees. This will be evidenced in the workplace by proper application of safety systems such as standards, procedures, and the 5-point safety system.

8. Find the right answers to 7 in **Self-assessment Part II Module 5.**

9. Think about the tone and degree of formality in writing. What are the main features of formal and informal style? Write them in the diagram on the opposite page.
10. *Group-work*. Compare your diagram with your partners’ and exchange your ideas with the other students.

11. Read the text given on the following page. Using the guidelines from the text make necessary changes into your diagram from 9.
For You to Know: Formal and Informal Style

How formal your writing needs to be depends on the target reader and the reason for writing. It is very important to maintain the same level of formality throughout your writing.

You should not mix very formal expressions with very informal ones. Study the guidelines.

Formal style includes:

- sophisticated vocabulary
- impersonal tone
- more frequent use of the passive voice
- complex grammatical constructions
- formal linking devices
- advanced vocabulary

Informal style includes:

- colloquial (spoken) and idiomatic English
- personal tone/direct address
- less frequent use of the passive voice
- less complex grammatical constructions
- simple linking devices
- less advanced vocabulary
- contractions
12. Look at the formal expressions (1-10) on the left (A). Match them with their informal equivalents (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 I am writing</td>
<td>a say how much I disagree</td>
</tr>
<tr>
<td>2 such a large number of</td>
<td>b chance</td>
</tr>
<tr>
<td>3 I/we find it difficult to believe that</td>
<td>c I thought I’d drop you a line</td>
</tr>
<tr>
<td>4 express my disagreement</td>
<td>d everyone knows</td>
</tr>
<tr>
<td>5 is seriously under-funded</td>
<td>e which was called</td>
</tr>
<tr>
<td>6 inaccurate</td>
<td>f so many</td>
</tr>
<tr>
<td>7 a significant percentage</td>
<td>g it can’t be right that</td>
</tr>
<tr>
<td>8 it is a well-known fact</td>
<td>h wrong</td>
</tr>
<tr>
<td>9 opportunity</td>
<td>i doesn’t have enough money</td>
</tr>
<tr>
<td>10 entitled</td>
<td>j a lot of people</td>
</tr>
</tbody>
</table>

13. Find the right answers to 12 in **Self-assessment Part II Module 5**.

**Follow-up**

14. *Whole-group work.* Read the sentences below and say whether they are formal or informal. Then suggest who the target reader might be.

1 It is a well-known fact that schools are seriously under-funded.
2 In the article which was called “A National Disgrace”, the information was wrong.
3 A lot of students would study abroad if they had the chance.
4 It can’t be right that so many people believe this.
5 I am writing to express my disagreement with the opinions in last night’s “Made in Ukraine” on ICTV.

15. Rewrite the sentences in a different style using phrases from 9 and making other necessary changes.

16. Discuss the effects that the different styles would have on the readers.
Unit 2 Writing a CV

Focus on
• reflecting on experience of writing a CV
• structuring a CV
• vocabulary typical for a CV

By the end of the unit you will be aware of:
• what makes an effective CV
• structure of a CV
• skills necessary for your future job
• importance of a CV

Lead-in
1. Answer the following questions.
   o Do you know what ‘CV’ stands for?
   o Have you ever read any CV or written it yourself?
   o Why does someone need to write a CV?

Speaking and Reading
2. Read a definition of a CV and check your answers to the questions in 1.

   CV (curriculum vitae) BrE is a document that describes your education and the jobs you have done, used when you are trying to get a new job; resume AmE.

   (From Longman Dictionary of Contemporary English)

3. Read the text on the opposite page and find the answers to the following questions.
   1. What is important to remember when writing your CV?
   2. How long should the ideal CV be?
For You to Know

How to write an effective CV

- Make sure your skills, interests and work experience match the job exactly.
- Put your education and career in reverse order (the most recent first).
- Don't leave unexplained gaps in your career.
- Don't lie, or you may be caught out in the interview. Go back through your jobs and assignments to identify tasks, responsibilities and particularly accomplishments.
- Use positive language to talk about your achievements and skills: expressions like 'successfully co-ordinated' and 'took responsibility for'.
- Give names, addresses, phone numbers and e-mail addresses of at least two people who can give a reference, i.e. say that you were a good employee or student.
- Print onto one side of a single sheet of good-quality A4 paper.

4. Pair-work. Compare your answers with a partner.
5. Whole-group work. Decide whether you agree with the advice in the text.
6. **Group-work.** Read the job advertisement and the CV and discuss these questions.

- Who placed the job advertisement in the newspaper?
- What job is being offered? In what branch of industry?
- What is required for the job?
- Where will the successful candidate work?
- Does the CV follow the advice in the text?
- How could it be improved?
- Would Dmytro Romanenko be a good candidate for this job?

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**KRASNOARMEYSKAYA ZAPADNAYA No.1**

**MINING ENGINEER**

Due to setting into operation of a new mining horizon at the mine “Krasnoarmeyskaya Zapadnaya No. 1”, the best mine in Ukraine, opportunities have arisen for a number of mining engineers.

The mine is looking for young, ambitious and qualified engineers to develop new mining technologies.

If you are a creative and motivated mining engineer with a proven background in mining, contact personnel department for further details. Time for contacts: Mon. – Fri. 8 a.m. – 5 p.m., tel. 8(06234)03505.
CURRICULUM VITAE

PERSONAL DETAILS

Name                                      Dmytro Romanenko
Date of Birth                             30 March 1982
Nationality                               Ukrainian
Address                                   36 Gagarin Street
                                           Sverdlovsk
                                           Lugansk region, Ukraine
Telephone                                 8 050 3568974

EDUCATION

2005 – 2006                               Donetsk National Technical University, Master of Science in Mining Engineering
2001 – 2005                               National Mining University, Dnipropetrovsk, Bachelor of Science in Mining Engineering
1999 – 2001                               Krasnodon Mining College, junior engineer in mining
1989 - 1999                               Secondary School No. 6, Sverdlovsk

PROFESSIONAL EXPERIENCE

2006 - 2008                               Yubileinaya mine, Pavlogradugol joint stock company, mining job foremaster
Summer 2005                               Three-month industrial training at Centrosouz mine, Sverdlovantracit
Summer 2004                               Three-month industrial training at Centrosouz mine, Sverdlovantracit
Summer 2003                               Three-month industrial training at Ubileynay mine, Pavlogradugol joint stock company
PROFESSIONAL QUALITIES

• Skillful at developing and motivating production and sinking crews to achieve their objectives.
• A highly experienced engineer with proven managerial skills.
• Able to work on own initiative and as part of a team
• Excellent communication skills
• Professional. Good organisational skills and has a good eye for detail

ADDITIONAL SKILLS and INTERESTS

• Driver’s licence (motorcycle, car and lorry)
• IBM PC user
• Sports: swimming, soccer, ice hockey, chess

Vocabulary focus

7. Match the phrases in italics in the CV with the following definitions.

Example: pays attention to detail

has a good eye for detail

1 good at talking to people
2 has lots of experience
3 encouraging
4 has a mature, responsible attitude
5 can show that he has worked successfully in management
6 is organized

8. Put each of the phrases above into the following categories.

• Expressions to describe yourself
• Expressions to describe your work skills
**Grammar Reference:**

Uncountable Nouns.

Articles with Proper Nouns.

**Follow-up**

9. *Group-work*. Discuss what requirements or skills are necessary for your future job. List them under the following headings: *Professional Qualities*, *Additional Skills* and *Interests*.

**WORKSHEET 5.1**

<table>
<thead>
<tr>
<th>Professional Qualities</th>
<th>Additional Skills</th>
<th>Interests</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

10. *Whole-group work*. Share and discuss this information with your groupmates.

11. Tick in the worksheet the skills that you would like to have. Think about how you’re going to develop them.
Unit 3 Letter of Application

Focus on

• structuring a letter of application
• analysing a letter of application
• writing a letter of application

By the end of the unit you will be aware of:

• the structure of a letter of application
• what makes a good letter of application

and have practised in writing a letter of application

Lead-in

1. Read the following passage about applying for a job and complete it with missing words or word-combinations.

If a person is interested in the job or position advertised in the appointed page of a newspaper, s/he sends a __________ _____ containing details of education and experience and letter of application.

The letter of application (also called the covering letter) can be as important as the CV in that it often provides the _____ direct contact between a candidate and an employer. If this letter is not well _______ and presented, it will make a poor impression.

2. Whole-group work. Discuss and come to some conclusion about the missing words.

3. Find the right answers to 1 in Self-assessment Part II Self-study Resources.
Structuring a letter of application

4. The letter of application normally contains three or more paragraphs. Put the main ideas of each paragraph into the right order.

A indicate your willingness to attend an interview (and possibly state when you would be free to attend);
B say why you are interested in the position and relate your interests to those of the company;
C show what you can contribute to the job by highlighting your most relevant skills and experience;
D confirm that you wish to apply and say where you learned about the job.

5. Pair-work. Check your answer with a partner, then with the right ones in Self-assessment Part II Self-study Resources.

6. Complete the letter of application on the next page written by Dmytro Romanenko and fill it in with the following verbs:

contact discuss employed welcome involved
apply enjoy notice advertised matches

7. Whole-group work. Check and discuss the answers with your groupmates.
Dear Mr Scott,

I am writing to (1) ............... for the position of a mining engineer which was (2) ............... last week in the Kent Weekly.

Although I am presently (3) ................ by a small coal-mining company, it has always been my intention to work in a big corporation. I would particularly (4) ............... the chance to work for your company and as you will (5) ............... on my enclosed curriculum vitae, the job you are offering (6) ............... both my personal and professional interests.

My work experience has familiarized me with many of the challenges (7) ............... in mining today. I am sure that this, together with my good knowledge of information and communication technologies, would be extremely relevant to the position. Moreover, I am fluent in English and would be definitely (8) ............... working in an English-speaking environment.

I would be pleased to (9) ............... my curriculum vitae with you in more detail at an interview. In the meanwhile, please do not hesitate to (10) ............... me if you require further information.

I look forward to hearing from you.

Yours sincerely,

Dmytro Romanenko
Reading and Analysing a letter of application

8. Read the job advertisement in an international magazine. Answer the questions given below.

**International Adventure Course**

Do you speak English?

Would you like to meet people from other countries?

We are looking for people of all ages to work on an international adventure course in Canada helping to organize sports and social activities for an international group of young people aged from 9 – 12

| You need to be available for at least 4 weeks between July-September. Travel, food and accommodation costs will be covered. | If you are interested in applying, write telling us about yourself and saying why you think you would be a suitable person for the job. |

1. What does the job involve?
2. The task includes two parts. What are they?
3. The following things might all make an applicant a suitable person for the job. Which of them do you think would be essential? Tick them. What else would be essential?

- able to speak English
- interested in sport
- experience of being with young people
- interested in travel
- enjoys being with people
- comes from a big family
- can sing and play the guitar
- first aid qualification
- clean driving license

10. Read the following letter. Do you think it’s a good letter of application for the job advertised? Why? / Why not?

   Dear Sir or Madam
   I write about your advertisement in the newspaper for the International Adventure Course.
   I’m the oldest of a family of five children and I’ve got lots of young cousins. I’d really enjoy the chance to use my English in Canada and to work in the international environment.
   I’m available between July 13 and September 20. I’m eighteen years old and live in Spain. I just finished my secondary education and in October I’ll be starting a university course in Business Administration. I’ve already studied English for six years.

   I hope you’ll write soon.
   Yours faithfully
   Antonia

11. Read the letter again and answer these questions.
   1. Does the letter begin and end appropriately?
   2. Does it include all the necessary information?
   3. Is the information organized into logical paragraphs?
   4. Is the style appropriate?
   5. Are there appropriate fixed phrases for a letter of application?
   6. Is the spelling and punctuation accurate?
   7. Is the grammar accurate?
   8. Does it have the correct number of words?
   9. Would the reader want to give Antonia an interview?
12. **Group-work.** Compare and explain your answers.

   *Example:*
   
   1. The letter begins ‘Dear Sir or Madam’ and ends ‘Yours faithfully’.
      
      *That’s correct because we don’t know who we’re writing to.*

   **Grammar Reference:**

   Present Simple, Continuous and Perfect Tenses.

---

**Drafting a letter of application**

13. Plan your own letter of application by answering the following questions.

   1. How many paragraphs will you write?
   2. What information will go in each paragraph?

**Writing**

14. Write your letter in an appropriate formal style.

**Follow-up**

15. When you have finished, check your letter, using the points in **11**.
Unit 4 Formal Correspondence

Focus on

- starting a business letter
- ending a business letter
- phrases used in business correspondence
- writing a business letter

By the end of the unit you will:

- be aware of functional phrases used in formal correspondence
- understand how to organise a business letter
- have practiced in writing a formal letter

Lead-in

1. Discuss the following questions.
   1. How often do you write in your native language / in English?
   2. What do you usually write?
   3. Have you ever written any formal letter, e.g. a letter to a bank manager, a letter of complaint?
   4. What differences can you find between formal correspondence, e.g. a formal letter, and informal messages, e.g. an email to a friend?

Organising a business letter

2. Choose two correct ways to start a business letter from Column A.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dear Mr Peter,</td>
<td>Lots of love,</td>
</tr>
<tr>
<td>Dear Mr Peter</td>
<td>Yours,</td>
</tr>
<tr>
<td>Dear Mr Maggs,</td>
<td>Best wishes,</td>
</tr>
<tr>
<td>Dear Mr or Mrs,</td>
<td>Yours sincerely,</td>
</tr>
<tr>
<td>Dear Sir or Madame,</td>
<td>Your friend,</td>
</tr>
<tr>
<td>Dear Sir or Madam,</td>
<td>Yours faithfully,</td>
</tr>
</tbody>
</table>
3. Match the ways of starting a business letter with appropriate endings from Column B.
4. **Pair-work.** Compare your answers with a partner.
5. **Whole-group work.** Do you know any other ways of starting or ending business letters?

**Language Use**
6. Below are some examples of phrases often used in business letters. Complete the sentences with the words in the box.

`apply  unfortunately  hearing  response  complain
16^{th} \text{May}  \text{confirm}  \text{enclose}  \text{grateful}  \text{pleased}`

a) Thank you for your letter of the ___________ which I received this morning.

b) I would be ___________ if you could send me some information about summer courses at your school.

c) I ___________ my curriculum vitae for your attention.

d) ___________ I am not available on the date you suggest in your letter.

e) I would be ___________ to attend an interview at any time convenient to you.

f) I am writing to ___________ about the damage caused by your company when they delivered a sofa to my home last week.

g) We look forward to ___________ from you as soon as possible.

h) We would be grateful if you could ___________ your reservation in writing.

i) I am writing in ___________ to your advertisement in *The Guardian*.

j) I would like to ___________ for the position of IT assistant in my school.
7. Match each of the phrases (a–j) from the previous page to one of the functions (1–9) below. There are two phrases for function 3.

1. Asking for information   6. Giving good news
2. Applying for a job   7. Complaining
3. Beginning a letter   8. Saying that you are sending something
4. Closing a letter   with the letter
5. Giving bad news   9. Asking for confirmation

Grammar Reference:
Conditional Sentences.

Writing a business letter
8. Write a letter to Machine Building Corporation, a manufacturing company producing spare parts for mining equipment and ask them to send you all the information about the spare parts you need.

Follow-up
9. Exchange your letter with another student, read and answer it. You may consult Part II Self-study Resources where you can find how to structure a business letter and samples of letters.
Unit 5 Writing a Report

Focus on
- analysing the problems
- brainstorming the ideas for solving the problems
- understanding the task for writing a report
- main features and elements of a report
- layout of a report
- language style of a report

By the end of the unit you will be able to:
- analyse the situation
- discuss the ideas for solving the problems
- work out the suggestions
- plan a report
- structure a report

Lead-in
1. Pair-work. Discuss the following questions:
   - Which form of public transport do you prefer/use? What does it depend on?
   - What kind of transport problems are there where you live?
2. Whole-group discussion. Share the results of your pair-work with the whole group and identify the most serious transport problems typical for your town/city.

Brainstorming the ideas
3. Group-work. In small groups study the list of problems relating to the city transport given on the following page. Choose five most serious for your place of living.
Transport problems of a large city:

- too many cars
- traffic jams
- not enough car parks
- narrow roads
- on-street parking
- unreliable public transport
- air pollution
- too much noise

4. Brainstorm ideas for solving these problems. Discuss the advantages and disadvantages of each suggestion. Use the following phrases to persuade your groupmates.

1 I'm convinced there are ...
2 I really think we've got to ...
3 Surely you must agree that ...
4 I think it’s essential to persuade people to use ...
5 I strongly believe we need to sort out the main problem first ...
6 Don’t you think that ...
7 There’s no doubt in my mind that ...
8 I’m also very much in favour of ...
9 You can’t argue that it’s the best solution ...

5. Compare your ideas with another group and present the five best to the class. Note them down.
Understanding the task
6. Read the task below and answer the questions that follow.

Your city is experiencing serious transport problems. It is difficult for people to get to where they work or study. Public transport is not very good. A committee has been set up by the city council to analyse the problems and to give recommendations for improving the traffic flow in the city. You are a member the committee and have been asked to write a report for the city council.

1. How many parts are there in the task?
2. Decide how personal or informal your style should be. Remember your role and think about the target reader.
3. What are the features of a good report?

Planning the report
7. Make notes under the headings in the worksheet below.

WORKSHEET 5. 2

<table>
<thead>
<tr>
<th>Transport problem</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. Match the pieces of advice on the right to the paragraphs on the left. Some go with more than one paragraph.

<table>
<thead>
<tr>
<th>Paragraphs</th>
<th>Pieces of advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Introducing the report</td>
<td>a Focus on the main points.</td>
</tr>
<tr>
<td>2 Describing the first problem</td>
<td>b State the purpose of the report.</td>
</tr>
<tr>
<td>3 Describing the second problem</td>
<td>c Give a clear summary of the situation.</td>
</tr>
<tr>
<td>4 Summarising and recommending</td>
<td>d Describe how you got the information.</td>
</tr>
<tr>
<td></td>
<td>e Give only relevant information.</td>
</tr>
<tr>
<td></td>
<td>f Give just one or two recommendations.</td>
</tr>
<tr>
<td></td>
<td>g Give the facts briefly and clearly without strong personal opinions.</td>
</tr>
</tbody>
</table>

9. Think of the subject heading for your report and a suitable heading for each paragraph. You could use numbers or bullet points within a paragraph to make the points clearer. The answers to these questions will help you to decide what to put in the report and what style to write it in:

Who is your audience? Who are you writing for?
What do they know already?
What do they need to know?
What do they want to know?
Language and content of the report
10. Write your report using the pieces of advice on the left and the phrases on the right.

Report on Proposed Measures …

Introduction
Use headings. The purpose of this report is …
State the aim of the report I have discussed the issue with …
and where you got the information.

Advantages
Quote in an impersonal way. Use a clear, neutral style. All those interviewed believe that …
According to …

Disadvantages
Balance the positive and negative points fairly. Some of the people are concerned that …
Listing/Numbering points can make it easier to read. 1 there would be insufficient …
2 the visitors might be …
3 some people cannot afford …

Generalise.

Conclusions and recommendations
Only give the recommendations at the end. On the whole everyone …
The most realistic solution is …

Follow-up
11. Pair-work. Exchange your report with your partner’s. Read the report carefully and analyse it taking into account assessment criteria given on the following page.
Possible assessment criteria

Here are some points which various tutors have suggested they look for in a report.

- Correct report format with appropriate headings. Material allocated correctly to the headings.
- Your approach to your research. Your ability to define clearly the problem to be tackled, or the purpose of the work. A clear statement of the topic/problem.
- Your ability to interpret work by others, to make personal observations, or to analyse data, and draw conclusions.
- The accuracy with which information has been recorded and the clarity with which it is presented.
- Appropriate and sufficient collection of data.

Grammar Reference:

Modals for advisability and necessity.
Unit 6 Writing Technical Reports

**Focus on**

- reflecting on experience of writing technical reports
- understanding the importance of writing technical reports
- main features and elements of a technical report
- format of a technical report

**By the end of the unit you will be aware of:**

- what makes an effective technical report
- the major sections of a technical engineering report
- techniques of writing a technical report
- the main features and elements of a detailed technical report

**Lead-in**

1. *Pair-work.* Discuss the following questions:
   - Do you have any experience in reading and writing technical reports? If so, what sort of reports were they?
   - What was the purpose of writing the reports?

2. Exchange and discuss the results of your work with the other pair.

**Reading and Speaking**

3. Read the text given on the following page and find the answers to the following questions.
   - Why is it important for an engineering student to develop good written and communication skills?
   - What types of reports are engineers required to write?
As an engineering student you need to develop good written and communication skills. During the next four or five years at the University, you will learn how to express your thoughts, present a concept for a product or a service and engineering analysis of a problem and its solution, or show your findings from experimental work. Moreover, you will learn how to communicate design ideas by means of engineering drawings or computer-aided modeling techniques. Starting right now, it is important to understand that the ability to communicate your solution to a problem is as important as the solution itself. You may spend months on a project, but if you cannot effectively communicate to others, the results of all your efforts may not be understood and appreciated. Most engineers are required to write reports. These reports might be lengthy, detailed, technical reports containing charts, graphs, and engineering drawings, they may take the form of a brief memorandum or executive summary. Some of the more common forms of engineering communication are explained briefly next.

4. **Whole-group work.** Compare the information from the text with your ideas from 1. Comment on the importance of writing technical reports for engineers.

---

**Determining the types of engineering reports**

5. **Group-work.** Brainstorm the types of technical reports you will be writing in your academic and professional environment. Exchange your ideas with the other group.

6. **Pair-work.** Match the report types (1 - 5) with their definitions (A - E) and then discuss their main features with your partner.
1. **Homework Presentation**

   This report is a means of communicating to people in top management positions, such as a vice president of a company, the findings of a detailed study or a proposal. It must be brief and concise. It is generally no more than a few pages long. In the report, references may be made to more comprehensive reports so that readers can obtain additional information if they so desire.

2. **Progress Report**

   This report is yet another way of conveying information in a brief way to interested individuals. Generally, it is under two pages in length. The header of the report contains information such as the date, who the report is from, to whom it is being sent, and a subject line. This is followed by the main body.

3. **Executive Summary**

   Engineering paper is specially formatted for use by engineers and engineering students. The paper has three cells on the top that may be used to convey such information as course number, assignment due date, and your name. A given problem may be divided into a "Given" section, a "Find" section, and a "Solution" section.

4. **Short Memos**

   The aim of the report is to communicate the results of your project work or experimental investigations. It generally contains a set of typical components.

5. **Detailed Technical Report**

   These reports are means of communicating to others in an organization or to the sponsors of a project how much progress has been made and which of the main objectives of the project have been achieved to date. Based on the total time period required for a project, progress reports may be written for a period of a week, a month, several months, or a year. The format of the report may be dictated by a manager in an organization or by the project's sponsors.
Structuring a technical report

7. Whole-group work. Detailed technical reports dealing with experimental investigations generally contain typical components which are given in the box below. Give your ideas as for the importance of the items and put them into the logical order. Explain your points of view by using phrases:

I believe...

To my mind..

I think...

In my opinion...

A  Theory and Analysis
B  Conclusions and Recommendations
C  Apparatus and Experimental Procedures
D  Appendix
E  Abstract
F  References
G  Objectives
H  Data and Results
I  Title
J  Discussion of the Results

Reading and Discussion

8. Pair-work. Read the information on the opposite page. Do you agree with it? Why? Why not? Give your own ideas about strategies of writing a technical report and discuss them with the partner.
For You to Know: **Tips for Writing Reports**

It is not sensible to leave all your writing until the end. There is always the possibility that it will take much longer than you anticipate and you will not have enough time. It is wise to begin writing up some aspects of your research as you go along. Remember that you do not have to write your report in the order that it will be read. Often it is easier to start with the method section. Leave the introduction and the abstract to last. The use of a word processor makes it very straightforward to modify and rearrange what you have written as your research progresses and your ideas change. The very process of writing will help your ideas to develop. Last but by no means least, ask someone to proofread your work.

**Commenting on strategies of a report production**

9. *Whole-group work.* Think about stages of writing a technical report. What stages are most important? Which of them are most time consuming? Give your reasons.

10. Look at the following stages for writing a report. Analyse them and compare with your answers in 9.

Because a report conveys information, the stages to producing one should logically be organised around the information gathering stage.

**Stage 1:** Framing the issues and planning

**Stage 2:** Information gathering (Researching the Project)

**Stage 3:** Analysing the information

**Stage 4:** Writing the Report
Briefly, the sources you use will be determined by the aims and scope of your report. You may gather data yourself, for example through carrying out interviews or experiments. You will also be looking for relevant secondary data, information that someone else has gathered or produced and that you will find in, for example, books, journals, newspapers, and other reports. Ensure that the information you use is relevant and that you always reference its source.

Follow-up
11. Write ten tips for report production using your own experience.

12. Be ready to make a mini-presentation on framing the issues and planning your report writing. You may use functional phrases for giving an oral presentation given in *Part II Self-study Resources*. 
Unit 7 Writing a Summary

Focus on

• requirements for summaries
• summarizing and its main steps
• writing a summary

By the end of the unit you will:

• be aware of what a summary is
• be aware of the requirements for writing summaries
• understand the order for writing a summary
• have practiced in writing a summary

Lead-in

1. Answer the following questions.

• Have you ever written and/or read any summary (Ukr. розширена анотація, sometimes реферат)?
• What language was it written in?
• Can you describe its peculiarities?

Discussion

2. Group-work. Come up with a definition of a summary.

A summary is ...

3. Read the following definition of a summary and compare your definition with the given one.

A summary is a shortened version of a text aimed at giving the most important information of ideas of the text.

4. Comment on the differences between the two versions if any.
Discussing requirements for summaries

5. *Whole-group work.* Brainstorm what makes a good summary. Make a list of ideas.

6. Complete the statements with the requirements for writing a summary choosing the best alternative(s).
   1. It condenses the source text and offers a balanced coverage of the original.
      (a) *Concentrate upon* (b) *Avoid concentrating upon* information from the first paragraph of the original text or focus/focusing on interesting details.
   2. It is written in (a) your (b) writer’s own words.
   3. It (a) *does not evaluate* (b) *evaluates* the source text and is written in a generally neutral manner.
   4. The (a) *first* (b) *last* sentence of the summary contains the name of the author of a summarised text, its title, and the main idea.
   5. The summary uses (a) *a lot of* (b) *enough* supporting detail and transition device that show the logical relationship of the ideas.
   6. The summary is usually between (a) *two-thirds*, (b) *one-third* or (c) *one-fourth* of its length.

7. *Whole-group work.* Discuss your answers with your groupmates. Then check them with the right ones in *Self-assessment Part II Self-study Resources.*

8. Put the following steps for writing a summary in the best order.
   A. Write the first sentence of the summary with the name of the author of a summarized text, its title, and the main idea.
B. Read the text again highlighting with a marker important information in each section or taking notes. You may also write an outline of the test.

C. Go through the process again making appropriate changes if necessary.

D. Add appropriate linking words (logical connectors) to show the logical relationship of the ideas and to improve the flow of the summary.

E. Skim the original text and think about the author’s purpose and main idea of the text.

F. Decide what key details may be added to support the main point of the text and write them down.

G. Write a one-sentence summary of each section/part of the outline in your own words; avoid any evaluation or comments. Use the words and expressions synonymous to those used by the author of a summarized text.

H. Divide the text into sections, or, if it has subheadings, think about the idea and important information that each section contains.

9. Pair-work. Compare your answers with a partner. Make changes if necessary. Check your answers in **Self-assessment Part II Self-study Resources**.

Writing a summary

10. You are going to write a summary of the text “Energy from GHG emissions”. Before writing read the text paying attention to the important ideas discussed in the text.
Energy from GHG emissions

Converting coal mine ventilation air methane into a primary energy source - the first large-scale application

BHP Billiton Illawarra Coal, with the support of the Australian Greenhouse Office, has embarked on a major project to substantially reduce greenhouse gas (ghg) emissions from its West Cliff coal mine in the Illawarra region of New South Wales. The A$13 million West Cliff Ventilation Air Methane Project (WestVAMP) is the final step in proving a technology, first piloted at Illawarra Coal's Appin Colliery in 2001, capable of mitigating the bulk of the company's remaining greenhouse gas emissions, while producing electricity as a product.

BHP Billiton believes “this project is an example of how technology can play a key part in reducing greenhouse gas emissions. This technology has the potential to be used in other coal mines”.

WestVAMP will use 20% of West Cliff's available mine ventilation air to achieve a reduction in greenhouse gas emissions of 200,000 t/y C02-e. This is equivalent to producing enough electricity for 20,000 homes, or removing emissions from 45,000 cars from the environment each year.

President Illawarra Coal, Colin Bloomfield, said: "To date, the principal form of ghg mitigation has been through the consumption of mine methane drainage gas at the Appin and Tower power plants. These plants alone reduce Illawarra Coal's greenhouse gas emissions on average by 2.5 Mt/y C02-e. Further reductions in Illawarra Coal's greenhouse gas emissions can only be achieved through reduction of fugitive emissions of methane in the mine ventilation air."

Mr Bloomfield explained that methane has a global warming potential of over 20 times that of carbon dioxide. "Methane concentrations in mine ventilation air are typically less than 1.25% by volume which is not freely combustible with
conventional combustion technology. These and other factors have made reducing greenhouse emissions in mine ventilation a significant technical challenge," he said.

WestVAMP is based upon VOCSIDIZER technology developed by Swedish emission control specialist MEGTEC System AB. This converts low concentration methane to CO2 and water vapour through an oxidation process. High efficiency heat exchangers recover the large levels of thermal energy released to produce high quality steam. This steam is used to drive a conventional steam turbine.

Mr Bloomfield explained WestVAMP builds upon more than seven years of co-operation with MEGTEC. Besides cutting methane emissions, the project will generate 6 MW of electricity from the steam turbine which will be a source of energy to be used within the West Cliff Colliery. Commercial operation is planned for mid 2006.

VOCSIDIZER technology is an established method to clean air of low concentrations of VOC and other oxidisable pollutants, oxidising without generating NOx. More than 700 VOCSIDIZERS have been installed globally. As far back as 1994 the ability of the technology to ameliorate the effects of methane was demonstrated at a pilot plant in the UK. MEGTEC says concentrations as low as 0.1% are sufficient for the process-to be self sustaining without the addition of energy for oxidation.

Based on the conditions and needs of a specific mine, MEGTEC can design plants that convert the energy of the ventilation air methane into heat energy, electricity or cooling energy. VOCSIDIZER installations are modular by design and can therefore be relocated to a different ventilation shafts as needs dictate.

(From the Coal Magazine)

11. Write the summary of the text you have read following the steps in the summarising process given on the next page.
For You to Know

Some useful phrases to write a summary

The purpose of the first sentence in a summary is to acquaint the reader with the summarised text. The first sentence, therefore, includes the name of the author of a summarised text, its title, and the main idea. It uses the present tense. Below are some possible patterns that you may use in your summaries.

According to (name of the author) in his/her article (its title), … (main idea)

(Name of the author) in his/her article (its title) discusses … (main idea)

(Name of the author) in his/her article (its title) states/describes/explains/claims/argues … (main idea)

When continue, you may use the following patterns also adding some logical connectors (such as further, also, in addition, furthermore, moreover, etc.).

The author continues/goes on to say …

The author (further) states that …

The author (or his name) concludes that …
Grammar Reference:
Present Simple Active.

Peer evaluation
11. Pair-work. Compare your summary with your classroom partner's and ask him/her to evaluate it according to the requirements for summaries listed above.

Follow-up
12. Whole-group work. Come up with the class summary.
Unit 8 Structuring an Abstract

Focus on

• abstract and its definition
• functions and characteristics of an abstract
• phrases for writing an abstract
• writing an abstract

By the end of the unit you will be aware of:

• what an abstract is
• functions an abstract performs
• different characteristics of abstracts

and have practiced in writing abstracts using appropriate phrases

Lead-in

1. Answer the following questions.

1. Have you ever written any abstract (Ukr. анотація)?
2. Have you ever read any abstract? If yes, where?
3. Can you describe its peculiarities?

2. Pair-work. Share your ideas with a partner.

Discussion

3. Pair-work. Read the definition of an abstract and discuss with your partner the functions an abstract performs.

An abstract is a short account of a paper placed before it.
4. Compare your ideas with the following list of important functions that an abstract performs.

   **An abstract:**
   - serves as a short version of the paper, which provides the most important information;
   - helps the potential audience to decide whether to read the whole article or not;
   - prepares the reader for reading a full text by giving an idea of what to expect;
   - serves as a reference after the paper has been read.

5. You are going to write some abstracts. Before writing read the following:

   **For You to Know**
   The abstract has certain textual and linguistic characteristics. It:
   - consists of a single paragraph;
   - contains 4-10 full sentences;
   - tends to avoid the first person and to use passive voice (e.g., “The data are given about …”);
   - rarely uses negative sentences.

   **Grammar Reference:**
   Present Simple Passive.

6. Match the phrases given in the columns of the worksheet below that are recommended to be used while writing an abstract.
WORKSHEET 5.3

| The overview of … | examined. |
| The problem of … | is analysed. |
| The approach to … | are given. |
| The innovative technologies in mining | described. |

| It is | shown |
| stressed | that … . |
| pointed out |
| highlighted |

| Diagram of … | given. |
| Chart of … | shown. |
| Data about … | is analysed. |
| Trends of … | are explained. |
| Graphs of … | given. |
| Tables of … |

| Attention | made to … . |
| Attempts | is drawn about … . |
| Recommendations | are given to … . |
| Conclusions | given about … . |
Writing abstracts

7. Whole-group work. Use the summary you wrote at the previous class and write the abstract making the necessary changes. Remember to use the Passive Voice.

8. Use the summary you have written at home and write an abstract.


10. Read a part of the article “New Era Dawning in Russian Coal” from the *International Mining* and write an abstract of the text.

**New Era Dawning in Russian Coal**

*The push for lower-cost operations is driving mines to invest in 'Western' technology*

Coal resources in the Kuzbass are estimated to be 725,000 Mt. Hard coal predominates here, and coking coal accounts for half of the explored resources of the Kuzbass. While an estimated 43% of Kuznetsk coal deposits are found close to the surface at a depth of up to 3.5 m, high-quality coal is also found down to depths of 1,800 m. Kuznetsk coal reserves are generally low-ash coal with 0.1% to 0.5% sulphur content.

The first coal mines in the Kuzbass were constructed in 1907, although natural resource development in what would become modern-day Kemerovo Oblast -a region that is also rich with iron and copper ores - actually began in the early 17th century.

By 1937 the region had more than 200 mines with total capacity of about 1 Mt. Around this time, Russian factories began manufacturing coal mining machinery including shovel excavators and dump cars for opencast mining.

During WWII, the Kuzbass region witnessed intensive coal industry development as miners produced a steady supply of thermal and high quality coking coal in support of the war effort. From 1960 until about 1990, Russia invested heavily in its coal mining industry in the Kuzbass, combining mining science with domestic-manufactured mining machinery, as well as some imports of equipment.
During the 1980s, P&H Mining Equipment delivered 14 P&H 2300XP shovels to two Kuzbass mines - Sibirginskiy and Mezhdurechie, located in the southern part of the region. About the same time, Marion placed six Marion 201M shovels to Bachatskiy mine (now KRU Bachatskiy), located in east-central Kemerovo Region.

Moves to re-structure

In 1988, coal production in Russia peaked at 425.4 Mt, and then began to fall as the industry could not sustain investment in productive new equipment. In an effort to strengthen its coal industry, the government in 1992 announced a plan to transform the mines from state-owned operations into privatized enterprises.

Prior to the ensuing transformation process, the government fixed coal prices at 30% of real value, subsidizing the balance of the value. When railroad tariffs increased, Siberian coal suddenly became too expensive for consumers in European Russia to afford. At this point, the Russian Government decided to loosen prices and undertake a restructuring of its 250 underground mines and 80 open-pit mines that together produced about 290 Mt in 1993.

By 2001, total decommissioned coal mining capacity in Russia exceeded 173 Mt. Russia also recorded a capacity gain of 57.3 Mt from profitable and promising operations. Of Russia's unprofitable coal mines, 94% were closed and the coal mining workforce dropped from 820,000 to 330,000. Also in 2001, Russia's coal industry posted 6% profitability and the monthly average productivity increased from a low of 63 t/worker at the start of the restructuring process to 118 t. By 2003, Russian coal miners produced nearly 274 Mt - up 19 Mt from the prior year - as per-worker productivity rose to 139 t/worker. Per-worker productivity is believed to have approached or exceeded 150 t during 2004. Today, 95% of Russia's coal mining operations are private.

Follow-up

11. Pair-work. Compare your abstracts referring to the characteristics of abstracts given in 3.

12. Make all the necessary changes.
Unit 9 Writing an Abstract

Focus on
- predicting the information
- reading for gist and details
- writing an abstract
- evaluating abstracts

By the end of the unit you will:
- have practiced identifying main information and details in written texts
- be able to write abstracts in an appropriate style

Prediction
1. Look at the title of the article and the introduction. What do you think the article is going to be about?
2. Write down at least three questions you would like to find the answers to in the article.

An Exciting Era of Automation

Automation and control systems are shaping the mine of the future as the technology moves into generation three. David Binning reports.

Automation and control is emerging as a major competitive factor for mining companies as they struggle to cope with spiralling labour costs and dwindling resources. The current generation of miners is facing the prospect of having to drill deeper in more remote areas while also processing ore bodies of lower concentrations. This often means having to operate in more dangerous situations while creating more waste. The new generation of automation and control (A&C)
technologies is expected to play a key role in helping mining companies tackle these new challenges. "Automation and control for leading companies is seen as a major differentiator," says Bill Ellerton, mining expert with Siemens Ltd. A&C can give companies greater control over levels of granularity for what they're managing, and, as Ellerton points out, "smart mines are more competitive from the start".

**Remote Operation**

While automation is not a new concept in manufacturing, its arrival in the mining sector has been relatively recent. Automation applications for mining tend to be far more complex due to detailed process chains. "Rio Tinto says it will also have remote-controlled 'intelligent' trains, drills and trucks all operational by the end of 2008." Several new technologies define the 'smart' mine of today, including machines able to navigate underground and collect and transmit complex sample analysis data. Technologies for automated aerial mapping as well as explosives are important developments for the industry, alongside sophisticated new processing technologies to access mineral sands resources and uranium deposits. Once mining costs are reduced you can look at lower-grade resources – transforming uneconomic reserves into economic reserves. Mining giant Rio Tinto has coined the acronym Mining In the New Dimension (MIND) to describe its efforts in this area. "This means unambiguously going down the technology track towards better applications, including non-mining technology being introduced to mining," says company spokesman Gervase Greene. Rio Tinto Iron Ore will next year cut the ribbon on its state-of-the-art remote operations centre (ROC) in Perth in Western Australia. The ROC will employ around 320 people who will remotely manage mine operations in the Pilbara region 1,300km away. The company says it will also have remote-controlled "intelligent" trains, drills and trucks all operational by the end of 2008.

Important developments are occurring in the area of hard rock mining after ten years of research into new cutting and drilling tools. Albanese says that Rio intends to become the world leader in fully integrated and automated operations. This would lead to more efficient operations and tackle the rising costs of supporting workers at
remote sites while making the company a more appealing employer. Importantly, the company sees itself as way ahead of rival behemoth BHP Billiton, which has tried unsuccessfully to acquire Rio. Automated aircraft are also increasingly being considered to perform aerial mapping of mine operations. Underground loaders are being fitted with technology to allow mapping of tunnels in real time, while ore digging equipment is increasingly being fitted with sensors as a means of more quickly assessing mineral concentrations.

A key area of automation in mining is robotics. As Cunningham explains, much progress is being made in this area. "The evolution of robots in mining is evolving from a position of automating existing mining machines – such as drag lines and underground loaders – to the next stage of creating completely new machines which are designed to be a robot from the outset," he says. "For the first time new mines are being designed as an automated mine."

Science and research organisation the CSIRO is involved in a diverse range of automation projects: automated robot welding, sensing and navigation systems used in the automation of transport units in underground mines; laser beam automation to cut timber boards; automation systems for underground load haul dump units; and truck and shovel automation for open pit coal mines.

Progress is also being made in developing 'robotic' components for an automated explosives loading system, as well as systems for continuous calibration and checking for anomalies in machine operation. Such solutions will inevitably lead to more efficient mines and safer operating environments. "One of the key drivers for automation is protecting people from hazardous tasks and environments," says Cunningham. The CSIRO is working with Rio Tinto's aluminum business to develop automated vehicles capable of operating in conditions such as those with extreme heat, dust, bad weather and high magnetic fields. Safety is a prime factor.
Digging the Future

The mining industry has benefited greatly from improvements in computing and communications technology over the last few years, with mobile communications playing an increasingly important role in automation systems. The challenge now is how best to harness that technology. "Most vendors claim they have great hardware, but increasingly it's what you actually do with the hardware that matters," Ellerton adds. A key focus for the mining industry moving forward is tighter integration between increasingly clever equipment and back-end systems such as enterprise resource planning (ERP).

The issue of standardisation is expected to play a bigger part in the development and deployment of automation and control systems. One of the potential downsides of complex automation and control systems is that they could add significant new costs to mergers and acquisitions in cases where technologies are not compatible. The issue of standardisation is expected to play a bigger part in the development and deployment of automation and control systems. "The challenge for a lot of mining organisations is that many of them don't have standard operating environments at the automation and control level," Ellerton says. "Decisions are often made at the plant or individual mine site level."

For new mining companies, this will not be so much of a problem. Much has been made of the competitive advantages gained by miners in China and India because of their access to cheap labour. However, Siemens' Ellerton stresses that the real story lies in their early deployment of clever automated systems. "The message is that they [mining companies] cannot compete against cheap labour from China and India, but this is a distorted message. The reality is that facilities in China and India are being built with the latest automation and control equipment."

Reading for information

3. Scan the article to find answers to your questions.
4. **Group-work.** Did the article answer your questions? If not, discuss these issues with your groupmates. Later on, check your answers in reference books or/and with your subject teachers.

**Identifying main ideas**

5. Read each paragraph of the article to grasp the main idea.

   Does the article draw any conclusions? Does it give any recommendations?

6. **Pair-work.** Compare your information with a partner. Make changes if necessary.

   **Grammar Reference:**

   Active and Passive Voice.

   Plurals of Nouns.

**Writing abstracts**

7. Before you start writing your abstract, decide whether the article:

   - gives an overview
   - analyses/examines a problem
   - describes an approach
   - examines/analyses/describes some innovative technology(ies).

8. Write the abstract of the article in 500-600 letters in an appropriate style. Use the main ideas of the paragraphs you have identified. Remember to use the necessary phrases for generalising given in Unit 8.

**Follow-up**

9. **Pair-work.** Exchange your abstracts with a partner for evaluation.
10. Rewrite your abstracts, if necessary, making all the necessary changes in order to have proper abstracts.
Unit 10 Mediation

Focus on

- definition of mediation
- predicting the content
- identifying the content and relevance of a text to close study
- reading strategies
- identifying the passages challenging for translation

By the end of the unit you will be able to:

- recognise the genre and type of discourse
- get a general understanding of a text
- locate relevant details by scanning through a text
- interpret the content of a text

Lead-in

1. Answer the following questions:
   - Have you ever come across the word mediation?
   - Do you remember the situation and the meaning it was used in?

Discussion

2. Group-work. Come up with a definition of the word mediation. Think about the meaning which is related to the academic purposes. Discuss your ideas with the other students of the group.

3. Read the definition given below. Is it close to your own ideas? How do you understand the definition? Translate it into Ukrainian.
**Mediation**, in a broad sense, is a cognitive process of reconciling mutually interdependent, opposed terms as what one could loosely call "an interpretation" or "an understanding of".

**Identifying the content of a text**

4. Match the terms (1-6) associated with the predicting, locating, processing and interpreting the appropriate information with their definitions (A-F).

**WORKSHEET 5.4**

<table>
<thead>
<tr>
<th></th>
<th>Before you read</th>
<th>A</th>
<th>This is a type of speed-reading technique which is used when the reader wants to locate a particular piece of information without necessarily understanding the rest of the text or passage.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Skimming</td>
<td>B</td>
<td>This is the use of an expression which stands for an earlier word or group of words in the text.</td>
</tr>
<tr>
<td>3</td>
<td>Scanning</td>
<td>C</td>
<td>This is the relationships which link the meanings of the sentences in a text. A series of sentences develop a main idea (i.e. with a topic sentence and supporting sentences which relate to it).</td>
</tr>
<tr>
<td>4</td>
<td>Anaphoric reference</td>
<td>D</td>
<td>The person for whom the text is intended.</td>
</tr>
<tr>
<td>5</td>
<td>Coherence</td>
<td>E</td>
<td>This is the use of the title, introduction and any pictures to get an idea what a text is about. Think about the topic. This preparation will make it easier to understand the text.</td>
</tr>
<tr>
<td>6</td>
<td>Target reader</td>
<td>F</td>
<td>This is a type of rapid reading which is used when the reader wants to get the main idea or ideas from a passage</td>
</tr>
</tbody>
</table>

5. Find the right answers to 4 in **Self-assessment Part II Module 5**.
Getting involved with the text

6. **Pair-work.** Look through the text given below. Use the following questions as the guidelines for understanding the text.

1. What type of text do you think this is: an advertisement, an article, a report, informational material etc.?
2. From the title and subtitle, what do you predict the text is going to be about?
3. Skim the text focusing on the main ideas. Were your predictions correct?

7. Scan the text to find information about:
   - the growth in China's steel production and its consequences;
   - the major use of carbon;
   - current technologies for carbon manufacture.

8. Write an abstract of the text in Ukrainian.

---

**Clean Technology in Coke Production**

*Professor Fathi Habashi explains briefly how nitrogen quenching in coke manufacture can significantly reduce the harmful emissions of conventional coke making*

The growth in China's steel production – which last year saw it become the first country in history to produce more than 200 Mt in a single year - is leading to a structural shift in the metallurgical coal market, with China moving from being a big exporter to a net importer.

This change, together with supply disruptions in the rest of the world, has already led to significant market tightness, which is posing a particular problem to those steel mills that previously relied on importing Chinese coke.

BHP Billiton believes that the shortage of coking coal is emerging as the main bottleneck for steel producers outside of China. Continued high domestic demand is likely to see coke exports from China fall by a further 5 Mt this year. More than ever then, advances are needed in coke production.
It is said that organic chemistry is the chemistry of carbon while metallurgy is the technology of carbon. Carbon is a form of coal used in metallurgy, of course, as a fuel, but the major use is to make coke that is an essential component of the feed to iron blast furnaces. It is estimated that 50 Mt are produced annually worldwide. The current technology for its manufacture is based on heating coal in retorts in the absence of air then quenching the product with a limited supply of shower water.

This last step is highly polluting due to dust and toxic organic emissions. A technology now used in Japan and at a few plants in Korea and China, known as dry quenching, uses nitrogen in a closed circuit to avoid environmental emissions. In addition, heat is recovered as steam, from the red-hot coke.

In this process (see Figure 10.1 below), coke leaving the retorts is charged at the top of a closed reactor that acts as a heat exchanger through which nitrogen at 130°C is introduced at the bottom. The coke is then discharged at 200°C while nitrogen after passing through a dust removal system leaves at 900°C to a boiler to generate steam, and then recycled to quench the coke. In addition to eliminating the pollution in the coke plant and recovering the heat from the hot coke, less coke fines are produced.

Fig.10.1 Dry quenching of coke

9. Find the description of the dry quenching technology in the text and translate it into Ukrainian. Start your work with the translation of the elements of the scheme (Fig.10.1).
Grammar Reference:

Passive Constructions.
Process Description.

Follow-up
10. Pair-work. Compare your translation with your partner’s. Find any differences, discuss them with the partner, and choose the best.
Unit 11 Mediation: Interpreting the Content of a Text

Focus on

- predicting the content
- summarising the main message of a text
- identifying the topic sentences
- interpreting the content of a text
- identifying the passages challenging for translation

By the end of the unit you will be able to:

- understand text structure
- get a general understanding of a text
- locate relevant details by scanning through a text
- deal with unfamiliar words

Lead-in

1. Pair-work. Look at the title of the article below. Answer the questions that follow:

   - What do you know about the Siemens Company?
   - What is the Siemens name associated with?
   - How is the Company connected with the mining industry?

2. The subheadings given below are from the article. Translate them into Ukrainian. Compare your translation with your partner's, analyse differences, and choose the best variants.

<table>
<thead>
<tr>
<th></th>
<th>A step into the future</th>
<th>1. Крок в майбутнє</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>End-to-end process optimisation</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Assuring high productivity throughout the entire life cycle</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Completely integrated solutions improve overall plant performance</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>More transparency, improved decision making</td>
<td></td>
</tr>
</tbody>
</table>
3. To get a general understanding of the article given below read through it quickly, focusing on the main ideas. Match the subheadings (see Task 2) to the paragraphs of the article.

Siemens - Completely Integrated Mining Solutions

In the globalised mining industry, future challenges can only be mastered by raising productivity and reducing operating and extraction costs. At the same time, all environmental regulations must be met, while providing safe working conditions. As one of the global active players in the mining business, Siemens AG has developed a comprehensive answer to these challenges: Completely Integrated Solutions, encompassing the entire solution portfolio - from extracting to transportation and benefication of raw materials. Together, these solutions form the SIMINECIS product family, which also supports future technology migration and expansion of mine operations.

This integrated approach is backed by the expertise of the Siemens Industrial Solutions and Service division, where 35,000 employees continually work on advanced solutions for diverse industries including the mining and metals industry.

The SIMINECIS product family combines process technology, process automation, drive systems, energy supplies, IT / MES, water treatment, infrastructure and the corresponding life cycle services into intelligent and efficient complete solutions. Naturally, a mine's geological conditions determine the requirements for extraction planning, logistics and throughput of the benefication plant. By considering these system parameters, we design an individual, integrated solution around the industry-proven products of the SIMINECIS product family.

All process steps are marked by innovative solutions aimed at higher productivity, higher quality and lower costs. One such example is the world's first gearless walking dragline, SIMINECIS DRAG. Increasing productivity by up to 20%, it sets a new standard for drives. And there are more examples. In transportation, the SIMINECIS product family assures maximum productivity by integrating all data flows and by combining low maintenance AC drives with highly reliable basis automation systems. Pelletising plant operators benefit from SIMINECIS Pellet, an innovative process technology that raises productivity, reduces environmental pollution and results in lower operating costs. All these solutions are simply highlights from the SIMINECIS product family, which provides many more trendsetting technological solutions.
The SIMINECIS product family not only supplies the entire process chain, it also increases data transparency throughout all plant levels. To name just an example, SIMINECIS Prolog is a new MES tool that ensures a continuous flow of information to close the gap between the management and production levels. Now, from a business administration point of view, all processes can be optimised based on company objectives. Use of the modular MES solution makes it possible to increase the productivity and economic efficiency of the mine.

Mines generally remain in operation over several decades, so that service plays a central role when targeting long-term competitive performance. Services for SIMINECIS include a wide scope of activities, ranging from consulting and planning to installation, maintenance and modernisation. When needed, this extends even to dismantling. Moreover, life cycle has been taken into account in the design of the SIMINECIS product family. Each product has been assigned a clear strategy, such as the smooth migration of software and hardware platforms when completely or partially modernising the plant.

Apart from complete plant modules for continuous and discontinuous mining, hoisting shaft systems, pellet plants and preparation plants, the SIMINECIS product family also includes solutions for infrastructure, energy supply, water treatment and security systems.


4. Scan the article to find information about the following.
   - Future challenges of the mining industry
   - The SIMINECIS product family
   - Innovative solutions of the Siemens Company

5. Present the information found to the partner in Ukrainian.
Vocabulary practice

6. Look at the text above again paying attention to the words in **bold**. If you don’t know the meaning, follow the strategy given below and try to work it out. Use clues like these to help you guess the meaning of the words you don’t understand.

- *Is it like a word in your language?*
- *Is it formed from the word you know?*
- *Is it repeated later in the text?*
- *Is there the explanation, synonym, opposite, etc.?*

7. Check your guesses by matching the words in **bold** from the text above to their definitions given below. Put down the Ukrainian terms.

WORKSHEET 5. 5

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Raw materials – сировина</td>
<td>substances such as coal or iron that are in their natural state before being processed or made into something</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>a way to solve a problem or deal with a bad situation</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>something that needs a lot of skill, energy, and determination to deal with or achieve, especially something you have never done before and will enjoy doing</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>work that is done to keep a building, machine, or piece of equipment repaired and in good condition</td>
</tr>
<tr>
<td>E</td>
<td></td>
<td>the rate at which goods are produced, especially in relation to the time, money, and workers needed to produce them</td>
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<td></td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>to place, position, or fit into a position and then to connect, change, or modify in such a manner as to bring (the equipment) into service</td>
<td></td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>the ability to work well and produce good results by using the available time, money, supplies etc in the most effective way</td>
<td></td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>a large hole or tunnel in the ground from which people take coal, gold etc</td>
<td></td>
</tr>
<tr>
<td><strong>I</strong></td>
<td>the process or action of removing something</td>
<td></td>
</tr>
<tr>
<td><strong>J</strong></td>
<td>heavy equipment used in strip-mining operations to remove overburden above coal</td>
<td></td>
</tr>
</tbody>
</table>

8. Read the article through, find word combinations with the word *mining*, and translate them into Ukrainian. The first has been done for you.

**WORKSHEET 5.6**

<table>
<thead>
<tr>
<th><strong>mining industry</strong></th>
<th>гірнича промисловість</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

9. Find the information about the Siemens innovative mining solutions, their aims and benefits, and translate it into Ukrainian.

10. *Pair-work.* Compare the information chosen by you with your partner’s. Analyse your translations paying attention to the appropriate way of translating terminology.
Follow-up

11. Study the information about changes in Siemens Company. Give the full written translation of the company’s news into English.

Kompaniya Siemens будет разбита на 3 независимые сегменты

Немецкая инженерная компания Siemens AG (SI) будет разбита на три независимые сегмента, у каждого из которых будет свой исполнительный генеральный директор. Про это диктующий голову компании Петер Лешер (Peter Loescher) поведал журналистам у пятницы 5 октября.

За его словами, такой шаг есть частью плана реструктуризации компании, который она проводит для того, чтобы стать тоньше и резче. Окончательный план реструктуризации будет представлен на заседании наблюдательного совета директоров, которое назначено на 28 ноября. А также предполагается, что будут созданы три отдельных сегмента: охрана здоровья, автоматизация и инфраструктура, и энергоснабжение. При этом будет перетворена структура дюймовой исполнительной рады. У каждого сегмента будет свой глобальный исполнительный директор, который будет так же входит в исполнительную раду. А также у исполнительной рады будут члены, втыкозависимые от корпоративных отделов, включающих финансового, технологического, контролю и кадров.

Правда, за словами Лешера, решение по которому из трех сегментов будет приписано каждому из 10 существующих подразделений Siemens, розмаїтість направлений в діяльності яких варіюється від телекомунікацій до транспорту і енергетики, ще не прийнято.

За материалами K2Kapital
Unit 12 Mediation: Paraphrasing and Summarising

Focus on

- predicting the content
- extracting the main ideas
- identifying main and supporting points
- dealing with unfamiliar words
- interpreting the content of a text

By the end of the unit you will be able to:

- get a general understanding of a text
- locate relevant details by scanning through a text
- paraphrase the given information
- summarise the text
- deal with unfamiliar words
- render texts into your native language

Lead-in

1. Pair-work. Read the title and sub-heading which introduce a magazine article. Answer the following questions:
   1. What is this article about?
   2. What kind of person would be interested in this article?

2. Now read the first part of the article. What is the writer’s purpose in the first part? How useful were the title and the sub-heading in orienting you towards the text? Make the summarised translation of the text.
Identifying the key ideas

3. Go on to read the whole article. Underline the key idea in each paragraph. Write a sentence that summarises each paragraph. Compare your sentences with those of your partner. Discuss which sentences capture the main idea best.

**DURABLE DRILLING**

As mineral resources become harder to reach, the need to exploit them faster and cost efficiently is greater than ever. Innovation along the entire mine production chain begins at the rockface with drilling technology, and major investment will soon see more effective, durable and autonomous drills become the norm, says Jim Banks.

Resources are becoming **scarcer** and more valuable, and it is more important than ever to exploit resources to their maximum in a cost-effective way. Mining companies are trying to balance the drive for cost effectiveness with increased productivity with new technologies at all stages from **exploration** to export. The techniques and tools at the front line are among the top priorities, hence the huge investment that many mining companies are making in drills and drilling control systems. Rising commodity prices have given many of these companies sufficient cashflow to invest not only in new assets, but also the development of more sophisticated technology throughout the drilling and processing chain. Drilling is a key focus, given that it is a significant **contributor** to the total costs of exploration and mine production. A key focus of current research and development is extending a drill's **lifecycle**, thereby reducing cost in the long-term and, potentially, increasing productivity.
Work on creating durable, hard-wearing drill bits has been a priority for the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia's national science agency, which has devoted significant time and resources to developing highly wear-resistant cutting elements as part of its SMART*CUT drilling technology development project. CSIRO believes that these tools could revolutionise mining excavation by offering faster rates of penetration with lower energy expenditure. SMART*CUT – Super Material Abrasive Resistant Tools – uses thermally stable diamond composites (TSDC) in cutting and drilling tools. TSDC is over 1,000 times more resistant to abrasive wear than tungsten carbide, and problems with thermal instabilities limiting traditional diamond composites have been overcome.

CSIRO is now prototyping drill bits using TSDC, after laboratory drilling trials showed that the rock drill bits have twice the penetration rate and expend half the energy of traditional rock coring bits. There is certainly potential for mining companies to make significant savings as the technology develops.

ACCURACY AND CAPACITY
The efficiency of a drilling system will depend to a large extent on the speed and accuracy it can achieve. Technology developers such as Sweden's Atlas Copco have been working on systems that can combine the accuracy of down-the-hole (DTH) drilling with the capacity gains of hydraulic tophammer drilling. Rock drill bits have twice the penetration rate and expend half the energy of traditional rock coring bits.

Previous efforts to combine the advantages of these two drilling methods have met with limited success, but Atlas Copco believes that its COPROD systems have succeeded by integrating two types of drill string for percussive drilling.

Percussive drilling systems hark back to a time when manually striking and turning a steel rod would create a round hole. Most tophammer drilling uses
extension rods connected with threaded coupling sleeves, plus an **exchangeable** drill bit. This works well for smaller holes but fails as the diameter grows, given the limitations on energy transfer to the drill bit, as well as the problems with flushing and accurate alignment.

COPROD uses inner drill rods to transmit power to the drill bit, while outer tubes transfer rotation, meaning there is greater stiffness in the string and flushing efficiency improves. The rods have no threads but are stacked, with the result that high tophammer drilling rates can be achieved in large holes. The COPROD system may require a higher initial outlay than competing technologies, but Atlas Copco’s test data shows that it may well prove more economical over its lifespan than comparable systems.

**INVESTING IN THE FUTURE**

The current high levels of investment in new technology suggest that for large mining operations there is a focus on long-term value. Companies are spending now with a view to reaping sustainable and tangible benefits over the lifecycle of their operations.

"The efficiency of a drilling system will depend to a large extent on the speed and accuracy it can achieve."

Rio Tinto, for instance, massively increased its research and development budget in 2007, with a clear commitment to improving the performance of its mining operations through advanced technology. A feature of this research will be the development of new materials, possibly for the design of more durable drill bits.

This would add to the significant advances the company has already made, given that it is already using bespoke autonomous drill technology in its programme to automate its operations in Australia’s Pilbara iron ore region. The staged introduction of new technologies at Pilbara began in 2006 with the development of autonomous drilling rigs.
More automated elements along the mine-to-port chain are now being commissioned, including the remote operations centre 1,300km away in Perth, **driverless** trains to carry ore, a driverless truck fleet and remote control 'intelligent' drills.

All of these developments are intended to increase efficiency, reduce production costs and improve working conditions to help the company compete as an attractive employer in what is a challenging labour market. The company's management believes that human labour will no longer need to be hands-on as the equipment will be autonomous. For drilling technology, as well as the other components of the mine automation process, the dominant technology trend is likely to be robotics. Much of Rio Tinto's investment is aimed at replacing humans in the production process. The pace of this development will depend largely on what emerges from the centre for mine automation centre funded by Rio Tinto and based at the University of Sydney's Australian Centre for Field Robotics (ACFR).

"The Centre aims to provide a substantial improvement in safety, **predictability**, precision and efficiency of mining through the development of automation and remote operation across mining systems," says Rio Tinto's head of technology and innovation, Dr Grant Thorne.

Autonomous drilling technologies are already in development at CSIRO and elsewhere, and will no doubt be commonplace in the mines of the future.

Accessed on the site mining-technology.com

4. Paraphrase the information given in the last part of the article. The important things to remember are:

   1) a paraphrase is given in your own words;
   2) it cannot change the author’s meaning or intent;
   3) it makes the original text easy to understand.
Dealing with vocabulary

5. *Pair-work*. Find the words in **bold** in the article. With a partner, try to work out their meaning. Think about:

- the word class (noun, verb, adjective, etc.)
- the form: is the word formed from one you know?
- clues from the context.

Check your ideas with a dictionary.

6. Complete the worksheet below, use a dictionary, when necessary.

WORKSHEET 5.7

<table>
<thead>
<tr>
<th>Noun</th>
<th>Verb</th>
<th>Adjective</th>
</tr>
</thead>
<tbody>
<tr>
<td>automation</td>
<td></td>
<td>increased</td>
</tr>
<tr>
<td></td>
<td>Develop</td>
<td></td>
</tr>
<tr>
<td>drilled</td>
<td></td>
<td>drilled</td>
</tr>
<tr>
<td></td>
<td>Improve</td>
<td></td>
</tr>
<tr>
<td>performance</td>
<td></td>
<td>Penetrate</td>
</tr>
<tr>
<td></td>
<td>Compare</td>
<td></td>
</tr>
</tbody>
</table>

7. The following word combinations are taken from the article. Translate them into Ukrainian.

WORKSHEET 5.8

<table>
<thead>
<tr>
<th>Drilling technologies</th>
<th>'Intelligent' drills</th>
<th>Drilling rigs</th>
<th>Drilling system</th>
<th>Drilling rates</th>
<th>Drill rods</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>drill bit</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>-------------------</td>
<td></td>
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</tr>
<tr>
<td><strong>drill string</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>drilling trials</strong></td>
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<td></td>
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<td></td>
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<tr>
<td><strong>percussive drilling</strong></td>
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<td></td>
<td></td>
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<tr>
<td><strong>drill's lifecycle</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>drilling control systems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>tophammer drilling</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Grammar Reference:**

Parts of Speech

Word formation

**Follow-up**

See *Part II Self-study Resources, Section Mediation: Vocabulary Practice.*
Unit 13 CHECK YOUR PROGRESS

By the end of the unit you will:

- understand assessment criteria
- read and understand rubrics necessary for taking end-of-module test
- have practised taking test and manage time effectively

Task 1. Read through the following CV in which the paragraphs are jumbled up. Match the headings (A-F) with the paragraphs of the CV (1-6) and put them into the right order. The first one has been done for you.

<table>
<thead>
<tr>
<th>1–4B</th>
<th>2–</th>
<th>3–</th>
<th>4–</th>
<th>5–</th>
<th>6–</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Education</td>
<td>(D) Professional Experience</td>
<td>(B) Personal Details</td>
<td>(E) References</td>
<td>(C) Interests</td>
<td>(F) Additional Skills</td>
</tr>
</tbody>
</table>

Curriculum Vitae

(1) __________
Sports: Swimming and boxing.

(2) __________
2005-2006: Birmingham Chamber of Commerce
Diploma in Public Relations
2002-2005: University of Leeds
BA in Journalism

(3) __________
Peter Brown
Professor of Journalism
University of London
Paul Hopkins
Sports Editor
The Times
Name: David Harper
Date of Birth: 5 September 1983
Nationality: British
Address: 62 High Street
          Edinburgh BF7 8MP
          Scotland

Telephone: 053 749 9306
E-mail: harperdavid@yahoo.com

2006 to present: Scottish Wildlife Trust
                    Department of Public Relations
                    Responsible for writing articles on all aspects of the Trust’s
                    activities and ensuring their distribution to the press. Editor
                    of the Trust’s monthly journal.

2004-2005: Shop assistant in the record department of Harris Stores
           Ltd., Edinburgh.

Driver’s licence
PC user
Fluent French and Italian

Task 2. Complete the following letter of application to the summer mining
school by choosing the more suitable expression A or B from (7-16) given
below.

Dear Sir/Madam,

I am writing to apply for a place on your summer mining school. I

(7) __________
Dear Mr Black

A friend showed me your advertisement in the Mining of Today for a summer mining school. As I would like to make a career in mining, I am 19 years old and I am a second-year student of the mining faculty. I study mining at the National mining university and it has always been my favourite subject. I have taken part at different students’ scientific conferences held in our region. One of my regrets is that I have never participated in technological processes of coal winning and I hope this school will give me such an opportunity.

The options, giving me some more information about what is included in the course as something new.

A About
B Regarding
A how about
B would you mind
A I would like to learn
B I’m really keen to learn
A I look forward to hearing from you.
B Please write soon.
A Best wishes,
B Yours sincerely,
Task 3. Read the following passage in which all the sentences in the active voice. Rewrite the passage using the passive phrases.

(17) The aim of the article is to give the reader some information on different types of renewable energy. (18) The article discusses the most important properties of energy. (19) The author starts by telling the readers about different forms of energy, such as light, heat, and electricity, which surrounds us every day. (20) The author stresses that non-renewable energy has limited supply as it does not quickly replace itself. (21) The world’s natural gas, crude oil and coal deposits took millions of years to form. (22) These is a high level of power consumption. (23) According to the text the world’s energy demands are rising up. (24) Further the author says that by means of renewable energy we become less dependent on the grid. (25) The article gives the reasons why people are interested in using less energy from the grid. (26) Renewable energy, which comes from the natural flow of sunlight, wind, or water around the Earth, quickly replaces itself. (27) The author concludes with the reasons to choose renewable energy.

Self-assessment
Task 4. Assess yourself using the keys given in Part II Self-study Resources.
Indicative Reading


4. ‘Coal Age’.

5. ‘Coaltrans’.

6. ‘Engineering and Mining Journal’.

7. ‘International Mining’.

8. ‘Mining Magazine’.

9. ‘World Mining Equipment’.
References

2. Баракова М.Я., Шендерова Р.Л. Английский язык для горных инженеров. Пособие по обучению чтению. М.: Высшая школа, 1987.–104 с
5. Кострицька С.І. Методичні рекомендації з підготовки та проведення презентацій (виступів-доповідей) для студентів, спеціалістів, магістрів, аспірантів усіх напрямів підготовки. Дніпропетровськ: РВК НГУ, 2004. – 26 с.

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Functional exponents (see language and functions in Exchanging information, Socializing, Telephoning, (Writing) Letters)

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