كلية العلوم

القسم : الفيزياء+الكيمياء

السنة : الاولى

المادة : انكليزي1

المحاضرة : مقره

{{ A to Z مكتبة }}
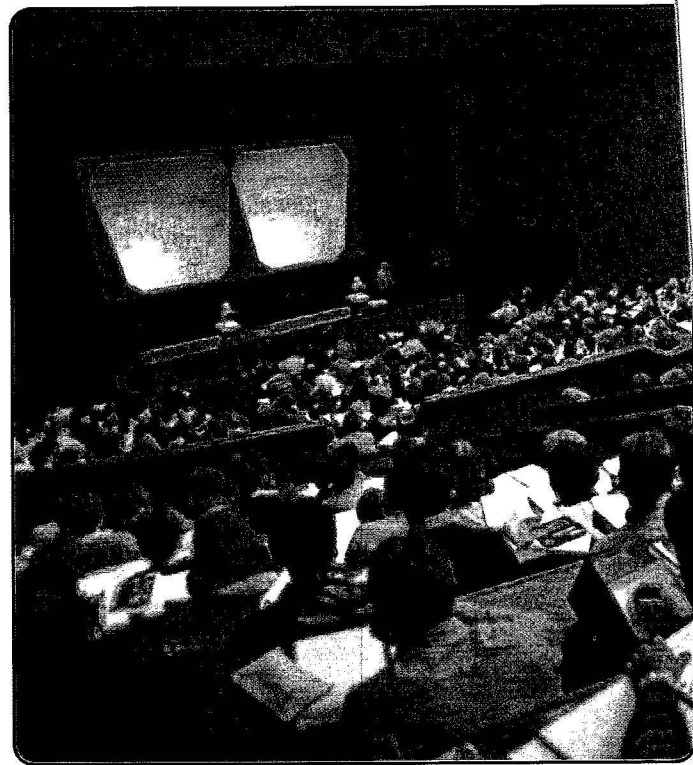
Facebook Group : A to Z مكتبة

How Can You Remember Things for Ever?

Figure 1: % of learning remembered
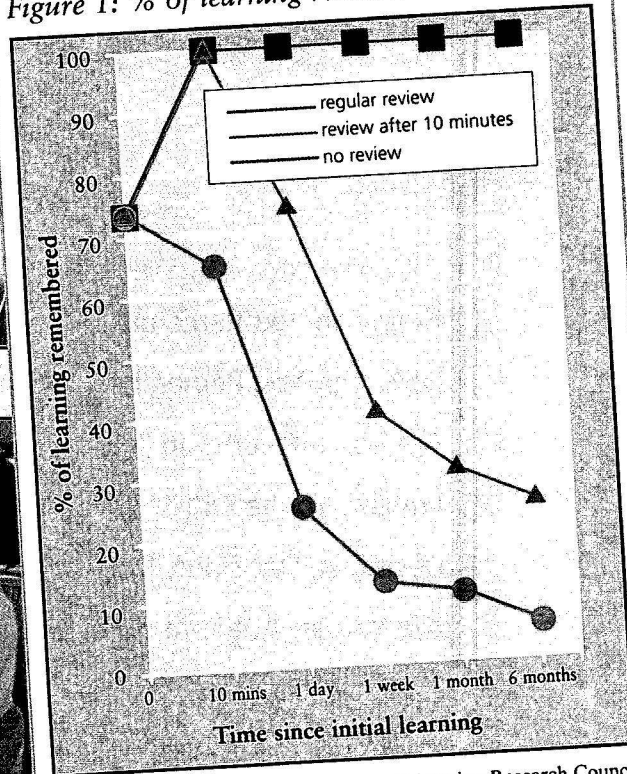
Source: Education Research Council

What happens after you have learnt something? Do you remember it for ever? Or do you forget it over time?

You forget it, of course (see Figure 1). As you
5 can see from the red line on the graph, within 24 hours of learning, you have forgotten nearly 80% of the new information. After a month, only about 10% remains.

How can you stop this loss of information?
10 You must review new information regularly. The first review should be after 10 minutes. This first review is very important. As the blue line shows, this actually raises memory to 100%. However, if you do not look at the
15 information again, you will still forget nearly everything over time.

You must continue to review the information regularly. If you review again after one day, one month and then six months – see the
20 green line – you should remember the information for ever. The information will now be in long-term memory.

How Can You Remember Things for a Test?

Figure 1: % of revision remembered
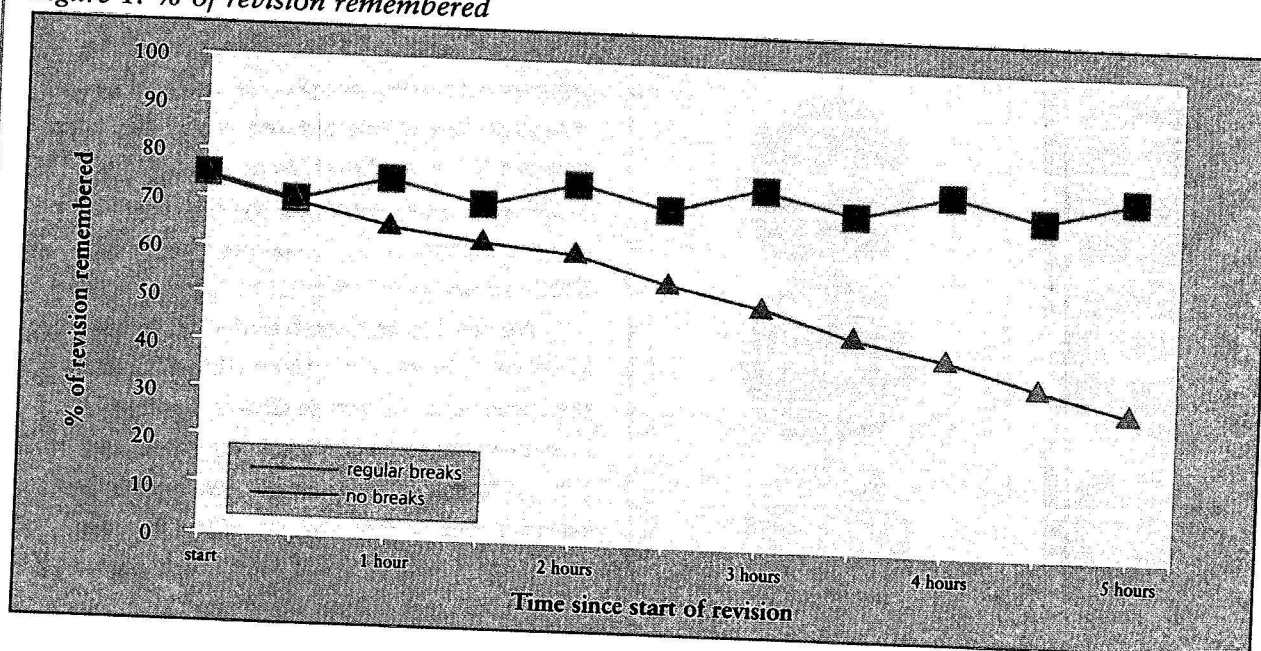
Source: Education Research Council

What happens in our brains during a period of revision? Do we understand things better at the beginning of the revision period, or at the end? What about memory? When we take a test on the information, do we remember things better from the 5 beginning of the revision period, or from the end?

Imagine you have to revise for a test. You decide to work from 10 a.m. until 2 p.m. You probably do not notice any difference in your level of 10 understanding during the revision period. However, in the test, you will probably remember better the things that you revised at 10.30 or 11.00 than the things you revised at 1.00 or 1.30.

Why do you remember some things better than 15 others? The reason is that there is a difference between understanding and memory. Your level of *understanding* probably does not change much during the revision period. However, the percentage of information that you will *remember* falls steeply 20 (see the red line in Figure 1).

What can we do about this? The answer is simple. Take short regular breaks during a revision period. In the example above, take a ten-minute break every hour. Then you will have five short sessions instead of one long one. As the green line shows, 25 you will remember about 75% of the information from the beginning of each session. Overall, your memory will be much better.
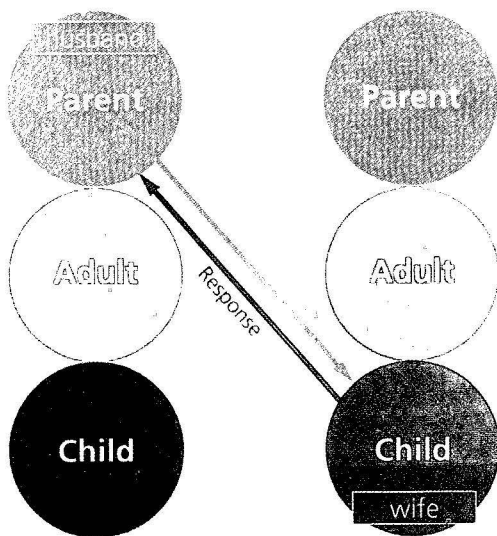
Are You a Parent, an Adult or a Child?

Figure 1: *An example P-C transaction*

Eric Berne was born in 1910 in Montreal, Canada. He moved to New York to train as a psychiatrist in the 1930s. He practised psychiatry in that city before joining the Army

5 Medical Corps in 1943. There was a strong demand for psychiatrists during the Second World War. After the war, he moved to San Francisco. There, he developed a new idea about psychiatric problems. He founded a school (or

10 type) of psychiatry called Transactional Analysis. He died in California in 1970.

Berne's new idea was that people have problems in their life because of their relationships with other people. Until then, most

15 psychiatrists believed that problems came from inside the person's head – in his or her own brain. However, Berne believed that problems arise because of the transactions – or conversations – between people. He pointed

20 out that people often play games with their friends, family and workmates. They try to feel better by making the other person feel worse.

Berne developed a simple model of the behaviour between people. He said that people always behave in one of three ways. They act as 25 a Parent (P), as an Adult (A) or as a Child (C). He explained that a Parent can try to look after another person, or try to control him, while a Child can obey and do what he is told, or rebel.

We can see an example of a P-C transaction 30 in Figure 1. In this case, the husband is clearly the Parent and the wife is clearly the Child. However, the same husband and wife could change roles in a different transaction. People can play roles in this way, switching between 35 Parent and Child, for years without any problems.

However, problems often arise in transactions. For example, difficulties appear if both people in a transaction want to be the Parent or both people want to be the Child. 40 Problems also arise if one person wants to behave like an Adult and the other person responds as a Parent or a Child, as in Figure 2.
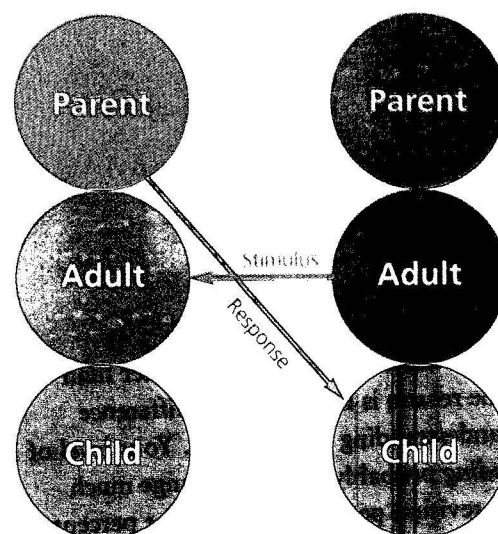

Figure 2: *A mixed transaction*

Decisions, Decisions, Decisions

'Digest' problems to make good decisions

Table 1: The DIGEST process

D	efine the problem
I	magine a successful solution
G	enerate alternative possibilities
E	valuate the possibilities
S	elect the best one
T	ell people your decision

HOW DO YOU MAKE DECISIONS? A lot of the time people make decisions without really thinking about it. They use their instinct, and they just hope that they have done the right thing.

5 However, this kind of decision-making is no good in business, and it's probably not the best way to decide big things in our everyday lives either. Good managers recognise that decision-making is not a moment in time but a process. If you follow the

10 process carefully, the decision will usually be a good one.

We can summarise the process of good decision-making in the acronym DIGEST. What does DIGEST mean? In general English it has a

15 number of meanings, including 'to break down food in the stomach,' but in this case, the word just helps us remember the six parts of the process.

Firstly, **define** the problem. Say what you are really trying to do. Secondly, **imagine** a successful

20 solution. This is usually easy. (If it isn't, go back to the first stage again and define the problem again.) Thirdly, **generate** alternative possibilities. There is very rarely only one possible solution to a problem. Think of several solutions and you are more likely to

25 find a good one in the end. Fourthly, **evaluate** the possibilities – look at each one carefully and consider the good and the bad points about it. Fifthly, **select** the best one. (Again, an obvious stage.) Finally, **tell** people your decision. You should

30 certainly do this if the decision affects other people. Even if it doesn't, you should tell other people. Why? Because it might be difficult not to change

your decision later, even if it is the right thing to do. The more people you *tell* about your decision, the harder it is to change your mind later. 35

Let's look at an example of the process in action. First, the problem. Let's say that you keep arriving late for morning lectures. You imagine a successful solution to the problem. That is easy in this case. You need to arrive 10 minutes before the 40 first lecture. However, perhaps you live a long way from the college and the first lecture begins at 8.00. You need to generate some alternative possibilities. You could take a bus, but you don't like public transport ... Stop! You must not start evaluating the 45 possibilities until you have finished generating them. Why? Because there are two sides to the human brain – a *creative* side and a *logical* side. It is impossible to get both sides working well at the same time. In this case, you need the creative side first, to generate 50 the alternatives, then the logical side, to evaluate each one. So, make a list of possibilities – taxi, father's car, hire a driver, take the bus, stay overnight with a friend, etc., and then go through them one by one, thinking of any difficulties. You could give each 55 possibility a number of crosses, one for each difficulty. Finally, when you have evaluated all the possibilities, you need to select one. And that's it. Well, not quite. Tell people about it, remember.

You will not make perfect decisions every 60 time, even with this decision-making process. However, there is an old saying in business: 'There is only one thing worse than a bad decision, and that is no decision at all.'

An Encyclopedia of
SCIENCE

ecology The study of the relationship between living things and their ⇒**environment**. We learn from ecology that living things depend on each other to survive. This is
5 because all living things are involved in ⇒**food chains**, ⇒**food webs** and ⇒**food pyramids**.

ecosystem An area with a particular ⇒**climate**. A particular ecosystem supports a particular
10 group of animals and plants. Climate change may destroy an ecosystem, e.g., the advance of a desert may destroy a grassland. People can change or destroy an ecosystem as well, e.g., by building towns in green areas.

15 **environment** The land, water and air where people, animals and plants live. There are a number of different environments on Earth.

food chain This is the way that ⇒**energy** is transferred from one living thing to
20 another. At the top of every food chain there is a ⇒**consumer**. This consumer is often a ⇒**carnivore**. This consumer eats another consumer. This is often a ⇒**herbivore**. At the bottom of every food
25 chain there is a ⇒**producer**. If we remove one part of a food chain, there will be a reaction in another part of the chain.

Figure 1: An example food chain
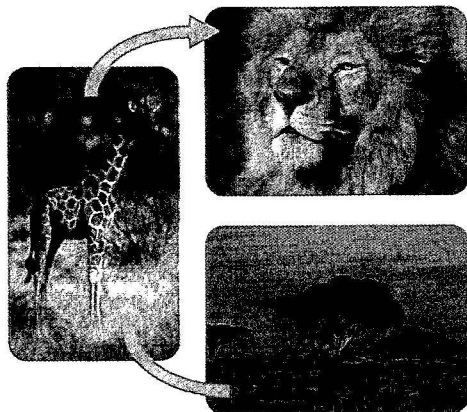
food pyramid A food pyramid is a diagram that shows how much ⇒**energy** is needed to keep a particular animal alive. At each level 30 of a food pyramid there are fewer ⇒**consumers**.

Figure 2: An example food pyramid
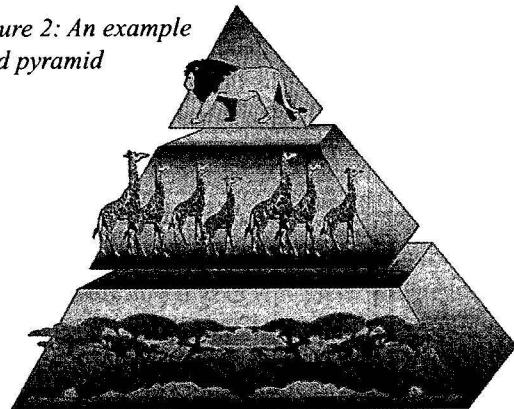
food web This is a connection of two or more ⇒**food chains**. It shows relationships between the animals and plants in a certain 35 ⇒**ecosystem**. Most ⇒**consumers** and ⇒**producers** are part of a food web that involves 10, 20 or 30 other living things. This means it is very difficult in real life to predict the effect of a change in one part of the web. 40

Figure 3: An example food web

giraffe, lion, dog, impala, zebra, wildebeest, tree, grass
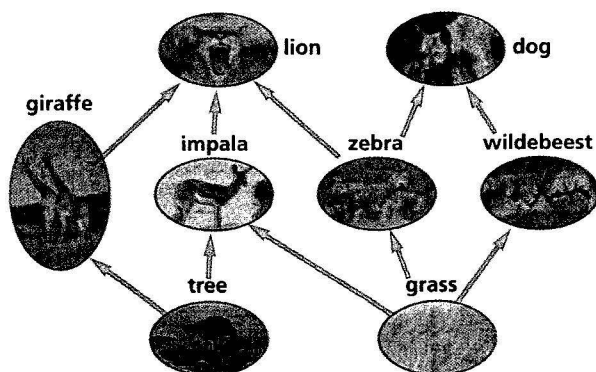
adaptation   Animals and plants show adaptation to their ⇒**habitat**, e.g., fish in deep water have eyes that see better in blue light because there is only blue light deep in the oceans.

biomass   This is the name given to stored solar energy that can be converted to electricity or fuel.

biome   A major ⇒**environment** that covers a large area of the Earth, e.g., ⇒**desert**.

carnivore   An animal that only eats other animals, e.g., a lion.

climate   The normal weather in a particular area. Climate is mainly a combination of location, temperature and rainfall. There are eight main types of climate, including ⇒**desert**, ⇒**polar** and ⇒**tropical**. The climate in a particular area supports particular kinds of animals and plants.

consumer   A consumer can be a primary consumer, a secondary consumer or a tertiary consumer. A primary consumer is normally a ⇒**herbivore**. Primary consumers are animals that eat ⇒**producer** plants. A secondary consumer is a ⇒**carnivore**. It eats primary consumers. A tertiary consumer is also a carnivore. It eats secondary consumers.

desert   In climate terms, an area with less than 25cm of rain a year. Desert climates have hot days and cold nights.
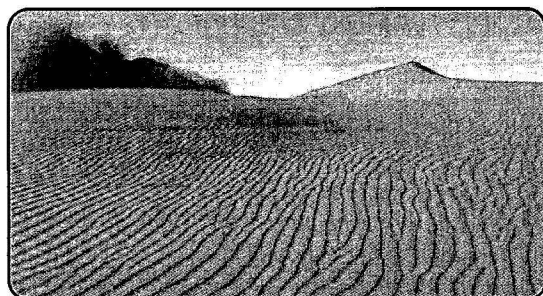
energy   The power to do work. All energy originates from the sun. Some plants change the sun's energy into chemical energy. They are the first link in every ⇒**food chain**.

Gaia   This is an idea put forward by James Lovelock. It suggests that all living things are part of one mass that can change its environment to ensure its survival. This is not necessarily good news for human beings. Gaia might change the Earth in a way that makes it unfit for humans.

habitat   The place where a particular animal or plant can survive.

herbivore   An animal that only eats plants, e.g., a giraffe.

niche   This is the position of a living thing in an ⇒**ecosystem**. It includes the habitat, food and behaviour of the animal or plant.

omnivore   An animal that eats plants and animals, e.g., Man.

photosynthesis   The process that a green plant uses to convert the sun's energy into chemical energy.

*polar*   In climate terms, an area near the North Pole or the South Pole with a maximum temperature of 10°C.

producer   A green plant, e.g., grass, which uses ⇒**photosynthesis** to produce food in the form of chemical energy.

tropical   In climate terms, an area between latitude 10° north of the Equator and 10° south of the Equator. Tropical climates have an average temperature of around 25°C and at least 150cm of rain a year.

Islands in the Sun

TWO MORE HOLIDAY DESTINATIONS for you to consider this week. I decided to look at islands this time – and I chose two very different ones.

5 The first one is in the Eastern Mediterranean. Its capital city, Nicosia, has the unhappy distinction of being the only divided capital in the world, now that Berlin and other more famous places have been united. It is the island 10 of **Cyprus**.

CYPRUS
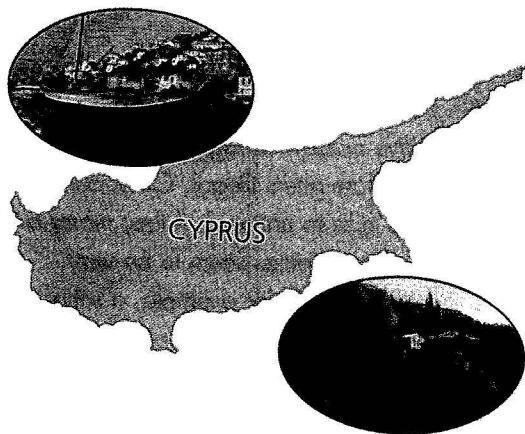
The other island is off the southeastern coast of India. It is the famous island of Serendib, which appears in *The Arabian Nights* and in the writings of Ibn Battuta, amongst others. It is now 15 called **Sri Lanka**.

Neither country is an obvious choice for a holiday. Both islands have had problems recently. In 1974, the island of Cyprus was divided after Turkish troops took over the northern part. Sri 20 Lanka, meanwhile, has had a civil war for the last 20 years. However, there are hopes now of a peaceful solution in both countries, and both islands have a lot to offer the holidaymaker.

Sri Lanka (the name means Beautiful Land) 25 has white sandy beaches, ancient cities and nature reserves. Cyprus (it is the origin of the name of the element copper) has a mainly rocky coastline, but there are some yellow sandy beaches on the coast and beautiful 30 villages in the mountains.

Sri Lanka is much bigger than Cyprus, both in terms of size and population. Cyprus has an area of just over 9,000 square kilometres, whereas Sri Lanka is more than 65,000 square kilometres. Around 800,000 people live on 35 Cyprus, while Sri Lanka's population exceeds nineteen and a half million.

The climates are different, too. Cyprus has a Mediterranean climate (hot and dry summers, cool and wet winters, so avoid November to 40 March), while Sri Lanka has a tropical climate. Average temperatures in the capital, Colombo, range from a pleasant 24 to 31°C, but the problem is the monsoon. There can be heavy rainfall at most times of the year. The best time 45 to travel for a beach holiday is March or April. The rainfall supplies many rivers, including the Mahaweli Ganga. In Cyprus, on the other hand, there are no permanent lakes or rivers, and in fact the shortage of natural water is a constant 50 problem.

Both countries are agricultural. Fifteen per cent of the land in Cyprus is farmed, while 36% of the land in Sri Lanka is used for growing crops and raising cattle. Agriculture is the main 55 industry of both islands. Cyprus is famous around the world for its lemons and oranges, while Sri Lanka exports coconuts.

So which one are you going to visit? There are excellent transport links to both islands, so 60 you have no excuse. Make either Cyprus or Sri Lanka your holiday destination this year.

SRI LANKA

In this theme you are going to read two articles about learning.

Lesson 1: Vocabulary

You are going to learn some of the vocabulary you will need to understand the articles.

Ⓐ Complete each sentence with one of the red words. Make any necessary changes to the form of the word.

1 Are you _____ getting a job this summer?
2 Did you do last week's English _____?
3 Go to your student _____ if you have a problem with your hostel.
4 I _____ my grandfather very much. He is a very good man who always helps people when they are in trouble.
5 My teachers at college are called _____.
6 There are many different kinds of _____. For example, some people are good at Maths, some at languages.
7 Who do you usually go to when you want _____ about your studies?
8 You must work hard at college, but you must _____ too; take a break and enjoy yourself for a while.
9 You should always be _____, even if you are angry with someone.

Ⓑ Write a green word in each space to complete the dictionary entries.

1 _____ 1 the part of the brain where information is kept; *I have a good ~* 2 a particular piece of information; *I have no ~ of my childhood before the age of 5.*

2 _____ keep in the memory; not forget; *I can't ~ where I put my keys.*

3 _____ lose from the memory; not remember; *Don't ~ to call me later.*

4 _____ 1 period of time – *In the short ~ you can remember a telephone number easily, but in the long ~ you will forget it.* 2 one part of a school or college year; *The next ~ starts in September.*

5 _____ the organ of the body that stores information and controls activity; *There is nothing wrong with his ~. He just doesn't work hard enough.*

6 _____ look again at information you have studied before; *Are you going to ~ for the test this weekend?*

Ⓒ Discuss these questions in pairs.

1 Do you have a good memory – for names, faces, numbers, facts?
2 Can you remember anything that happened to you before the age of 5?
3 How do you revise for an exam?

advice *(n)*

advisor *(n)*

assignment *(n)*

consider *(v)*

instructor *(n)*

intelligence *(n)*

polite *(adj)*

relax *(v)*

respect *(v)*

brain *(n)*

forget *(v)*

memory *(n)*

remember *(v)*

revise *(v)*
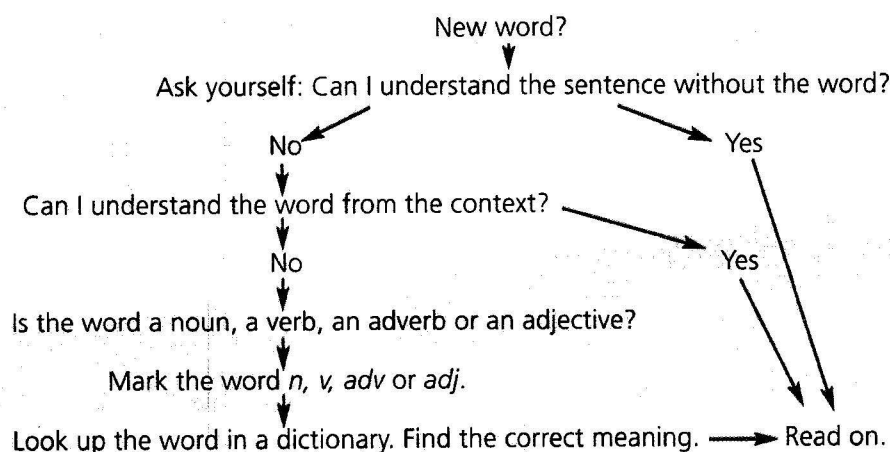
term *(n)*

Lesson 3: Checking skills

(A) What should you look at before you start to read a text? Number these points in order.

___ Look at any illustration(s).

___ Look at the introduction / first paragraph.

___ Look at the title / heading.

___ Highlight the topic sentences of the other paragraphs.

___ Try to predict the content from the illustration(s), e.g., pictures, diagrams and graphs.

___ Try to predict the content from the title / heading.

___ Try to predict the content of each paragraph.

___ Try to predict the information and order of information in the text.

(B) Study the flow chart. Decide if the statements are true or false. Correct the false statements.

1 When you meet a new word in a text, you should immediately look it up in a dictionary.

2 You should never look up a new word while you are reading.

3 Context means the other parts of the text, including pictures, headings and graphs.

4 You should decide the part of speech before looking up a word in a dictionary.

Figure 1: Dealing with new words

New word?

Ask yourself: Can I understand the sentence without the word?

No   Yes

Can I understand the word from the context?

No   Yes

Is the word a noun, a verb, an adverb or an adjective?

Mark the word *n, v, adv* or *adj.*

Look up the word in a dictionary. Find the correct meaning. ⟶ Read on.

(C) What should you do after you have read a text? Complete each idea with words from the box.

highlight notes illustration reaction summary vocabulary

1 Write a _____ of the information in one or two sentences.

2 Draw a _____ or a graph of the information.

3 _____ important points in the text.

4 Make _____ of the information.

5 Add new words to your _____ lists.

6 Think about your personal _____ to the information:

    a Do you think it is true, in general, or for you in particular?

    b Will the information change your behaviour in any way?

(D) Read the text on page 4 of the Reading Resources book again. Then close your books and draw a quick graph of the information in the text.

(E) Will you do anything differently in your studies because of the information in this text? Discuss in groups.

READING SKILLS LEVEL 2 – THEME 1: Education. Revise ... But Take a Break   9

9

Lesson 4: Applying skills

A Do the crossword.

Across

1 The noun form of learn. (8)

2 To lose from your 7 across. (6)

5 To look at information again, particularly for a test. (6)

6 The organ of the body that stores information. (5)

7 The part of the brain where information is kept. (6)

Down

1 The opposite of short-term. (4-4)

3 To keep in your 7 across. (8)

4 To look at information again – another word for 5 across. (6)
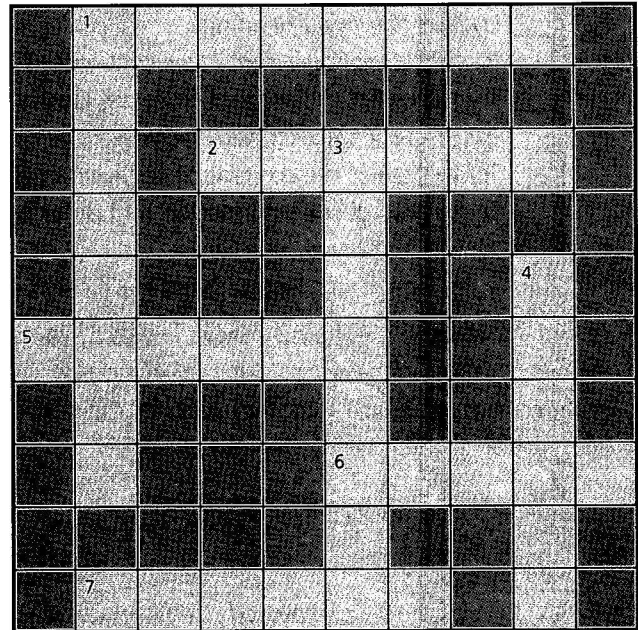
B You are going to read another text about memory. What are you going to do ...

1 before you read? (There are at least eight things!)

2 while you read?

3 after you have read?

Discuss in pairs.

C Read the text on page 5 of the Reading Resources book. Do all the things you have talked about in Exercise B above.

D Work in groups. Compare your ....

1 summaries.

2 highlighted points / notes.

3 underlined words.

E Will the information in this text change your behaviour? Discuss in groups.

F Work in pairs.

Student A

1 Look at the graph on page 4 of the Reading Resources book. Describe it to your partner.

2 Draw the graph that Student B describes.

Student B

1 Draw the graph that Student A describes.

2 Look at the graph on page 5 of the Reading Resources book. Describe it to your partner.

١٠

In this theme you are going to read two articles about relationships.

Lesson 1: Vocabulary

You are going to learn some of the vocabulary you will need to understand the articles.

(A) Cover the red words and try to complete the words in the sentences below. Make any necessary changes to the words. Check your answers with the red words.

1 Do you belong to any social cl_____?
2 What sort of mu_____ do you like?
3 Do you live on the ca_____ or do you live at home?
4 Can you play ch_____ or any other board games?
5 Do you prefer to play sp_____ or to watch?
6 Is there a good re_____ near the college?
7 Have you seen any good fi_____ recently?
8 Are you pl_____ to do anything special this weekend?

(B) Ask and answer the questions in Exercise A in pairs.

(C) Read the text.

1 Complete the text with a green word in each space. Make any necessary changes to the words. You can use the same word more than once.
2 Complete the captions under the sentences with words from the text.

Relationships with other people are never simple. _____ often have problems with their children. Husbands often say, 'My _____ doesn't understand me.' _____ have problems with each other at work.

We can often understand the _____ between two people by analysing the way they talk to each other. A lot of conversations have the form of stimulus–response. In other words, one person says something – the stimulus – and the other person answers – the _____. Sometimes, the _____ is expected, sometimes it is unexpected. An unexpected response sometimes shows that there is a problem with the _____.

Where are my black shoes?	They're just outside the front door.
stimulus →	expected _____

Where are my black shoes?	Why don't you ever put things away in the right place?
stimulus →	_____ response

(D) Which relationship in your life is the most difficult?

campus (n)	
chess (n)	
club (n)	
film (n)	
music (n)	
plan (v)	
restaurant (n)	
sports (n)	
adult (n)	
child/ren (n)	
husband (n)	
parent (n)	
relationship (n)	
response (n)	
wife (n)	

١١

In this theme you are going to read two articles about making decisions.

Lesson 1: Vocabulary

You are going to learn some of the vocabulary you will need to understand the articles.

A Cover the red words.

1 Write five words beginning *emp...* Use three of the words in sentences.
2 What are the *requirements* to be a university teacher in your country? Think about *qualifications* and *experience*.
3 What *benefits* do government employees get in your country?
4 Have you chosen your *career*? What are you going to do?

B Find a green word for each dictionary definition. Check with your own dictionary.

1 _____ choose an action after thinking about it; *The manager has to ~ who to employ for the new job.*

2 _____ work out the good and bad things about an idea, person, etc.; *I have to ~ all the employees.*

3 _____ a formal word for *choose*; *Which employee did you ~ for the management job?*

4 _____ 1. think something is true; *I ~ you are angry about losing your job.* 2. think of something as an example; *~ that you have got a new job.*

5 _____ the answer to a problem; *I can't find a good ~ to this problem.*

6 _____ a number of stages in a particular activity; *Choosing a new employee is a long ~, beginning with the advertisement and ending with the successful applicant being offered the job.*

7 _____ a number of letters that represent an organisation, e.g., WHO = World Health Organisation; you can usually say an ~ as a word.

8 _____ 1. make: *We use this machine to ~ electricity.* 2. think of: *You have to ~ several ideas before deciding which is the best one.*

C What is the process for getting into your college or university? What do you have to decide during the process?

Vocabulary list (sidebar)

benefit *(n)*

career *(n)*

employ *(v)*

employable *(adj)*

employee *(n)*

employer *(n)*

employment *(n)*

experience *(n)*

qualification *(n)*

requirement *(n)*

acronym *(n)*

decide *(v)*

evaluate *(v)*

generate *(v)*

imagine *(v)*

process *(n)*

select *(v)*

solution *(n)*

١٢

Lesson 2: Reading

A Discuss in groups.
1 What was the last big decision you had to make?
2 How did you make the decision?
3 Do you regret the decision now?

B You are going to read an article. Look at the headline, subheading and table from the article.
1 What do think the article will be about?
2 What do you think it will say? Make at least one sentence beginning: *You should* ...

C The writer made a plan for the article.
1 Read the writing plan.
2 Read the topic sentences (under Table 1).
3 Number the topic sentences in the correct order, according to the writing plan.
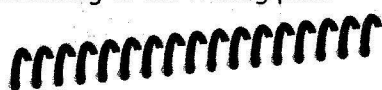
Writing plan:
1. *Introduction*
2. *Introduction of DIGEST*
3. *The process of good decision-making*
4. *An example of good decision-making*
5. *Conclusion*

D Read the article on page 8 of the Reading Resources book. True or false?
1 ___ Using *instinct* means not really thinking about something.
2 ___ Good decision-making only really matters in business.
3 ___ DIGEST is the acronym for a decision-making process.
4 ___ The writer has chosen the acronym because *digest* means *to break down food in the stomach.*
5 ___ *Generate alternative solutions* means *think of different answers to the problem.*
6 ___ You should evaluate each solution as you think of it.
7 ___ The last stage of the process is selecting the best solution.
8 ___ The writer thinks it is better not to make a decision than to make a bad one.

E Think about the example situation from this article (Paragraph 4). Go through the DIGEST process in pairs. Tell the other pairs your decision.

Decisions, Decisions, Decisions

'Digest' problems to make good decisions

Table 1: The DIGEST process

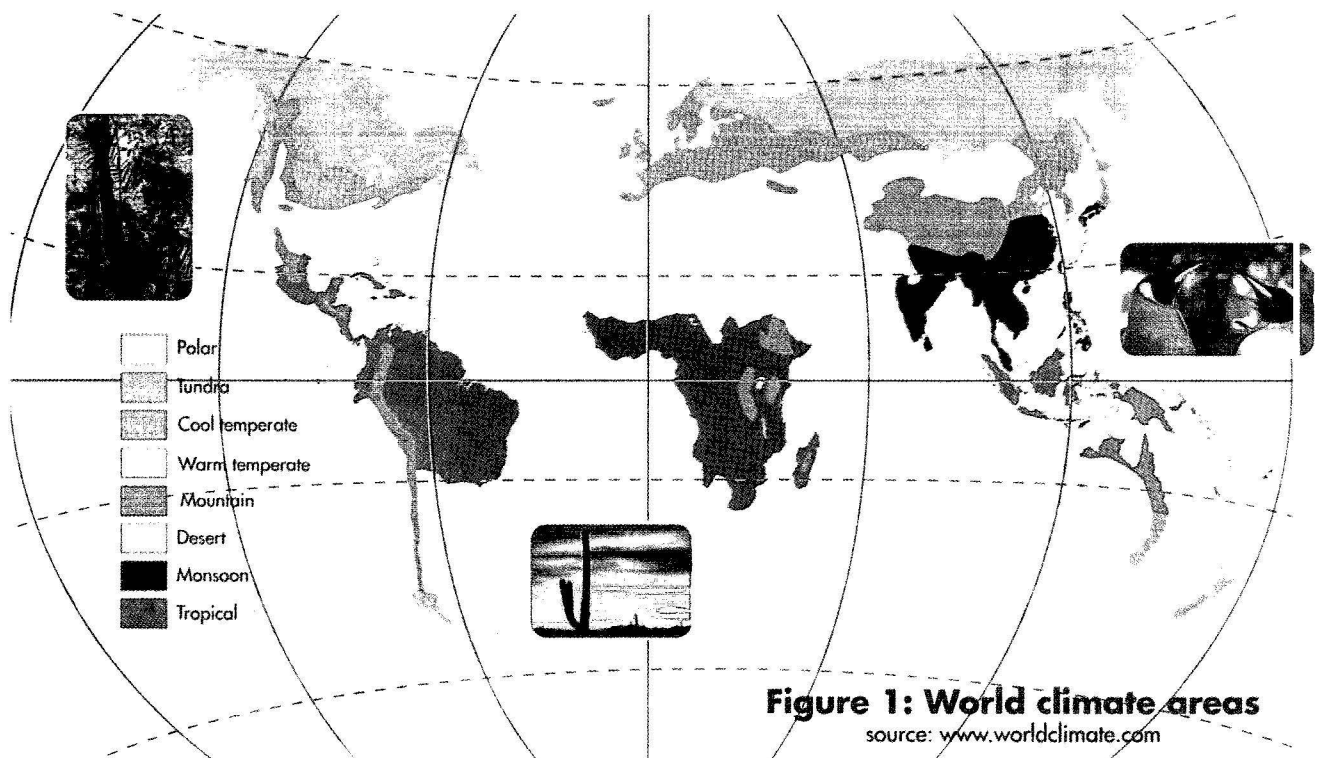|	
D	efine the problem
I	magine a successful solution
G	enerate alternative possibilities
E	valuate the possibilities
S	elect the best one
T	ell people your decision

A Firstly, **define** the problem.

B How do you make decisions?

C Let's look at an example of the process in action.

D We can summarise the process of good decision-making in the acronym DIGEST.

E You will not make perfect decisions every time, even with this decision-making process.

Polar
Tundra
Cool temperate
Warm temperate
Mountain
Desert
Monsoon
Tropical

Figure 1: World climate areas
source: www.worldclimate.com

In this theme you are going to read entries from an encyclopedia.

Lesson 1: Vocabulary

You are going to learn some of the vocabulary you will need to understand entries about science and nature in an encyclopedia.

Ⓐ Discuss these questions. They use the red words.
  1 What does a scientist do in a laboratory?
  2 What can you put in a table?
  3 What does the graph on this page show?

Climate in Aswan, Egypt

Temperature in °C (°F)	Rainfall in cm (in)
50 (122)	16 (6.0)
40 (104)	14 (5.5)
30 (86)	12 (4.7)
20 (68)	10 (3.75)
10 (50)	8 (3.0)
0 (32)	6 (2.36)
-10 (14)	4 (1.6)
-20 (-4)	2 (0.79)
-30 (-22)	0

J F M A M J J A S O N D

Ⓑ Can you work out answers to these questions? They include the green words. Look at the map, the pictures and the graph.
  1 What does *climate* mean?
  2 What is the source of the map?
  3 What is the climate in your country?
  4 In which climate area do you expect to see penguins? What about cacti?
  5 In which climate area are the rainforests of the world?
  6 *Living things* mean animals and what else?
  7 What animals do you expect to see in polar areas?
  8 What about desert areas?
  9 What plants do you expect to see in tropical areas?

Ⓒ Draw a climate graph of your area. Guess the information, or do some research.

Ⓓ Make a list of animals and plants that you find in your area.
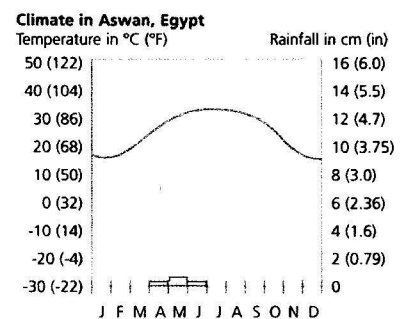
graph *(n)*
laboratory *(n)*
science *(n)*
scientific *(adj)*
table *(n)*
test *(v)*
climate *(n)*
desert *(n)*
living thing *(n)*
plant *(n)*
polar *(adj)*
tropical *(adj)*

Lesson 3: Learning new skills

(A) Cover the encyclopedia entries in Lesson 2. Complete these sentences with a word from the box in each space. Then read the entries again and check.

1 Ecology is the study of the relationship between _____ things and their environment.
2 The land, water and air where people, animals and _____ live.
3 A food chain is the way that _____ is transferred from one living thing to another.
4 We learn from ecology that living things _____ on each other to survive.
5 At the top of every food chain there is a

_____.

6 This consumer _____ another consumer.
7 At the bottom of every food chain there is a

_____.

8 If we _____ one part of a food chain, there will be a _____ in another part of the chain.

(B) Look at Figure 1.
1 Draw arrows to show the energy transfer.
2 Label the *consumers* and the *producers*.
3 If we remove the giraffe from this food chain, what will the result(s) be?

(C) You want to look up these entries from your research in Lesson 2.

> carnivore herbivore energy
> consumer producer

What order will the entries be in?
1 Read Skills Check 1.
2 Number the entries in alphabetical order.
3 Look up each entry on page 11 of the Reading Resources book.

(D) Check the encyclopedia entries and use your own understanding to decide if these sentences are true or false.
1 ___ A cow is a herbivore.
2 ___ A falcon is a carnivore.
3 ___ Man is a tertiary consumer.
4 ___ Energy passes from a producer to a primary consumer.

(E) Read Skills Check 2. What are your research questions for next week?

consumer   depend   energy   living   plants
producer   reaction   remove   eats

Figure 1: An example food chain
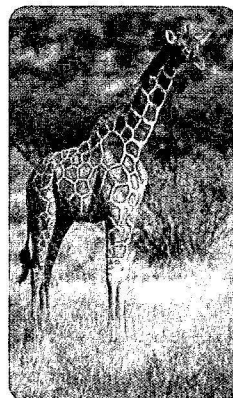
Skills Check 1

Alphabetical order

The entries in many reference books are in **alphabetical order**. You know the English alphabet already. But you must become an expert in the alphabet so that you can look things up quickly. Learn the rhyme from English schools:
A B C D   E F G
H I J K   L M N O P
Q R S T U V W X Y and Z
Remember: If two words have the same first letter, you look at the second letter, then the third, etc.

Skills Check 2

Doing research

Always do reading research for a purpose. Write some research questions before you read:
**Examples:**
What is ecology?
What is a food chain?
Then go and do research to find the answers to those questions. Follow any links, e.g.,
⇒ **carnivore**, to extra information that will help to answer the research questions. Don't read anything you don't have to read.

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Lesson 4: Applying new skills

Ⓐ Draw a food chain with animals and plants from your area.

Ⓑ Look back at the list of lectures in Environmental Management for this semester (Lesson 2). Imagine that it is now Week 1.
1 What must you research this week?
2 Write your research questions.

Ⓒ Find answers to your research questions. The entries begin on page 10 of the Reading Resources book. Follow any links to information that will help to answer the research questions.

Ⓓ True or false?
1 ___ A food web is a connection between two or more food pyramids.
2 ___ There are sometimes 30 living things in a food web.
3 ___ A food pyramid shows energy transfer from the bottom to the top of a food chain.
4 ___ There are more living things at the top of a food pyramid than at the bottom.
5 ___ An ecosystem is an area with a particular group of animals.
6 ___ Only a change in climate can destroy an ecosystem.
7 ___ Climate is a combination of temperature and rainfall.
8 ___ Surinam, in South America, lies between latitudes 3° north and 6° north, so it has a tropical climate.
9 ___ South Orkney Island, near the South Pole, has a polar climate, which means the maximum temperature is 5°C.
10 ___ Photosynthesis happens in all plants.

Ⓔ Look again at Figure 3 on page 10 of the Reading Resources book.
1 What eats what in this food web?
2 What are the producers in this food web?
3 What are the primary consumers?
4 What are the secondary consumers?
5 Find several food chains inside this food web.
6 What may happen to the living things in this food web if the giraffe eat all the trees?
7 What may happen to the living things in this food web if harmful chemicals got on to the grass, e.g., blown from farms by the wind?
8 Look at your food chains from Exercise A. Can you combine any into a food web?

Ⓕ Look again at Figure 2 on page 10 of the Reading Resources book. Then read this text and draw a food pyramid from the information. Write the number of living things at each level.
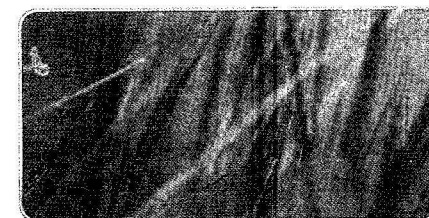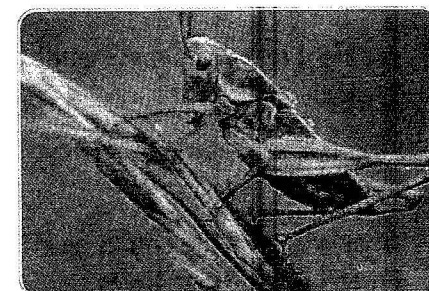
At the top of this particular food pyramid, there is an eagle. This eagle must eat two snakes a day to survive. Those two snakes must eat ten frogs. The frogs must eat 27 grasshoppers. The grasshoppers get energy from eating huge amounts of grass.
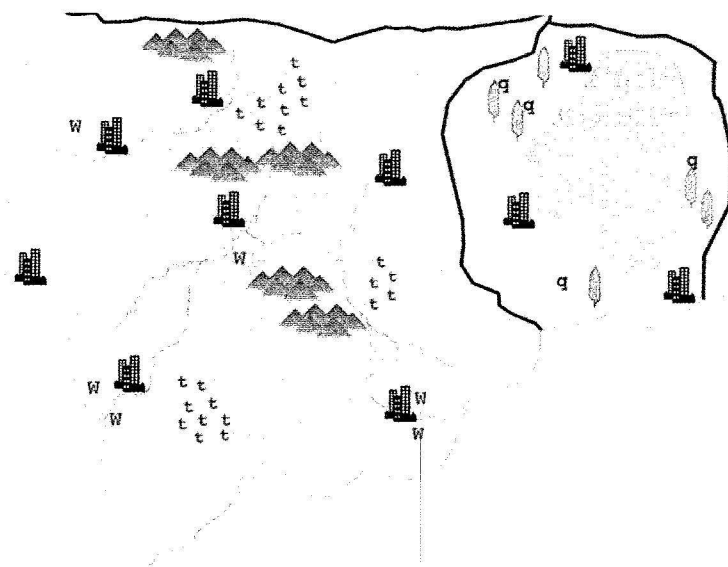
In this theme you are going to read two articles that compare countries.

Lesson 1: Vocabulary

You are going to learn some of the vocabulary you will need to understand the articles.

A Answer these questions, which use some of the red words.
  1 Which region is your country in?
  2 Is it north or south of the Equator?
  3 What is the exact location of the capital city?
  4 What are the main types of landscape in your country?

B How can you compare two countries? Choose a green word or phrase for each space. Make any necessary changes to the words.
  1 You can describe the location of each country and mention its
     _____ – the countries that _____ it.
  2 You can look at the _____ – the number of people who live in each country.
  3 You can consider the _____ – the size of each country, usually in square kilometres.
  4 You can think about the _____ – the normal or average weather in summer and winter.
  5 You can describe the _____ – the mountains, deserts, lakes and rivers in each country.
  6 You can look at the main _____ in each country – what do they make or grow?

C In what ways is your country the same or different from **one** of its neighbours? Choose the neighbour and then use green words, *both* and comparatives – *bigger, smaller.*
  Examples:
  My country is smaller than Saudi Arabia.
  It has a smaller area and a smaller population.

compass *(n)*

landscape *(n)*

latitude *(n)*

location *(n)*

longitude *(n)*

region *(n)*

the Equator *(n)*

the Middle East *(n)*

area *(n)*

border *(v)*

climate *(n)*

industry *(n)*

natural feature *(n)*

neighbour *(n)*

population *(n)*

Lesson 2: Reading

A What is your ideal holiday location? Make a list of things that the place must have, or that you must be able to do there.

Examples:

It must have a good beach.
You must be able to go skiing.

B Imagine you are trying to choose a place to go on holiday. What information will you find in a guidebook?

C You are going to recommend a holiday destination to your friend. You have to choose between the two countries on the right. Look at the maps.

1 Can you identify each country?
2 Which region is each country located in?
3 What do you think is good about each country for a person on holiday?

D You are going to read an article that compares the two countries. Look at the topic sentences. Check your answers to B1 and 2 above.

E Read the information about your friend in the blue box.

1 Write a question for each point.
Example:
What language do they speak in each country?
2 In which paragraph of the article might you find the answer to each question?

**F** Read the article on page 12 of the Reading Resources book.

1 Find answers to your questions in D1.
2 Choose one of the two countries for your friend's holiday.

G Which word or phrase in the article means:

1 a place to go?
2 the natural things to see?
3 very high?
4 planes, trains, boats?
5 you can live there?
6 occupied?
7 send things to another country?
8 bring things from another country?
9 the average weather?
10 climbing mountains?
11 the broken walls of old buildings?
12 it's your choice?

H Which country would you prefer to go to on holiday? Why?

Mediterranean Sea

ALGERIA LIBYA

GERMANY
FRANCE LIECHTENSTEIN AUSTRIA
Lake Geneva A L P S
ITALY
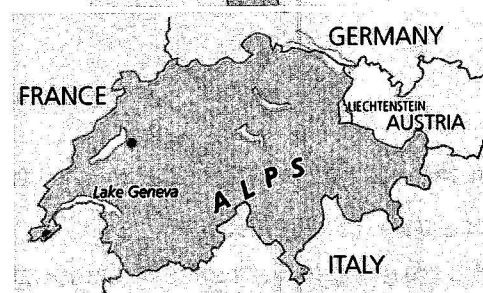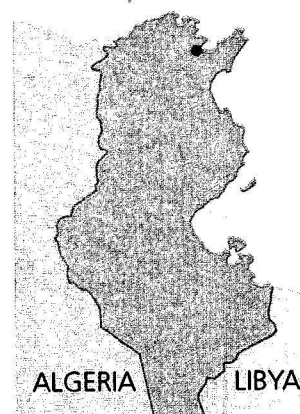
A What do you want from a holiday destination?

B Tunisia is located in North Africa.

C Switzerland is located in Western Europe ...

D Tunisia has a long Mediterranean coastline.

E Both Tunisia and Switzerland are small in terms of population.

F Both countries are agricultural.

G So why do people go to each country on holiday?

H You decide.

My friend:
• speaks French.
• likes water-skiing.
• likes mountain climbing.
• doesn't like very hot weather.
• loves fruit and chocolate.

١٨

In this theme you are going to write some advice to students on learning and revising for a test.

Lesson 1: Vocabulary

You are going to learn some vocabulary you need to give advice on learning information and revising for a test.

A Cover the red words. Complete the words below with a vowel letter *(a, e, i, o, u)* in each space. Then check your spelling with the red words.

1 ___ss___gnm___nt
2 d___pl___m___
3 dr___ft
4 f___c___lty
5 f___rm
6 ___nstr___ct___r
7 l___t___r___t___r___

B Which red word(s) has / have …
1 a doubled letter?
2 a silent letter?

C Do the crossword. Choose a green word for each answer.

Across

1 …-choice questions have three or four answers, e.g., *Choose a, b, c or d.* (8)
6 The 'k' in *know* is a … letter. (6)
7 You should … before a test by looking carefully at all your notes. (6)
8 Try to … a new word to a word you already know, e.g., *choice* is the noun from the verb *choose.* (4)
**9** An … question is a question with several possible answers. (4)

Down

2 You do a … test before the real test. (8)
3 Ask your teacher to tell you the … units for a test – in other words, the units you should study for the text. (8)
4 You must … your writing in a logical way. (8)
5 The letter 'o' is … in the word *book.* (7)

D Look at the words in the table.
1 Complete the table.
2 Write a sentence with each noun and a sentence with each verb.

assignment *(n)*
diploma *(n)*
draft *(n)*
faculty *(n)*
form *(n)*
instructor *(n)*
literature *(n)*
doubled *(adj)*
link *(v)*
multiple *(adj)*
open *(adj)*
organise *(v)*
practice *(n)*
relevant *(adj)*
revise *(v)*
silent *(adj)*
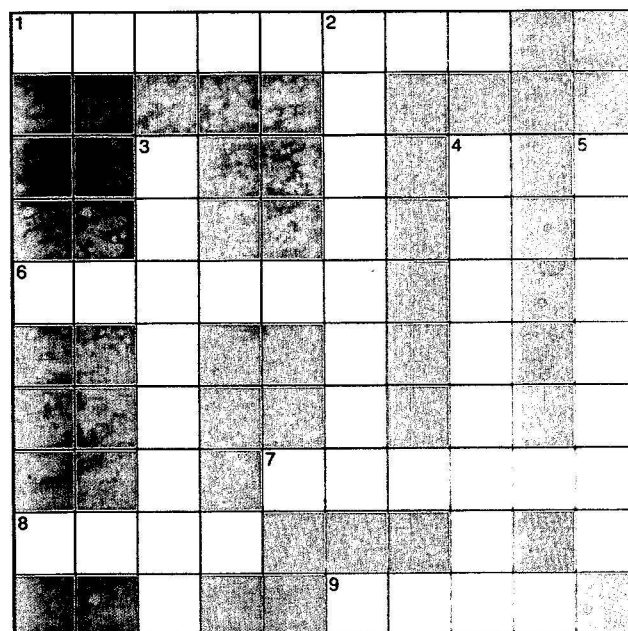
verb	noun
	revision
test	
practise	
	organisation
draft	

Lesson 4: Applying new skills

A Complete the table with the missing words.

	verb	noun
1		conclusion
2	decide	
3		findings
4	improve	
5	recommend	
6		introduction
7		discussion
8	report	

B Rewrite each word with the correct spelling.

1	undrestand	
2	provideing	
3	eqipment	
4	resorces	
5	branestormed	
6	selekted	
7	investigat	
8	opinon	
9	administraters	
10	computors	
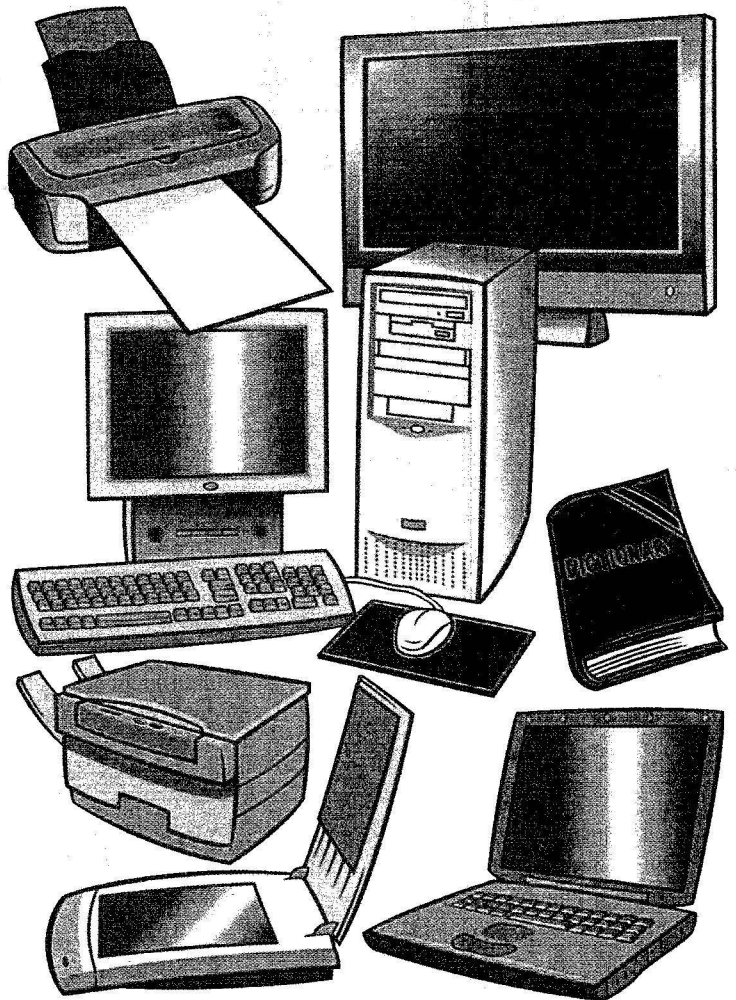
C Imagine that you have received the same sort of letter as the students at Greenhill College (Lesson 1). Work in groups, but make your own notes during all the discussions.
 1 Brainstorm different ways to spend the money. Make a list.
 2 Select the most popular items.
 3 Find out the cost of each item – use the Internet or, if you can't find the real costs, guess.
 4 Reject items that you think are too expensive.
 5 Vote on the rest of the items. Make sure you have good reasons for voting for an item. Make sentences with *If* ... .

D Work on your own.
 1 Make a table of the most popular items with the approximate cost (Table 1). Note any items rejected because of cost.
 2 Make another table of the votes for the selected items (Table 2).
 3 Write the first draft of your report in five sections.

E Work in your groups again. Read all the other reports from the people in your group. Make notes of any improvements you can make to your report.

F Write a second draft of your report and give it to the teacher.
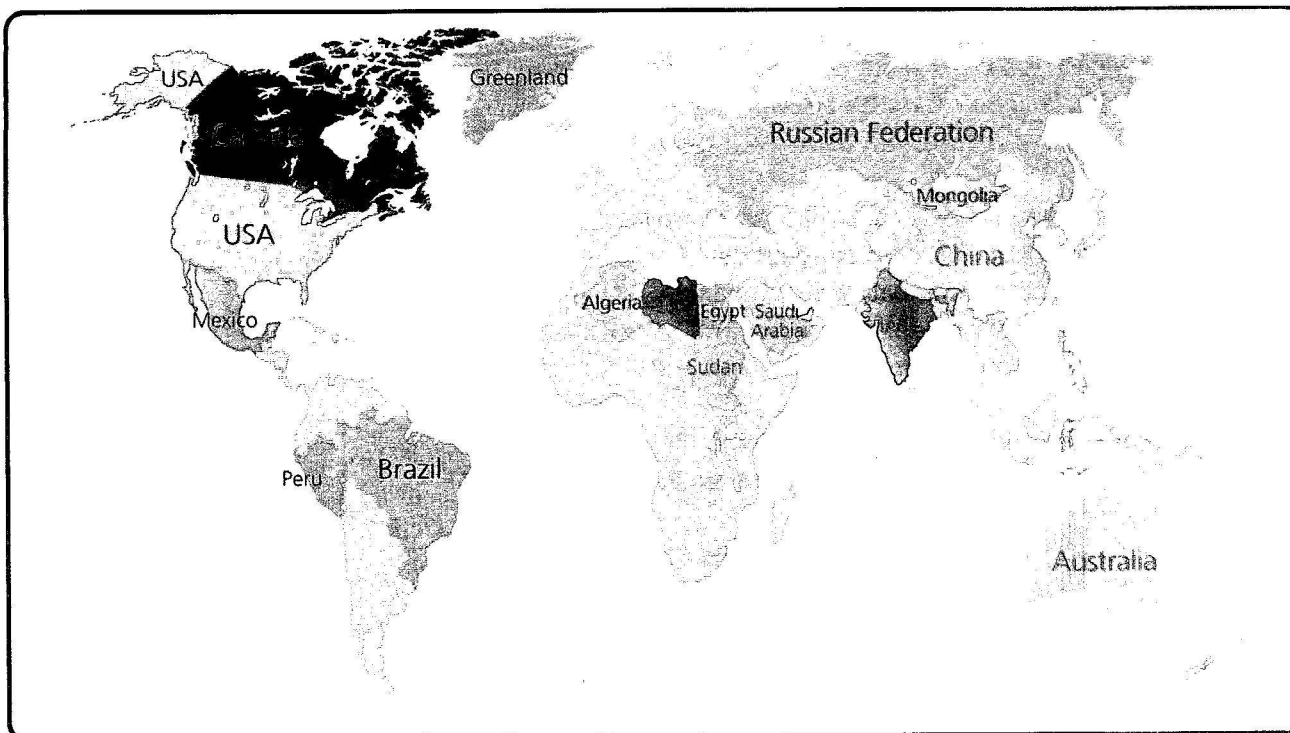
In this theme you are going to write a text comparing your country with another country in the same region.

Lesson 1: Vocabulary

You are going to learn some vocabulary you need to compare countries.

Ⓐ Where is your country? How could someone find it easily on a world map? Use some of the red words.

Ⓑ Describe one of the other countries on the map above. Can your partner work out which country you are describing?

Ⓒ Complete the crossword with a green word in each space. Find the hidden word.

1 normal weather	
2 edge of a country	
3 most important	
4 the number of people	
5 place	
6 size of a country	
7 Africa, Asia, etc	
8 oil production, steel-making	
9 farming	

Ⓓ How much do you know about your country? Talk about your country, using the green words.
Example:
My country has a border with Saudi Arabia.

Writing

You are going to read a text about two countries. It compares the countries, using facts from the table below.
Complete the text with the correct fact in each space.

Work in pairs. Cover the text and look at part of the table.
Student A: Look at the information about the UK.
Student B: Look at the information about the USA.
1 Write five sentences from the information. Make mistakes of fact in two of your sentences.
   Examples:
   The UK is located in Western Europe. **(True)**
   The area of the UK is just over 345,000 square kilometres.
   (False – it's just under 245,000.)
2 Show your sentences to your partner. Can he / she identify the false sentences and correct them?

Look at the text again. Find and underline the words in the yellow box.

Cover the text. Write five sentences comparing the two countries.
Use words from the box.
Example: *The USA is bigger than the UK in area.*

bigger   hotter   colder
both   whereas   while

The two main countries in the English-speaking world are the United Kingdom and the United States of America. The UK is located in _____, whereas the USA is part of the _____ continent. The UK has one short land border, with _____, while the USA has two very long land borders – one in the _____ with Canada and one in the _____ with Mexico.

In both the UK and the USA, of course, English is the main language. However, in the USA a large number of people speak _____.

The USA is much larger than the UK, at just under _____ million square kilometres, whereas the UK is just over _____ thousand square kilometres. The USA is also much bigger in population. There are just over _____ million people in the USA, compared with just under _____ million in the UK.

The capital of the USA, Washington, DC, is hotter in summer than London. The temperature is _____°C compared with 22°C. However, it is colder in winter: -3°C compared with _____°C.

Both countries have a lot of agricultural land – _____% in the UK against _____% in the USA, but in neither country is agriculture the main industry. In the UK, the main industries are services – retailing and _____, whereas in the USA the main industries are oil and _____.

Country	UK	USA
Region	Western Europe	North America
Borders	The Republic of Ireland	Canada (north), Mexico (south)
Area	244,800 km²	9.6 m km²
Population (million)	59.8	281
Language(s)	English	English (Spanish = large number)
Climate	London summer: 22°C; winter: 2°C	Washington, DC, summer: 31°C; winter: -3°C
Agricultural land	71%	45%
Industry	services = retailing, banking	oil, steel