Reading 2

11·2



1 In small groups, try and answer these questions.

- Why do the east coast of South America and the west coast of Africa seem to fit each other?
- As coal is formed from plants that need a warm climate, why is there coal in an island near the Arctic?
- Can volcanoes and earthquakes occur anywhere in the world?

Reading

2 Now skim this article and check your answers to the questions above.

⏱ about 600 words

Moving continents

A The belief that continents have not always been fixed in their present positions was first suggested as early as 1596 by the Dutch map maker Abraham Ortelius. Ortelius suggested that the Americas were 'torn away from Europe and Africa ... by earthquakes and floods', and went on to say, 'The vestiges of the rupture reveal themselves if someone brings forward a map of the world and considers carefully the coasts of the three [continents].' However, it was not until 1912 that the idea of moving continents was seriously considered as a full-blown scientific theory, when the theory of continental drift was introduced in two articles by a 32-year-old German meteorologist named Alfred Lothar Wegener. He contended that all the present continents used to form one 'supercontinent', which he called 'Pangaea' (the Greek for 'all lands' – the second syllable is usually pronounced 'jee' or 'gay'), and that this began to split apart around 200 million years ago. The parts drifted across the Earth, eventually breaking into the various smaller continents that exist today.

B Wegener's theory was based in part on what appeared to him to be the remarkable fit of the South American and African continents, first noted by Ortelius three centuries earlier. Wegener was also intrigued by the occurrences of unusual geologic structures and of fossils – of both plants and animals – found on the matching coastlines of South America and Africa, which are now widely separated by the Atlantic Ocean. He reasoned that it was physically impossible for most of these creatures to have swum or have been transported across the vast ocean. To him, the presence of identical fossils along the coastal parts of Africa and South America was the most compelling evidence that the two continents were once joined.

C In Wegener's mind, the drifting of continents after the break-up of Pangaea explained not only the matching fossil occurrences but also the evidence of dramatic climate change on some continents. For example, indications that there were once glaciers in regions of South Africa led to the conclusion that this land must once have been situated much further away from the tropics. Other mismatches of geology and present-day climate included the occurrence of coal – the product of ancient temperate or tropical forests – in Spitzbergen, an island that is now close to the North Pole.

D At the time Wegener introduced his theory, the scientific community firmly believed the continents and oceans to be permanent features on the Earth's surface. Not surprisingly, his proposal was not well received, even though it seemed to agree with the scientific information available at the time. A fatal weakness in Wegener's theory was that it could not satisfactorily answer the most fundamental question raised by his critics: what kind of forces could be strong enough to move such large masses of solid rock over such great distances?

E After Wegener's death in 1930, new evidence from ocean floor exploration and other studies rekindled interest in his theory, ultimately leading, in the early 1960s, to the development of the theory of plate tectonics. This scientific concept has revolutionised our understanding of the dynamic planet upon which we live. The theory states that the Earth's outermost layer is fragmented into a dozen or more plates of various sizes that are moving relative to one another as they ride on top of hotter, more mobile material.

F The theory has provided explanations to questions that scientists had speculated upon for centuries – such as why earthquakes and volcanic eruptions occur in very specific areas around the world, and how and why mountain ranges like the Alps and Himalayas formed.

LIVEWORKSHEETS

3 This is how Pangaea may have looked around 225 million years ago. Can you identify the present-day continents and sub-continents?



4 ***Questions 1–6***

Answer the questions below using ***NO MORE THAN THREE WORDS*** *from the passage for each answer.*

Test spot

The task in questions 1–6 is similar to sentence and note completion. The questions normally follow the order of information in the passage. ···⁘ TF 4

1 In Ortelius's opinion, what caused continents to be separated?
2 In the theory of continental drift, what was given the name 'Pangaea'?
3 Apart from shape and geological structures, what similar phenomena are found in South America and Africa?
4 What do indications of glaciers in South Africa and coal in Spitzbergen provide evidence of?
5 According to the 1960s theory, what does the top layer of the Earth consist of?
6 What natural phenomena may have been created by movement on the Earth's surface?

Remember that in the following task the questions don't follow the order of information in the passage.

Questions 7–12

The reading passage has six paragraphs labelled ***A–F****.*

Which paragraph contains the following information?
NB *You may use any letter more than once.*

7 how later developments revived consideration of the theory of continental drift
8 evidence that some areas used to be situated in much warmer or cooler regions
9 something that Wegener's theory could not explain
10 a reason why living organisms can't have moved from one continent to another
11 an apparent contradiction in the reaction to the theory of continental drift
12 an outline of a theory that explains how continental drift occurs

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Vocabulary

Education



2.1 5a **Replace the words in *italics* below with ONE word. Then listen to the recording and check your answers.** Audio

Teacher Can you tell me about your early education?

Student Well, I went to [1] ~~*a school for very young children*~~ from the age of four and I remember that I didn't enjoy it very much at all. My [2] *from the age of 5 to 11* school was a little better, especially because my mum was a teacher in the school. She taught in the [3] *younger part of the* school and she was actually my teacher in first [4] *level*, but when I went up to the [5] *older part of the* school I didn't see very much of her. After that I was lucky enough to receive a [6] *chance to go to school without paying fees* for a very good [7] *from age 11 to 18* school. My parents couldn't have afforded to send me to a [8] *not free* school so it was a really great opportunity for me. It was a [9] *only for one sex* school, so there were no boys. I'm glad I didn't go to a [10] *for boys and girls* school because I think there are fewer distractions so everyone can just concentrate on their studies.

1 kindergarten
2 .....
3 .....
4 .....
5 .....
6 .....
7 .....
8 .....
9 .....
10 .....

Vocabulary note

Words ending in *-ist* are usually used to describe a person who studies a particular subject or who holds a particular set of beliefs: *economist, scientist, feminist, Marxist.*

2.2 **WORD BUILDING Complete the table.**

Subject	Person	Adjective
architecture		
		archaeological
biology		
economics		
geology		
	geographer	
	journalist	
languages		
	lawyer	
		mathematical
science		

2.3 **Complete the sentences with suitable words from the table.**

1 I've always wanted to go on an archaeological dig to try to find fossils and ancient artefacts.
2 Have you seen a copy of the a..... plan for the new building?
3 My daughter is a l.....; she speaks six different languages.
4 The government has a good e..... policy. I'm sure the recession will be over soon.
5 I'm studying j....., I've always wanted to be a political writer.
6 I'm not very familiar with the g..... of that part of the world.

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Research

3.1 5b **You will hear part of a talk for students. Listen and complete the notes below. Write NO MORE THAN TWO WORDS for each answer.**

Continuing your studies *after graduation*
Writing your *dissertation*

Important considerations:

- Many students struggle to find a research (1)..... .
- Writing a (2)..... *is easier* if you make the right choice.

You need to:

- Study the (3)..... .
- Have a *wide* (4)..... of your *field of study*.
- *Establish* what is (5)..... in your field.
- Have a clear idea of the (6)..... of your study.
- *Consider* whether there are any (7)..... in existing research.
- *Think about* your (8)..... carefully.
- Ask about (9)..... from outside sources.
  Ask your (10)..... to check your *results*.

Audio

3.2 5b **Listen to the talk again and write synonyms for the words in italics in 3.1.**

after graduation = postgraduate,
.....
.....
.....
.....
.....
.....
.....

4 **PRONUNCIATION** 5c **Mark the stress on these words. Then listen and check to see if you were correct. Practise saying the words.** Audio

academic	assignment	consideration
concentrate	controversy	conduct (v)
distraction	dissertation	economist
educational	educated	research (n)
thesis	theory	theoretical

Test practice

General Training Reading Section 2

Work experience and internship programs

Through our student work experience program, the education authority provides over 9,000 work experience placements for young people each year. Our program is designed to offer employment opportunities for students that will enrich their academic studies and help them gain valuable work-related skills thereby improving their chances of finding a good job after graduation. A placement does not need to be related to a particular field of study and so participants may even discover areas of work they have never considered before.

All secondary and post-secondary school students in full-time education are eligible to apply for the program. Individual case managers will determine the minimum level of academic achievement required for each job. During an academic term, a student may work part-time. During the summer holidays a student may work full-time or part-time. The education authority is responsible for the recruitment of all students under the work experience program. Applicants apply in person to our office and we refer candidates to the appropriate department.

Our internship program is designed specifically for post-secondary students, whether part-time or full-time. Students on the internship program are given an assignment related to their research area offering them the chance to use their academic knowledge in an actual work setting. The academic institution plays an important role in the placement of students under this program and they will determine the duration of a work assignment. These traditionally last four months but internship assignments may vary from 4 to 18 months. Students in this program normally work full-time.

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Questions 1–3

Complete the sentence with the correct ending **A–E**.
Write the correct letter, A–E, next to questions 1 – 3.

1 You can apply for the work experience program .....

2 You can work on the student work experience program full-time .....

3 You can only join the internship program .....

A if you have high academic results from your educational institution.
B if you are a full-time student.
C outside of normal term time.
D when you have graduated from university.
E if you have finished your secondary education.

Questions 4–8

Complete the summary below.
Choose **NO MORE THAN TWO WORDS AND / OR A NUMBER** from the text for each answer.

To take part in the work experience program, first you need to apply to the **(4)**..... . Your **(5)**..... will tell you what qualifications you need. The internship program allows undergraduates to gain work experience in their **(6)**..... .
The maximum length of an internship assignment is **(7)**..... .
This is decided by the **(8)**..... .

Test Tip

The information in the summary may not be in the same order as in the reading text.

LIVEWORKSHEETS