

**Republic of Iraq
Ministry of Education
General Directorate of Vocational Education**

English for Industrial Schools

Book 2

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

In the Name of Allah,
Most Gracious,
Most Merciful.

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Introduction

This book is intended for second - year students of Industrial Preparatory Schools. It has six Teaching units and two Review ones. After every three Teaching units, there is a Review one to review the language covered in the preceding teaching units and to reinforce new language work relevant to grammar, language skills and topics covered so far. Within the Teaching units, most vocabulary and main grammar are presented in interactive exercises and texts which allow full comprehension of the topics presented. The material it contains is sufficient to occupy (62) teaching hours.

Book design

The book design is based on an integrated syllabus. It covers grammar, vocabulary, language skills: listening, speaking, reading and writing, pronunciation and topics related to students' specification; industry. This is to ensure its communicative purposes within the activity sequence.

Features of the book

The presented material varies in each unit; different topics are introduced. **New vocabulary** is introduced at the beginning of the unit in the form of exercises so as to make them familiar to students when they appear again in the reading text.

Speaking is presented to provide students with an opportunity to express themselves and actually use English in the form of exercises and dialogues which will equip students with the basic expressions needed to cope with everyday conversations in English concerning their field of work and study. It will give them both practice and confidence in using what they learn.

Reading comprehension, there is one main reading text preceded by **lead in** questions and exercises to give students reason to read and to predict what they will be reading about in the text. At the same time, it is a kind of brain storming to what they already know about the world (prior knowledge) or about English. The reading texts are supplemented with various activities to help students see new vocabulary, expressions and material in more than one way. The reading texts are interesting, stimulating and contain examples of the main structure item of the unit

Pronunciation is intended to provide practice in the pronunciation of English consonants with sufficient words and sentences for practice.

Grammar, the main grammatical points are given almost according to their occurrence in the reading passages. It contains exercises which practice the main structure item. It is also reviewed in the **Revision** units to reinforce them and make them easier to use.

Revision is crucial in language learning. There are two revision units: after every three units, there is one. Language and structures are recycled throughout various exercises. That will help students reinforce what they learned; especially new items and vocabulary.

Working in pairs or small groups

The learner is the core of the learning process. It means s/he must have an active role whether individually or in pair/group work. Most exercises can be done orally as a whole class or as written answers (teachers can do both; do the exercises orally and assign as homework to practice and improve writing skills).

However, the teacher may want students to do some of the activities working in pairs or small groups. In this case, make

Sure that students understand the task. The teacher may go round and listen to pairs as they work, giving help where necessary, before eliciting answers from the whole class together.

Pair or group work is not easy to organize in every class, and there may be a noise problem to deal with. However, we feel it is worth trying occasionally. Working in pairs or groups encourages students to share ideas, practice and help each other, which can broaden their communication skills. If students enjoy working like this, as it's a change of focus and a change of activity, they will probably appreciate that they have to work quietly.

Teachers monitor in order to:

- aid the flow of conversation when necessary,
- identify any common errors or areas of breakdown,
- offer encouragement, and
- recognize when best to change the pairings or the groups.

Unit One

Chemical Industries

Vocabulary

1.1 Write the jobs of the following workers in the spaces below:



.....



.....



.....



.....



.....



.....

1.2 Match jobs with works:

1	An engineer is a person who	a	makes things out of iron.
2	A mechanic is a person who	b	builds with brick.
3	A blacksmith is a person who	c	uses science to solve technical problems
4	A fitter is a person who	d	measures and makes maps.
5	A bricklayer is a person who	e	uses or repairs engines, or other machines .
6	A surveyor is a person who	f	puts together and adjust machinery .

Speaking

1.3 Most of the chemical industries are made of petroleum and are thus called petrochemicals. Discuss with your classmates the various kind of chemical industries products as follows:

Thamir: Have you ever visited a factory of petrochemical products?

Kareem: Yes, I have visited one in Basrah. The school managed a trip last month.

Thamir: What does it produce?

Kareem: It produces plastic supplies, wood adhesive, pipes and rubber.

Thamir: Are these products for export or just for local consumption?

Kareem: I think they hardly satisfy the local needs.

Reading

1.4 Read the text below to answer the following questions .

1. What is chemical industry?
2. What are raw materials transformed into?
3. Mention the names of acids which are given in the reading text.
4. What do agrochemicals include?
5. Are explosives dangerous or safe?
6. Are chemical reactions and refining used to produce solid materials only?
7. Where are the products of reactions packaged?
8. Can differential rates of economy affect chemical production?

1.5 Chemical Industry

Chemical industry is what a civilian or war economy needs. It includes the basic industries as well as the necessary portions of those other industries that transform the raw materials such as oil, natural gas, air, water, metals and minerals into useful products. These products include inorganic chemicals such as salt, chlorine, caustic soda, soda ash, acids (nitric, phosphoric and sulfuric), titanium dioxide, and hydrogen peroxide. They also include organic industrial chemicals such as agrochemicals which include fertilizers (phosphates, ammonia and potash chemicals) and insecticides. They also include ceramic, petrochemical products, flavours, rubber, oil, fats, waxes and explosives.

Chemical industry involves the use of chemical processes such as chemical reactions and refining to produce solid, liquid and gaseous materials. The products of these reactions are separated by using a variety of techniques including distillation, crystallization, absorption, filtration and drying. Then the products are tested, packaged and delivered by many methods including pipelines, tank-cars, trucks, cylinders, drums, bottles and boxes.

Chemical industry has shown rapid growth for more than 50 years. Historically and presently, the chemical industry has been concentrated in three areas of the world; Western Europe, North America and Japan. The traditional dominance of chemical production by these three areas is being challenged by changes in feedstock, availability and price, labour cost, energy cost, differential rates of economic growth and environmental pressure. Then this growth has been spread in China, India, Korea, the Middle East, South East Asia, Nigeria, Trinidad, Brazil, Venezuela and Indonesia.

1.6 Complete the statements below with information from the text above:

1. The chemical industry transforms the raw materials into
2. Some of Inorganic chemicals products are..... , whereas some of organic chemicals include ,
3. Solid, liquid and gaseous materials are produced by the processes of
4.,..... are some of techniques used for separating the products of reactions.
5. The traditional dominance of chemical production is being challenged by changes in

1.7 Fill in the blanks with the words or phrases in the box:

as well as	involve	separated	techniques
delivered	growth	production	has been spread

1. Goods will be once you make a request.
2. Human demands increase as in population increases.
3. Because of high sales, car companies have extended their
4. Flame and fuel should be always to avoid fire.
5. High quality of production is necessary to gain profits good reputation.
6. World Wide Websiteis a new technology of communication
7. New plans of industry development further expenditure.
8. Different administrations can lead to successful management.

Pronunciation

1.8

1. /i:/

- 1- the letter (e) be he these complete Eden
- 2- the letter (ea) each sea leaf wreath
- 3- the letter (ee) feel see breeze sheet
- 4- the letter (ei) seize receive deceive receipt key
- 5- the letter (ie) achieve brief niece thief

Exceptions : Caesar, people, suite, mosquito.

2. /i/

Spelling Examples

The letter (i)	sit hit rich lyric
The letter (y)	city rhythm symbol
The letter (ie)	ladies cities

3. /e/

Common spellings: (e) and (ea) as in: bed egg head dead breath

Unusual spellings: friend said says any leisure bury leopard

Grammar

1.9 The Past Continuous Tense

Uses: This tense refers to an action that happened and continues for some time in the past

Yesterday, John and Smith played football. They began at 3 o'clock and finished at 5 o'clock. So, from 3 to 5 o'clock they were playing football.

At 4 o'clock Selma wasn't at home.

She was at the tennis club.

She was playing tennis.

She wasn't watching television.

The past continuous is formed with :
was/were + -ing form of the verb

Positive			Negative			Question	
I He She It	was	doing watching playing running living (etc.)	I He She It	wasn't (was not)	doing watching playing running living (etc.)	Was	I he she it
We You They	were		We You They	weren't (were not)		Were	we you they

- What were you doing at 11:30 yesterday? Were you working?
- "What did he say? "I don't know. I wasn't listening."
- It was raining, so we didn't go out.
- We were living in Kut from 1994 to 1999.
- I woke up early yesterday. It was a beautiful morning .The sun was shining, and the birds were singing.

Spelling

1.10

study → studying live → living run → running lie → lying cut → cutting

Practice

1.11 What were you doing at the following times? Write one sentence as in the example.

- (at 8 o'clock yesterday evening) I was having dinner with some friends.
- 1. (at 10.15 yesterday morning)
- 2. (at 7.45 yesterday evening)
- 3. (this time last year)

1.12 Past Simple and Past Continuous

We often use the past simple and past continuous together to say that something happened in the middle of something else:

- Muna burnt her hand while she was cooking the lunch.
- I saw you in the park yesterday while you were sitting on the grass and reading a book.
- While I was working in the garden, I hurt my back.
- I was walking along the road when I saw Ahmed.

Exercises

1.13 Use your own ideas to complete these sentences. Use the past continuous.

1. The doorbell rang while I
2. We saw an accident while we
3. Hind fell asleep while she
4. The television was on but nobody

1.14 Make negative comments on the statements and then ask questions as in the example below.

Was he reading when you saw him yesterday?

He wasn't reading when I saw him yesterday.

1. Was Fatima practicing the piano when you saw her yesterday?
2. Were they playing chess when you saw them yesterday?
3. Was she doing her shopping when you saw her yesterday?

1.15 Safety Corner

Warning signs



Writing

1.16 Write a paragraph about 'Chemical Industries' by answering the following questions.

1. What is the basic raw material of chemical industries?
2. What processes are used for producing chemical materials?
3. What are some of organic and inorganic chemicals?
4. How are chemical industries useful to make our life easier?
5. How can we keep our environment clean from chemical pollution?



Unit Two

Human Rights

Vocabulary

2.1 A.Fill in the blanks with words from the list below.

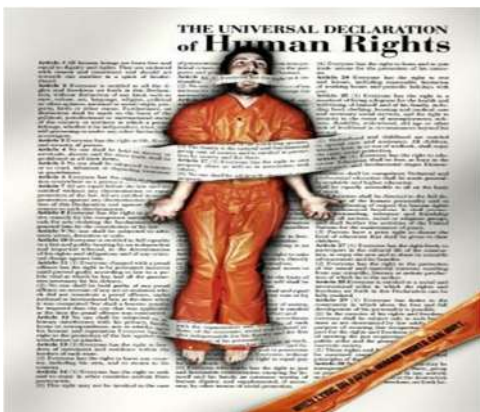
(peace , chained , studying , free , working)



1.These students are.....



2.These hands are.....



3.This prisoner is not.....

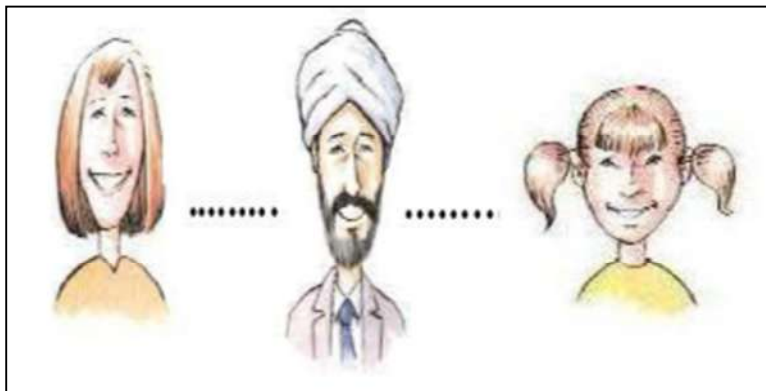


4.The dove is a symbol of.....



5.This mechanic man is

B.Fill the blanks with one of these signs twice:- (+ , −, ÷, × , =)



2.2 Match words in List A with their opposites in List B:-

List A

- 1.peace
- 2.friend
- 3.right
- 4.ancient
- 5.fair

List B

- a. unfair
- b. modern
- c. war
- d. enemy
- e. wrong

Speaking

2.3 Complete these sentences.

1. I would like to be.....
2. My favourite game is
3. I would like to learn about
4. I feel happy when
5. A bird can

2.4 Ask and answer about the human rights mentioned in 2.1 and 2.2.

A – What are some of the human rights mentioned in 2.1 ?

B – They are : the right to education , the right to work

Reading

2.5 Read the text in 2.6 and answer these questions.

1. How does every person have to be treated?
2. Give some examples of human rights.
3. Are human beings born free and equal in dignity and rights?
4. What does the history of human rights cover?
5. When was the Universal Declaration of Human Rights adopted?
6. What did religions and philosophies include?
7. Who are endowed with reason and conscience?

2.6 Read the text and check your answers.

'Human rights' refers to the basic rights and freedoms according to which every person has to be treated in a fair, equal way without cruelty especially by their government. Examples of rights and freedoms which are often thought of as human rights include civil and political rights, such as the right to life and liberty, freedom of expression, and equality



before the law and social ,cultural and economic rights ,including the right to participate in culture ,the right to food ,the right to work and the right to education. All humans are born free and equal in dignity and rights .They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

The history of human rights covers thousands of years and draws upon religious, cultural, philosophical and legal developments throughout history. Several ancient documents and later religions and philosophies included a variety of concepts that may be considered to be human rights.

The Universal Declaration of Human Rights was adopted by the United Nations General Assembly in 1948, which promotes and encourages respect for a number of human, civil, economic and social rights and for fundamental freedoms for all without distinctions to race, gender, language and religion.

2.7 Write true for the sentences that express human rights and false for sentences do not.

1. I always get up late. ☐
2. We look for a good life . ☐
3. He cheated in the exam . ☐
4. The workers need good working conditions . ☐
5. They respect their neighbours . ☐
6. The court appointed a lawyer to defend the prisoner . ☐

Pronunciation

2.8

1. / a / at am act cat sat fat ant as man glad black

2. / ə : / The letters (er) in the middle of the word : certain germ term
person

The letters (ir) in the middle of the word : third bird skirt sir stir

The letters (ur) in the middle : burn murder curved hurt nurse

The letters (ear) at the beginning and in the middle : early earn
heard journey

Except for (ear beard heart)

The letters (wor) at the beginning : word worn worm wors

Except for (worry /ʌ/ worn /o:/)

3. / a : / The letters (ar) not followed by (e) : art arm cart part far
star march
Except for (are)

The letter (a) followed by one of the following sounds : /s/ , /f/ , /θ/
and :

ask fast last glass pass grass after bath

The letters (al) in the following : palm half calf alms

It is found in the following:

aunt laugh draught clerk father guard vase heart dance
rather

Grammar

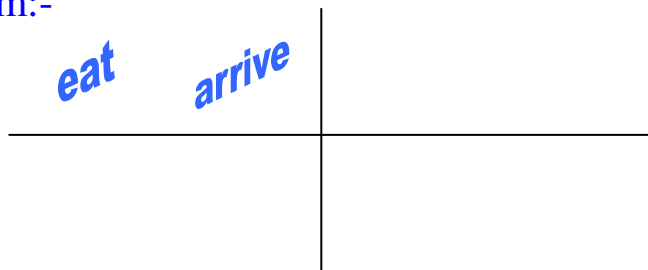
2.9 The Past Perfect Tense

This tense is formed by using two components: the verb HAVE (in the past tense) and the past participle form of a verb. This tense expresses an activity that was completed before another activity or a time in the past.

Look at this example:-

I had already eaten when they arrived. (first I finished eating. Later they arrived)

Look at this diagram:-



We also use the time conjunctions **before** or **after** to express this tense:

- Ex. 1. **After** the guests had left, I went to bed.
2. Sami had travelled **before** we went there.

Exercises

2.10

A. Give the correct verb tense:-

1. The engineer (repair) the car before he went home.
2. The electrician fixed the wiring after he (arrive) here
3. When I met them, they already (finish) their meal.
4. Before she wrote the letter, she (watch) TV.
5. The police arrested the thief after they (spend) hours of searching.

B- Join each pair of these sentences using the given conjunction. Follow the example

1. The match started. He arrived. (when)
The match had started when he arrived.
2. He played hockey. He studied English. (after)
3. I ate the apple. I went to school yesterday. (before)
4. Jamal had that car ten years. It broke down. (before)
5. I saw many pictures of the Pyramids. I went to Egypt. (after)

C- Fill in the blanks.

1. go, went, gone.
2. stay, stayed,
3. feel, felt,
4. give, gave,
5. eat, ate,
6. put, put,
7. have,,
8. do,,
9. weave,,
- 10- drive,

2.11 Human Tips

1. Give to every human being every right that you claim for yourself.
2. No man is above the law and no man below it.
3. God love birds and created trees. Man loves birds and invented cages!
4. Animals are my friends and I don't eat them.
5. Know your human rights. Be what you come here for.



Writing

2.12 Write an e-mail to a friend of yours telling him that you have read a passage about ‘human rights’ at school .Include your e-mail information from the reading -text you studied in 2.6 and how you feel about that (i.e. how you liked it and how important it is to study about human rights).Be as brief as possible .



Unit Three

Metals and their Properties

Vocabulary

3.1

Key Words :

iron , tin , gold , silver ,lead , mercury , copper

Now , say what metals you can see in the following images



.....



.....



.....



.....



.....



.....



.....

3.2 Match words in List A with their definitions in List B.

List A

1.Gold 2.Silver 3.Iron 4.Brass 5.Alloy 6.Tin 7. Ore 8. Zinc

List B

- a. a homogeneous mixture or solid solution of two or more metals.
- b. a highly precious metal having a bright yellow colour.
- c. an alloy of copper and zinc.
- d. an element used to coat other metals to prevent corrosion.
- e. A strong hard magnetic silver – grey metal
- f. A precious shiny grayish- white metal
- g. a material that contains a metal in such quantities that it can be mined or worked commercially to extract that metal.
- h. a metallic chemical element having a white colour with a bluish tinge.

Speaking

3.3 Discuss the following.

Many of the things that you see around the home are made from metals. These things show the importance of metals in our daily lives.

Choose items from the scenes below to discover the metals used



Reading

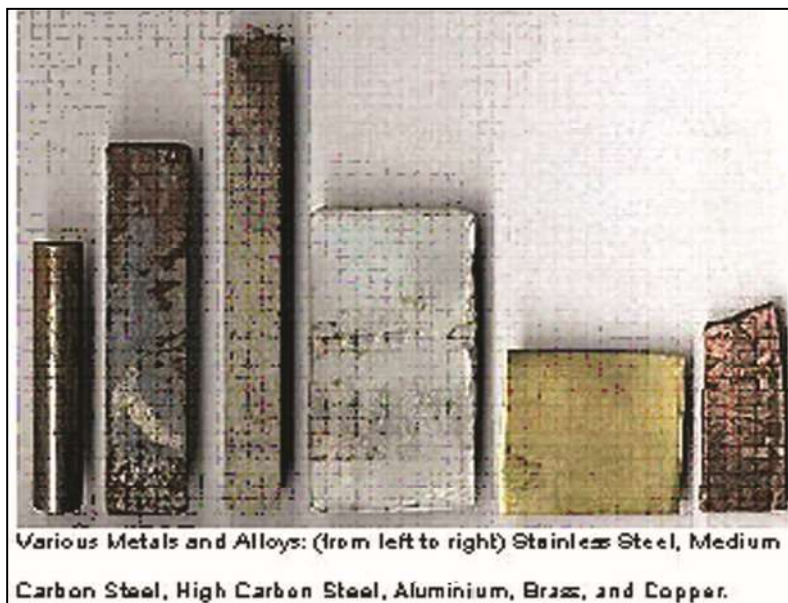
3.4 Read the text below to answer the following questions.

1. How are metals extracted from the earth?
2. What is an alloy?
3. Is sight alone enough to accurately determine the identity of the type of metal?
4. How are several metals given general identifications?
5. What elements does brass consist of?

3.5 Metals and their Properties

Metals are often extracted from the earth by means of mining, resulting in ores that are relatively rich sources of the necessary elements. Ore is located by prospecting techniques, followed by the exploration and examination of deposits. Mineral sources are generally divided into surface mines, which are mined by digging using heavy equipment, and subsurface mines.

Once the ore is mined, the metals must be extracted, usually by chemical or electrolytic reduction. High temperatures are used to convert ore into raw metals. The methods used depend on the metal and their contaminants.



In the metal working industry it is often necessary to identify different types or alloys of metal. Several metals are easily given general identifications by their physical appearance. It is quite easy to perceive the difference between the sample of copper and the sample of brass. However the difference in appearance is not as defined between the samples of steel alloys. Depending on the surface texture even the aluminum could be mistaken for steel. Two pieces of metal

can look and feel exactly the same yet be alloy. An alloy is a homogeneous mixture or solid solution of two or more metals, or a compound containing metal with certain non-metals, (especially carbon) the atoms of one replacing or occupying the small spaces between the atoms of the other. Brass is an alloy of copper and zinc. By visual identification we cannot see the copper content in the brass, nor can we see any indication of tin. Brass therefore is not a true metal, i.e., an elemental metal, but an alloy metal. Steel is an alloy metal, too. It is an alloy of iron and other metal and non-metal elements. Since sight alone is not enough to accurately determine the identity of the type of metal, we must find a more accurate way of identifying the sample.

One of the methods by which we may chemically identify metal alloys is called chemical spot testing. A chemical spot test kit can provide enough identification for combinations of metals. Reagents are dropped onto the paper showing the distinct colours which are indicative of the presence of specific elements in the sample tested.

3.6 Fill in the blanks with the suitable words from the list below.

metals	ores	mechanical	extraction	conditions
---------------	-------------	-------------------	-------------------	-------------------

Metallurgy is the science and technology of 1..... and alloys. Process metallurgy is concerned with the 2..... of metals from their 3..... and with refining of metals. Physical metallurgy is concerned, with the physical and 4..... properties of metals as affected by composition, processing, and environmental 5....., whereas mechanical metallurgy is concerned with the response of metals to applied forces.

3.7 State whether each of the following statements is True or False.

1. Mercury is the only metal to be liquid at room temperature.
2. Stainless steel or galvanized steel is used where resistance to corrosion is important.
3. Low temperatures are used to convert ore into raw metals .
4. Metallic elements and their alloys are among our most useful materials.
5. Brass and steel are true metals.

Pronunciation

3.8

1. / o / fox odd off top song gone long adopt shot hot pot

The letters (qua) : quality quantity quarrels

It is also found in the following words: want wash watch
wander what was

It is not pronounced when it is followed by silent
(r), it is pronounced / o: /

2. / o: / or fork short storm port door sword worn

1- The letters (al) : also all always fall although call almost
chalk salt talk walk false small

Exception (shall), alarm, alive, alert

- 2- The letters (aught): caught taught daughter

Except (draught) /au/

- 3- The letters (ought): ought bought brought fought sought

- 4- The letters (aw): awful law saw draw raw jaw dawn

It is also found in the following words: war warn warm
four pour source court cause because pause fault
author water board

Listen and practice the difference between /o/ and /o: /

cod cord fox forks pot port spot sport

3.the letter / u / put full sugar

The letter (oo) good book wood wool

The letter (ou) could should would

The letter (wo) woman wolf bosom

Grammar

3.9 Gerunds

A gerund is a noun formed by adding the suffix 'ing'. The following are all gerunds :

swimming / running / drinking

1-Although a gerund is a noun, it can still take an object (like a verb). This is known as a gerund complement

- 1- Playing the guitar is easier than it seems.
- 2- What can you do beside typing?
- 3- After swimming, I felt cold.



**2- it can be the object after certain verbs
such as : stop give up like enjoy hate mind hear**

- Her father stopped sending the money.

3 - We can use it after prepositions:

- The computer operates quickly in solving problems.

Gerunds look identical to present participles (adjectives formed from verbs).



Examples:

- Running the tap will clear the air pocket. (gerund, i.e., a noun)
- Can you fix the running tap? (Participle, i.e. , an adjective)

Put the verbs in brackets in the gerund or the infinitive.

Example: They promised _____ (*sell*) the old comics.

Answer: They promised *to sell* the old comics.

Example: I'm interested in _____ (*read*) love stories.

Answer: I'm interested in *reading* love stories.

- 1) We decided (*buy*) a new car.
- 2) They've got some work (*do*).
- 3) Peter gave up (*smoke*) .
- 4) He'd like (*fly*) an aeroplane.
- 5) I enjoy (*write*) picture postcards.
- 6) Do you know what (*do*) if there's a fire in the shop?
- 7) Avoid (*make*) silly mistakes.
- 8) My parents wanted me (*be*) home at 11 o'clock.
- 9) I dream about (*build*) a big house.
- 10) I'm hoping (*see*) Lisa.



3.10 SAFETY EQUIPMENT

1. Appropriate safety equipment must be worn when casting metals.
2. Aprons, gloves and leggings should be leather as this offers the most protection .
3. Normal textile material burns very quickly and should not be used for the casting process.
4. Strong, leather shoes should be worn at all times in the workshop as they offer the best protection for feet. In industry shoes with steel toe caps are a basic requirement.



Writing

**3.11 Write an essay about ‘Silver and Gold’ as precious metals.
Make use of the following words and expressions to write your essay:**

(precious metals expensive cheaper jewellery necklaces bracelets
rings earrings fond of women owning in the form of)

Revision 1

1. Correct the form of the verb between the brackets.

1. They (eat) breakfast in the cafeteria when they heard a crash in the street.
2. While I (shop), I lost my purse.
3. I (make) coffee when Sami phoned.
4. The sun (shine) when they left the house.
5. While he (leave) the office, his mobile rang.
6. When it started to rain, the children (play) in the park.

2. Complete the following questions with the past participles of the verbs in the box. Then answer the questions.

ride be swim fly eat meet

Have you ever.....

1. been in London? No, I haven't .
2. -----a bike? -----.
3. -----Chinese food? -----.
4. -----a famous person? -----.
5. -----in a plane? -----.
6. -----in the river? -----.

3. Complete the sentences with gerunds. Use the words and phrases in the box.

read/ to children walk
skydive
watch/ TV
not/eat/ too much chocolate join/a
club

1. Watching TV is what I like to do in the afternoons.
2. -----is a dangerous sport.
3. -----is a good idea if you're on a diet.
4. -----is a good way to meet people.
5. -----helps them learn new words.
6. -----is the easiest way of exercise.

4. Complete the following sentences with words from the box.

gender test products source equal respect
raw material mines

1. She doesn't eat any dairy-----.
2. We should all-----old people and help them.
3. This application form contains an item about-----.
4. Lots of diamonds-----are in South Africa.
5. Adil got his driving licence after he had taken the driving----- .
6. The Internet is an important-----of learning nowadays.
7. Girls have-----rights to express themselves as boys.
8. Petrol is a-----for many industries.

5. Choose the correct alternative.

1. Industry transforms/makes raw materials into products.
2. He must treat/ behave everyone in his office equally.
3. The project involves/ consists of working with software teams.
4. When they repaired the machine, they soon adopted/ took the original style.
5. She identified/ chose the short coming when they puts the engine in try.
6. We perceived/ saw some difference in his behavior.

6. Write a letter to a friend. In your letter do three of the following things. Use gerunds to:

- thank your friend for something.
- apologize for something.
- describe what you did last weekend.
- describe a new sport or hobby.
- invite your friend to do something.

Dear Huda,

Thank you so much for inviting Dalia and me to your birthday party last week. We enjoyed being there and meeting our old friends again



Unit Four

Construction

Vocabulary

4.1 Match the words in List A with their meanings in List B.

List A

1. process
2. infrastructure
3. multitasking
4. architect
5. execution
6. collapse
7. highway

List B

- a. a person whose job is designing buildings
- b. the basic systems and services that are necessary for a country or an organization needs to smoothly
- c. the act of putting a plan into action
- d. a series of things that are done to achieve a particular result
- e. a main road for travelling long distances
- f. to do several things at the same time
- g. fall down, often after breaking apart

4.2 Fill in the blanks choosing either a verb or a noun.

1. Do you know how to the machine? (maintain/maintenance)
2. This is very old. (build/building)
3. You can't work by yourself! You need some.....
(supervise/supervision)
4. They don't have all the to execute the project.
(require/requirements)
5. requires good planning, money and effort.
(construct/construction)
6. I told you all that I know about the accident. I have nothing to
..... .(add/addition)
7. He is an excellent architect. Why doesn't the firm take his opinion
into?(consider/consideration)

Speaking

4.3 Answer the following questions.

1. Is it possible for any person to construct a building?
2. Do engineers depend on a single plan to construct different types of buildings?
3. Why do some construction projects fail?
4. What does one need to carry out a successful construction plan?

4.4 What do these pictures show you? Choose from the words between brackets and add some details :(highway construction, skyscraper, dam, construction site, and crane).



1



2



3



4

Reading

4.5 Read the text to answer the following questions.

1. What is meant by building construction?
2. Whom do we need to carry out a large –scale construction plan?
3. What is the main aim behind heavy/highway constructions?
4. Is there any point of similarity between building construction and heavy /highway constructions? What is it?
5. Do you agree that industrial constructions are non-profit projects? How?
6. What is the difference between heavy/highway constructions and the industrial ones?
7. What kind of construction projects do governmental agencies carry out?

4.6 Construction

Construction is a process that consists of the building or assembling of infrastructure. Far from being a single activity, large scale construction is a multitasking activity .Normally the job is managed by the project manager and supervised by the construction manager, design engineer, construction engineer or project architect.

For the successful execution of a project, effective planning is essential. Those involved with the design and execution of the infrastructure in question must consider the environmental impact of the job, the successful scheduling, budgeting, and availability of materials, logistics, and site safety.

In general, there are three types of construction:

1. Building construction.
2. Heavy/highway construction.
3. Industrial construction.

Each type of construction project requires a specialized team to plan, design, construct, and maintain the project.

1. Building Construction:

Building construction is the process of adding structure to real property. The majority of building construction projects are small renovations, such as addition of a room, or renovation of a bathroom. Often, the owner of the property acts as laborer, paymaster, and design team for the whole project. However, all building construction projects include some elements in common - design, financial, and legal considerations. Many projects of different sizes reach undesirable results, such as structural collapse, cost overruns, and/or litigation reason; those with experience in the field make detailed plans and maintain careful oversight during the project to ensure a positive outcome.

2. Heavy/ Highway Construction:

Heavy/highway construction is the process of adding infrastructure to a built environment. Owners of these projects are usually governmental agencies, either at the national or local level. As in building construction, heavy/highway construction has design, financial, and legal considerations. These projects are not usually undertaken for-profit, but to serve the public interest. However, heavy/highway construction projects are also undertaken by large private corporations, including, among others, golf courses, harbors, power companies, railroads, and mines, who undertake the construction of access roads, dams, railroads, general site grading, and massive earthwork projects.

As in building construction, the owner will assemble a team to create an overall plan to ensure that the goals of the project are met.

3. Industrial construction:

Industrial construction, though a relatively small part of the whole construction industry, is a very important component. Owners of these projects are usually large, for-profit, industrial corporations. These corporations can be found in such industries as medicine, petroleum, chemical, power generation, manufacturing, etc. Processes in these industries require highly specialized expertise in planning, design, and

construction. As in building and heavy/highway construction, this type of construction requires a team of individuals to ensure a successful project.

4.7 Complete the following sentences.

1. ' Building Construction ' means
- 2.....are needed to carry out a large-scale construction plan.
3. The main aim behind heavy/highway construction is to.....
4. The similarity between building construction and heavy/highway constructions is
5. Industrial constructions are considered non-profit projects because.....
6. The difference between heavy/highway constructions and the industrial ones is
7. Governmental agencies carry outprojects.

4.8 Fill in the blanks with the appropriate words

(ensure multitasking considerations collapse renovation dam undertake).

1. The engineer should make careful calculations tothe success of the project.
2. The computer is a device.
3. The bathroom is in a bad condition. It needs immediate
4. A big company will..... the construction of the to solve the water problem.
5. The sudden..... Of the building has caused so much damage to the neighborhood.
6. They should take the budget into..... before carrying out any project.
7. Keep children away from construction sites to their safety.

4.9 Pronunciation

10. /u: /

1. acute mule June cube huge mute use
 2. The letters (ui) ruin suit suitor fruit fluid . Except for (guitar, guide).
 3. The letters (ew) drew few flew new grew view knew
 4. The letters (ou) group wound through you do future beauty
- Listen and practice the difference between /u/ and /u:/:
- foot food good boot full fool pull pool

11. /ʌ /

1. The letter (u) but shut cut much run uncle luck ugly up us
2. The letter (ou) double couple trouble enough country young touch
3. The letter (o)son won one done love month worry come blood

12. /ə / the letter (a) at the beginning of the words

ago away again about alone around
picture future culture fracture adventure Except
for(mature).
measure pleasure treasure leisure
actor doctor visitor sailor translator author writer teacher
brother never
complete contain police beggar England pillar success
comfort operation

Grammar

4.10 Adjectives:

-ed / -ing adjectives

Many English adjectives are formed with -ed / -ing endings of verbs:

Verb	-ed	-ing
amaze	amazed	amazing
challenge	challenged	challenging
encourage	encouraged	encouraging
fulfill	fulfilled	fulfilling
gratify	gratified	gratifying
humiliate	humiliated	humiliating
interest	interested	interesting
please	pleased	pleasing (pleasant)
relax	relaxed	relaxing
surprise	surprised	surprising
tempt	tempted	tempting
thrill	thrilled	thrilling

4.11 Fill in the blanks using one of the adjectives from the above table.

1. Are you in the book?
2. I am so to hear from you again.
3. She told him an story.
4. They are suchcars. I am to buy one .
5. The questions are not easy, They are rather
6. Stop yelling at him, It is so
7. We like vacations. They are
8. How could you pass such a difficult exam? Youme.
9. His speech was

4.12 Order of Adjectives:

When we have a number of adjectives in one sentence, they are usually arranged as follows:

THE ORDER OF ADJECTIVES									
Determiner		Physical Description				Origin	Material	Qualifier	Noun
		Size	Shape	Age	Colour				
A	beautiful			Old		Italian		touring	car
An	expensive			new			silver		mirror
Four	charming		long-stemmed		red		silk		roses
Her			short		black				hair
His		big		Old		English			dog
Those			square				wooden	hat	boxes
That	renovated	little						hunting	cabin
These		tall		young		American		basketball	players
Some	delicious					Iraqi			food

Exercise

4.13 Re-arrange the following adjectives in the right order.

1. little , cat , Persian, her .
2. song , British, an ,old .
3. starry, some , nights , eastern .
4. apples , red , many, Lebanese.
5. black, American , big , car , a.
6. interesting , French ,an, film , horror.
7. bulldog, German, horrible , a.

4.14 IF (Conditional)

1. The zero case of conditionals is achieved when the tense in both parts of the sentence is the simple present:

'If' Clause	Main Clause
If + simple present,	simple present
If you heat ice,	it melts.
If it rains ,	you get wet

2. The first case of conditionals is achieved when the tense in the 'if clause is the simple present, and the tense in the main clause is the simple future

'If' Clause	Main Clause
If + simple present,	Simple future
If it rains,	you will get wet
If you don't hurry,	we will miss the train.

In these sentences, the time is the present or future and the situation is real. They refer to a possible condition and its probable result.

Exercise

4.15 Complete the following sentences using the correct tense for the verbs in brackets.

1. Don't give up . If you study hard, you(pass) the exam this time .
2. If they (not eat) well, they(get)sick .
3. If you throw the cup, it (break) .
4. Be careful! If he(touch) the wet paint, your hands (get)soiled .
5. Don't insult him again, He is only a kid. If you do so, I(not forgive you).
6. Why is she so angry? If she does not calm down, she (not understand) his viewpoint .
7. If you don't mind your own business, I (ask) you to leave the place immediately .

4.16 Safety Corner

- Always walk on the pavement or designated walkway.
- Enter the street only at a designated crosswalk. Crossing at any other place increases the likelihood of an accident.
- Pay close attention to all posted signs. This will reduce the chance of an accident.
- Avoid going near a construction zone whenever possible.
- Never enter a construction site. Heavy machinery can cause you harm.
- Construction vehicles move quickly and suddenly. Always be prepared for unexpected hazards.
- Avoid using a cellular phone when walking near a construction zone.
- Staying alert to your surroundings reduces the possibility of accidents.

4.17 If you were an architect, how would you design your house?
Answer the following questions to describe your dream house.

1. Would you design a one-storey house or a two-storey one?
2. How many rooms would your house contain?
3. Would the rooms be big or small? Why?
4. What colour would these rooms be? White, pink, light green or light blue?
5. Would you paint all the rooms in the same colour? Why?
6. Would the rooms have a view on a garden? If so, give a short description of that garden.
7. How about the garage, would your dream house have one or not?



Unit five

Textile Industries

Vocabulary

5.1 Identify which textile is from plants and which is from animals.

- * wool * silk
- * cotton * linen

5.2 Complete the sentences with words from the box.

exports fibre weaves cloth import income

1. My mother-----me a new sweater.
2. We-----a lot of cars from Europe.
3. Iraq-----oil to different countries.
4. Ahmed works overtime to increase his-----.
5. The-----is made into fabric.
6. She bought thick-----to make a suit.

5.3 Give the adjective to the following nouns.

Example: silk – silky

1. wood
2. wool
3. stickiness
4. fibre
5. cotton

Speaking

5.4 Discuss the following questions.

- 1- What is your favorite textile(s)?
- 2- What textile products do you prefer to wear in summer?
- 3- What textile products do you prefer to wear in winter?
- 4- Which textile industries are found in Iraq? Give examples.
- 5- What textile products does Iraq import?

Reading

5.5 Read the text and match the questions with the kind of textile

Which cloth:

- * was the first textile spun by man? Linen
- 1. was first made in China?
- 2. was based, exchanged and finished in Yorkshire?
- 3. was first imported to England in the 16th century?

5.6 Read the text and check your answers.

The steps followed in any textile making are:

1. first to harvest and clean the fibre or wool
2. second to card it and spin it into threads
3. third to weave the threads into cloth
4. and finally to fashion and sew the cloth into clothes

Britain's Lead in Textile Machinery

During the early eighteenth century, Britain was determined to dominate the textile industry. Britain had the power loom, a steam-powered, mechanically-operated version of a regular loom for weaving. Britain also had the spinning frame that could produce stronger threads for yarns at a faster rate.



The Woollen Industry was established in the Middle Ages using home-grown wool. Production was based on the domestic system and Leeds in Yorkshire became the market centre where the cloth was exchanged and finished. The output of broadcloth in the area rose from 30,000 pieces in the late 1720s to 60,000 pieces in the 1740s. Leeds now covered 60 acres and by 1770 the town had a population of 16,000. Thirty years later, this figure had doubled. After the invention of the Spinning Jenny some cloth merchants became factory owners. Power-loom weaving was introduced in the 1820s.

Silk Industry: silk filament is a fine, tough, elastic fibre produced by caterpillars. For thirty-five days after it has hatched from the eggs laid by its parent moth, the caterpillar, normally referred to as a silkworm, and spends its time eating the leaves of a mulberry tree. Then, in the course of two or three days' spinning, it surrounds itself in a cocoon

which consists of a continuous and very fine filament of silk. The silkworm then turns itself into a moth, which escapes by making a hole through the cocoon.

The silk filament was first made into cloth in Ancient China. First the cocoons were placed into very hot water to soften the sticky gum, sericin that holds the filament together. The silk filament, which can be as much as a mile long is then put onto large, reels, known as swifts.

Cotton Industry: cotton is a white fibrous substance composed of the hairs surrounding the seeds of the cotton plant. It was first imported to England in the 16th century. Initially it was mixed either with linen or worsted yarn. By 1750 some pure cotton cloths were being produced in Britain. Imports of raw cotton from the West Indies and the American Colonies gradually increased. By 1802 the industry accounted for between 4 and 5% of the national income of Britain. Production had grown to overtake the woollen industry. By 1830 more than half the value of British home-produced exports consisted of cotton textiles.

Linen Industry: flax, a slender blue-flowered plant cultivated for its strong woody fibre, was used for making linen. Evidence from early Egyptian tombs suggests that flax was the first textile spun by man. The growing of flax and the making of linen was probably introduced to England by the Romans.

By the Middle Ages restrictions were placed on flax growing in order to help the woollen industry. However, people in Ireland were encouraged to produce flax and by the 18th century, the country became the largest producer of linen in the world.

5.7 Read the text again. Complete the following sentences.

1. After the fibre is spun into threads, they are woven into.....
2. Britain dominated the textile industry during the.....
3. Power- loom weaving was introduced in the.....
4. The caterpillar is referred to as a.....
5. Britain imported raw cotton from.....
6. Linen was introduced to England by the.....

5.8 Find the opposites in the text for the following words.

- slow – fast
- late –
- weak –
- black –
- east –
- large –

5.9 Find the words in the text for their definitions.

1. A small long thin insect with many legs that eats plants and develops into a butterfly or moth.
2. A very thin fibre.
3. A long thin fibre used for sewing pieces of cloth together or for weaving.
4. A cover that the young of some insects make around themselves when they start changing into their adult form.
5. A type of cloth or other material made of fibre.
6. A plant with small blue flowers that is grown for the fibres in its stem and the oil in its seeds.
7. Woven or knitted cloth.

Pronunciation

5.10 English Diphthongs

1. /ai/

- a. It is found in the words that end with (ight):
light sight might right height night fight. Except for (eight weight)
- b. The letter (y) when it is preceded by a consonant sound at the end of the word:
by my shy fly why apply dry deny try sky cry
- c. The letter (i) + a consonant letter + (e):
ice mine fine five wife time nine side like write drive
Except for: famine forgive give live
- d. The letters (-ign) at the end of the word:
sign design resign cousin
- e. It's found in the following words:
island silent I science isosceles bicycle biology miner prior
triangle diameter high kind mind tie die lie

2. /ou/

- a. The letters (oa): boat coat load road oath
- b. The letters (old): cold old gold hold told sold
- c. The letter (o) + a consonant letter + (e): home rose
Except for (love come some done gone move prove lose more)
- d. The letters (ow): low snow blow own grow know tomorrow
show slow borrow below (saw, sew)
- e. It's also found in the following words with the letter (o): oh go
so only open over most post both comb don't toe though
although those.

3. /ei/

- a. The words that end with (ay): say day may way pay
- b. The letters (ai) when they are not followed by (r): aim claim pain main maid fail.
Except for (said mountain portrait certain)
- c. The letter (a) + a consonant letter + (e): wake cake face page age race take rate fate.
Except for: (have manage damage courage)
- d. The letters (tion) preceded by (a): station nation dictation classification education explanation examination.
- e. The letter (a) in the following: able ache ancient April arrange lazy strange taste flavour favor major ratio.
- f. It is also found in the following: break great steak eight weight neighbour obey convey.

4. /au/

- a. The two letters (ou) not followed by the letter (r): out doubt about shout loud cloud found round sound mountain
Exceptions : (hour our sour)
- b. The two letters (ow): cow how now vow vowel owl bow (v.) flower power tower brown crown drown frown down frown allowed crowd

Grammar

5.11 If- Clause (Unreal Conditional)

Unreal conditional sentences express imaginary situations. The if clause introduces the imaginary condition or even (it is not true at present time). The main clause expresses the imaginary result (what would or could happen after the if clause).

1. If she found another apartment, she would move. (She hasn't found an apartment, so she isn't moving.)

2. If I had a problem, I'd ask for your help. (I don't have a problem right now, so I don't need help.)
3. If we had the money, we could buy a new car. (Right now we don't have the money, so we can't buy a new car.)

When the if- clause comes first, a comma is used before the main clause.

- a. If Adil had enough money, he would buy a laptop.
- b. Adil would buy a laptop if he had enough money.

5.12 Exercises

1. Correct the form of the verb.

- If this room was tidy, I (find) things.
If this room was tidy, I would find things.

1. If the phone worked, we (call) you.
2. If it (rain), I'll take the washing in.
3. We'd have plenty of time if we (meet) at seven.
4. If this spoon was silver, it (be) worth a lot.
5. I (ring) back if Susan John calls.

2. Choose the correct response.

1. I wish we had more time.
 - a. Yes. If we do, we can walk to beach.
 - b. Yes. If we left early, we wouldn't be late.
2. We're all ready to go.
 - a. Good. If we leave now, we won't be late.
 - b. Good. If we left in time, we wouldn't be late.
3. Diane's going to quit her job.
 - a. Really? What will she do if she doesn't find another one?
 - b. Really? What would she do if she didn't find another one?

4. It's a pity your mother can't come.
 - a. Yes. If she comes, she'll have a great time.
 - b. Yes. If she came, she'd have a great time.
5. I think I'll go to the party.
 - a. Great! If you go, I'll go.
 - b. Great! If you went, I'd go.

3. Use your own ideas to complete the following sentences.

1. If you did more exercises, you'd feel better .
2. He'd be very angry if -----.
3. If we didn't go to work tomorrow, -----.
4. Would you go to the market if -----?
5. If he borrowed new books, -----.
6. We'd go out for dinner if -----

5. 13 Safety corner

1. Head protection needs to be worn on job when there are potentials of falling objects, hair entanglement, burning, or electrical hazards.
2. Eye protection needs to be worn when there are potentials of hazards from flying objects or particles, chemicals, glare, or dust.
3. Protective footwear needs to be used to protect from falling objects, chemicals, or stepping on sharp objects. Athletic or canvas-type shoes shall not be worn.
4. Protective gloves are required against a hazard.

Writing

5.14 Write a short paragraph about "*Importance of Fabrics in our Daily Lives*", by answering the following questions:



1. Why do we need fabric in our daily lives?
2. In what ways is fabric used in our homes?
3. How do fabrics protect us from weather conditions?
4. Why are natural fabrics considered more eco-friendly than synthetic ones?

UNIT SIX

Internal Combustion Engines

Vocabulary

6.1 Complete the table by adding the suitable suffix to the verbs to change them into nouns. You may need to change the spelling.

Verb	Noun
classify	classification
connect	-----
exist	-----
ignite	-----
mix	-----
explode	-----

6.2 Complete the following sentences. Use the nouns from exercise 6.1

ex: we can put motor cars into two classifications.

1. A big was resulted from mixing two chemicals .
2. Life on the moon is doubtful.
3. The white colour is produced by all the other colours .
4. When fuel and air are mixed, an will happen in the cylinder.
5. The of wiring will be achieved soon.

6.3 Fill in the blanks with the suitable word from the list and write the whole sentence in your copybook .

by means of	spark	increases	valves	fuel
changes	classify	exploded	sparks	discharged

1. The plugs are connected with an electric source .
2. We raise watera pump .
3. The gas goes out through the
4. Fog during winter's mornings.
5. I went to the station to fill my car.
6. We can secondary education into academic and vocational.
7. The tube was from the liquid
8. The fuel into gas when ignition is done.
9. As soon as you turn the dynamo on , the spark plug.....
10. Many people were hurt when the boiler



Speaking

6.4 Discuss these questions:-

- 1- What is the popular fuel used for automobiles ?
- 2- Is gas used for engines nowadays?
- 3- What are the spark plugs connected with ?
- 4- What is the use of the crank shaft ?
- 5- Is an electric source necessary for internal combustion engines?

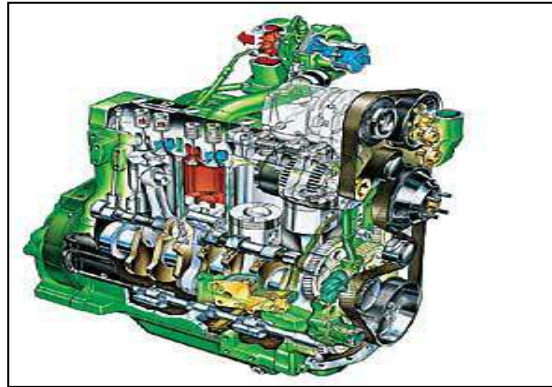
Reading

6.5 Ask and answer about the internal combustion engines :

- 1- How do internal combustion engines work?
- 2- What are the main fuels used in internal combustion engines?
- 3- Is there any relationship between the drive speed and the horsepower?
- 4- What is there in each cylinder ?
- 5- What is the function of the dynamo?

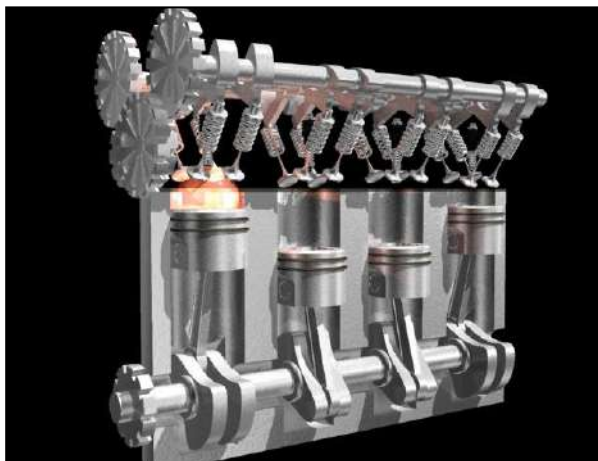
6.6

Internal Combustion Engines



Internal combustion engines are called so because they do not work unless the fuel is burnt inside chambers called cylinders and the fuel changes into gas when it explodes in. Internal combustion engines are classified into two types; the first one is according to the fuel that is used. Some engines use gasoline, others use fine petrol (benzene) and nowadays gas is also used. The second one is according to the number of engine chambers (cylinders).

There are engines with twenty-four cylinders descending to a single one . Whenever the cylinders number increases , the drive speed and horse power increase too. In each cylinder there is a piston which turns the crank shaft located beside the cylinder.



The spark plugs are connected with an electric source to produce a spark. The engines that work with gasoline, have no plugs, instead there is a nozzle in every chamber where ignition happens by means of the pressure made by the piston.

In each cylinder of a motor -car engine, something like the striking of the match goes on. When petrol mixes with air it is pushed to the top of the cylinder , the spark plug sparks . It makes a tiny flame , then the petrol and air explode (catch fire) suddenly pushing the piston down. This push is used later to drive the flywheel by means of the crank shaft.

When the explosion ends in the cylinder, the used gases go out through the valves and then through the exhaust pipe, that is, the residual gases are discharged.

6.7 Complete the following sentences according to the reading passage.

- 1-Internal combustion engines are classified into
- 2-In a motor – car , the chamber is
- 3-The spark plugs are connected with a
- 4-When petrol is mixed with air, it is pushed to the top of
- 5-When the explosion ends in the cylinder, the used gases go out through

6.8 Answer the following questions.

- 1- What is there in engines that use gasoline instead of the plugs ?
- 2- Is air necessary for the internal combustion engines ?
- 3- What makes the crank shaft turn ?
- 4- Where are the air and petrol mixed ?
- 5- What is the function of the spark plug ?

6.9 Write True or False and re – write the false ones correctly.

- 1- In the internal combustion engines , the fuel is burnt outside chambers
- 2- Gas nowadays is used to move motor – cars.
- 3- In each cylinder there are two pistons which turn the crank shaft.
- 4- Plugs are non - existent in engines that work on gasoline.
- 5- When the spark plug sparks, it makes a tiny flame.
- 6- The residual gases are discharged through the exhaust pipe.
- 7- The smallest engine has a single cylinder.

Pronunciation

6.10

5- /oi/

- 1- the letter (o+i) oil boil coil soil noise coin join ointment moist
- 2- the letter (o+y) boy toy employ enjoy destroy voyage deploy

6- /iə/

- 1- The letters (ear) ear clear dear fear near hear bear

Exceptions: bear pear wear swear

The letters (ee) cheer deer engineer peer

The letters (ere) here mere severe

Exceptions: there where were

interior exterior inferior superior

fierce pierce idea we're museum

7- / eə / The letters (air) air chair affair hair stair pair repair dairy

The letters (are) bare care compare dare hare fare spare share rare beware

Exception: are

The letters (eir) heir their

bear pear wear swear there where various area aerial

8- / uə /

The letter (u) and (w) cure secure obscure endure pure sure ensure you're mature newer jewel steward

doer fuel jury tourist curious

Exception: few

Grammar

6.11 Adverbs: Adverbs (e.g. quickly, carefully etc.) describe verbs and tell us how somebody does something or how something happens. There are three kinds of adverbs:

1. **Adverbs of manner:** most of them are derived from adjectives by adding the suffix (ly) at the end of most adjectives .

Ex : hopefully skilfully , slowly , quickly

2. **Adverbs of place:** in the school , in the house , outside, inside , in the street ,above ,below , at the top , at the bottom ,

3. **Adverbs of time:** usually , always , often , sometimes , yesterday, last, ago , tomorrow , tonight , next...., soon , yet , already , just , now , at the moment , since , for , before , after ,

These words are both adjectives and adverbs: hard, fast, early, high, late, near, long, straight, right, wrong.

1. She is a **hard** working student.

She works **hard**.

2. I came on the **fast** train.

It went quite **fast**.

Good is an adjective and **well** is its adverb.

He is a **good** mechanic. He repaired my car **well**.

A.

- 1- Basim is careful and he drives carefully.
- 2- The fitter is skilful and he works skilfully.
- 3- This woman is beautiful and she dresses beautifully.
- 4- Mazin is slow and he writes slowly.
- 5- The typist is good and she types well.



B.

- 1- We go to school every day.
- 2- The doctor examined the patient yesterday.
- 3- I shall check the machine tomorrow
- 4- All the engineers are working now.
- 5- She has not finished her homework yet.



C.

- 1- I meet him at the laboratory every day.
- 2- They install the machines in the factory.
- 3- He lives in the house which is built of stone.
- 4- He is the man whose son goes to the university.
- 5- Linda went out of the office.

Exercise

6 12 Re-write the following sentences as in the example below:

- 1- The electrician fixed a new switch (last week . carefully . on the wall)
The electrician fixed a new switch carefully on the wall last week.
- 2- They operate the machines (every day . quickly .in the workshop).
- 3- The mechanic will make a groove (tomorrow .in this piece . well
- 4- He covered the wire (last week. rapidly .on the wall).
- 5- She dresses (beautifully. in the party .every holiday).
- 6- The students work (every day . in the lab . skilfully)

6-13 If Clauses (impossibility)

In this case , the conditional verb (cause) is in the Past+perfect (had + p.p) ,while the main clause (effect) consists of (should , would , could or might + present perfect) .

If + subject + { had + p.p } , subject +

should	}	+ have	+ p.p
would			
could			
might			

A.

1. I should have gone to the party if he had invited me.
2. If I had had much money, I'd have bought a car.
3. She'd have attended the lecture if she had not been ill.
4. If they had brought the spare parts, they'd have repaired the machine.
5. You'd have caught cold if you had gone out.

B- Complete the following sentences .

1. If he had oiled the machine, it
2. He would have painted the house if he
3. If they had maintained the engine, it
4. She would have finished the report if she
5. If the switch had not worked, I..... .

C- Join each pair of the following sentences with (if).

1. Sameer had read English well . He might have succeeded.
2. We could have improved production . We had obtained modern machines .
3. He had been thirsty . He could have drunk some water .
4. The engineer had misused the motor . He might have told the boss.
5. They 'd have held a party . They 'd won the match.

6.14 Safety Corner

1. Check the oil level and water of the engine every day .
2. Change c – oil for diesel engines within the given period
3. Check your motor – car regularly .
4. Use special oil for the brake case .
5. Avoid driving your car while you are sleepy or tired .

Writing

6.15 Write a short paragraph on (motors cars) try to answer the following questions.

- 1- Do you have a car? What type is it?
- 2- How many cylinders does its engine have?
- 3- How does ignition happen?
- 4- Do you add oil to the engine? Why?
- 5- What is the importance of water to the engine?
- 6- How does the engine run?
- 7- Do you check the oil and water of the engine regularly?

6 .16 Imagine you are an owner of a spare parts store .You have received an e.mail from a company purchasing spare parts of cars telling you the need of these spare parts .

Send an e.mail to this company . Write in it a list of the engine spare parts you need to your store .



Revision 2

1. Complete the following sentences. Use the correct form of the verbs in brackets.

1. If I finish work early, I (go)----- to the Internet café.
2. If he (eat)----- rice every day, he'll get board.
3. If they (have)----- the right equipment, they'd build huts.
4. I'd have left the office much earlier if I (have)----- the choice.
5. She'd become famous if she (take part)----- in a TV show.
6. If they hadn't been in a restaurant, they (behave)----- very differently.

2. Find and correct the errors in the following sentences.

1. The children became terribly excited when it started to snow.
2. Sami drives very slow.
3. Drive careful! The roads are muddy.
4. Don't hit the window hardly or the glass will break.
5. Ask Jalal to play the guitar. He plays beautiful.
6. I think football is a fascinated game.

3. Read the following sentences and complete the table .

- a. He ate well quickly .
- b. He ate well .

Adjective	Adverb of manner
quick natural traditional good sudden cultural careful	quickly

4. Complete the following sentences with the words in the box.

flames engine manager fibres clothing
infrastructure

1. Nadia is a----- of a local bank.
2. They spend a lot of money on food and-----.
3. Smoke and-----were coming out of the burning building.
4. The-----of the country is developing.
5. Man- made-----like nylon are easy to clean.
6. Please turn your car-----off while waiting at the petrol station.

5. Encircle the correct word .

1. Look! There's a rat! I'm angry/ scared.
2. This lecture is awful. They're bored/ scared.
3. Our teacher smiles a lot. He's always happy/ unhappy.
4. I don't know what to do. I'm happy/ confused.
5. My brother's birthday tomorrow. He's really excited/ angry.
6. Sami has got a problem. He's worried/ happy.
7. Susan hasn't got friends at work. She's excited/ unhappy.
8. I haven't got my keys with me. The manager is angry/ confused.

6. A. Answer these questions about something personal that is important to you . For example, a piece of clothing or jewellery or a piece of furniture.

- What is it?
- Where is it from?
- What's it like? (shape, size, colour, age....)
- Why is it important to you?

B. On a separate sheet of paper, write a paragraph about the object.

My gold bracelet is very important to me. It's Turkish. It isn't old, but it's beautiful.....



Mini Dictionary

According to	/əko: dɪŋ tu:/	طبقا إلى
adopt	/ ədɒpt /	يتبنى
absorption	/ əbsɔ:pʃən /	امتصاص
agency	/ eɪdʒənsi /	وكالة
architect	/ a:kɪtekt /	مهندس معماري
assembly	/ əsembli /	تجمع
caterpillar	/ kætəpɪlə /	اليسروع (يرقان الفراشة)
caustic soda	/ ko:stɪk səʊdə /	الصودا الكاوية
chamber	/ tʃeɪmbə /	غرفة
civilian	/ sɪvɪliən /	مدني
classify	klasɪfai / /	يصنف
cocoon	/ kəku:n /	شرنقة
combustion	/ kəmˈbʌstʃən /	اشتعال
concepts	/ kɒnsepts /	مفاهيم
conscience	/ kɒnʃəns /	ضمير
construction	/ kənˈstrʌkʃən /	بناء
crank	/ krɒŋk /	ذراع تدوير
crude	/ kru:d /	خام
crystallization	/ krɪstɪlaɪzeɪʃən /	بلورة
cultivate	/ kʌltɪveɪt /	يحرث
cultural	/ kʌltʃərəl /	ثقافي
cylinder	/ sɪlɪndə /	اسطوانة
dams	/ dæmz /	سدود
declaration	/ dekləreɪʃən /	تصريح
determine	/ dɪtəːmɪn /	يقرر
dignity	/ dɪɡnɪti /	كرامة
dioxide	/ daɪɒksaɪd /	ثاني أكسيد
discharged	/ dɪstʃɑ:d /	تُطرح
distillation	/ dɪstɪleɪʃən /	تقطير
distinction	/ dɪstɪŋkʃən /	تمييز
documents	/ dɒkjumənts /	وثائق
domestic	/ dəˈmestɪk /	منزلي / عائلي
dominance	/ dɒmɪnəns /	هيمنة
dominate	/ dɒmɪneɪt /	يسيطر، يهيمن على
endow	/ ɪndəʊ /	يهب
execution	/ ɛksɪkju:ʃən /	تنفيذ / إنجاز
exhaust	/ ɪɡzɔ:st /	عادم
existent	/ ɪɡzɪstənt /	موجود

expertise	/ ekspə:ti:z /	خبرة
explode	/ ɪkspləʊd /	ينفجر
explosives	/ ɪkspləʊsɪvz /	متفجرات
expression	/ ɪkspreʃən /	تعبير
fibre	/ faɪbə /	خيوط مثل: ألياف
filament	/ fɪləmənt /	خيوط / شعيرة
filtration	/ fɪltəreɪʃən /	ترشيح
flame	/ fleɪm /	لهب
flavours	/ fleɪvəz /	نكهة
Flywheel	/ flaiwi:l /	دولاب تنظيم السرعة
Fuel	/ fjuəl /	وقود
fundamental	/ fʌndəmentəl /	أساسي
gender	/ dʒendə /	جنس
hatch	/ hæʃ /	نفق البويض
horse power	/ ho:s paʊə /	قوة حصانية
human rights	/ hju:mən raɪts /	حقوق الإنسان
ignition	/ ɪɡniʃən /	احتراق
insecticides	/ ɪnsektɪsaɪdɪz /	مبيدات حشرية
internal	/ ɪntə:nəl /	داخلي
legal	/ li:ɡəl /	شرعي
linen	/ lɪnɪn /	كتان
litigation	/ lɪtɪɡeɪʃən /	الإجراءات القضائية
loom (n.)	/ lu:m /	تول
loom (v.)	/ lu:m /	ينسج على تول
maintain	/ meɪnteɪn /	يديم
mix	/ mɪks /	يخلط
moth	/ moθ /	عثة، فراشة
nozzle	/ noʊzəl /	فوهة
organic	/ ɔ:ɡənɪk /	عضوي
overrun	/ əʊvərʌn /	يجتاح
oversight	/ əʊvəsaɪt /	سهو ، خطأ غير مقصود
participate	/ pɑ:tɪsɪpeɪt /	يشارك
piston	/ pɪstən /	مكبس
political	/ pə'lɪtɪkəl /	سياسي
portions	/ pɔ:ʃən /	نسب
pressure	/ preʃə /	ضغط
reactions	/ rɪækʃənz /	ردود أفعال
religious	/ rɪlɪdʒəs /	ديني
renovation	/ renə'veɪʃən /	تجديد

residual	/ rɪzɪdʒuəl /	متخلف ، محترق
sericin	/ serəsin /	مركب هلامي يستخرج من الحرير
shaft	/ ʃa:ft /	محور
silkworm	/ silkworm /	دودة الحرير ، دودة القز
slender	/ slendə /	رفيع
soda ash	/ səʊdə aʃ /	كربونات الصودا
source	/ so:s /	مصدر
spark plug	/ spa:k plʌg /	شمعة القدح
spirit	/ spirit /	روح
sticky	/ stɪki /	لزج ، دبق
striking	/ straɪkɪŋ /	قدح ، اشتعال
textile	/ tekstail /	نسيج ، منسوج
tiny	/ taɪni /	صغير جداً
traditional	/ trədɪʃɪnəl /	تقليدي
transform	/ transfɔ:m /	يحوّل
universal	/ ju:nɪvə:sɪl /	عالمي
valve	/ valv /	صمام
wax	/ waks /	شمع
worsted	/ wʊstɪd /	الغزل الصوفي
yarn	/ ja:n /	غزل (قطني او صوفي)
processes	/ prəʊses /	عمليات
promote	/ prəməʊt /	يعزز