

7 Wonders of the modern world

READING SKILLS How to make reading easier (1), (2), and (3)

VOCABULARY DEVELOPMENT Suffixes

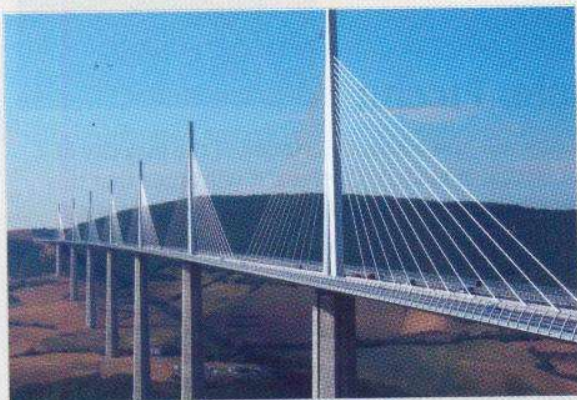
RESEARCH Avoiding plagiarism (2)

LANGUAGE FOR WRITING Verbs for reporting another writer's ideas

WRITING Summarizing • Writing a summary

READING Feats of engineering

- 1 Discuss the questions with a partner.
 - 1 What remarkable man-made structures are there in your country?
 - 2 What about in other countries?
- 2 Skim the web page. What three kinds of structure is the text about?
- 3 Scan the web page and answer the questions.
 - 1 Where were the tallest buildings in the world in 1999?
 - 2 How tall are they?
 - 3 When was the Millau Bridge opened?
 - 4 How long is the guarantee for the Millau Bridge?
 - 5 What is the name of the river that the Itaipu Dam crosses?
 - 6 How much material was removed to build the dam?



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Giant structures

*It is an impossible task to select the most amazing wonders of the modern world, since every year more wonderful constructions appear. As soon as the tallest building in the world is completed, another even taller one breaks the record. Even though these constructions are spectacular, the **innovative** technology which they incorporate will undoubtedly be improved on in the future.*

The Petronas Towers

The Petronas Towers were the tallest buildings in the world when they were **inaugurated** in 1999. With a height of 452 metres, the **slender** twin towers, like two thin pencils, dominate the city of Kuala Lumpur. At the 41st floor, the towers are linked by a bridge, symbolizing a gateway to the city. The American architect Cesar Pelli designed the skyscrapers with eight-point star shapes with an Islamic influence to reflect the Muslim culture of Malaysia.

Constructed of high-strength concrete, the building provides around 1,800 square metres of office space on every floor, and includes a shopping centre and a concert hall at the base. Other features of this impressive monument include double-decker lifts, and glass and steel sunshades.

The Millau Bridge

The Millau Bridge was opened in 2004 in the Tarn Valley, in southern France. At the time it was built it was the world's highest bridge, reaching over 340m at the highest point. Described as one of the most **breathtakingly** beautiful bridges in the world, it was built to relieve Millau's congestion problems caused by traffic passing from Paris en route to Barcelona, in Spain.

The bridge is supported by seven concrete and steel pillars which rise into seven graceful pylons. Designed by the British architect Norman Foster and constructed by a French company, it was built to **withstand** the most extreme seismic and meteorological conditions and is guaranteed for 120 years!

The Itaipu Dam

The Itaipu hydroelectric power plant is the largest construction of its kind in the world. It consists of a series of dams across the River Parana, which forms a natural border between Brazil and Paraguay. Started in 1975 and taking 16 years to complete, the construction was carried out as a **joint** project between the two countries.

The dam is remarkable for both its electricity output and its size. In 1995 it produced 78% of Paraguay's and 25% of Brazil's energy needs, breaking previous records for energy production. In its construction, the amount of iron and steel used was equivalent to over 300 Eiffel Towers, and the volume of concrete needed was equal to 210 football stadiums! Furthermore, the **course** of the seventh biggest river in the world was changed and 50 million tons of earth and rock were removed. It is a truly remarkable feat of engineering.

(446 words)

4 Read the web page intensively and answer the questions.

- 1 What facilities do the Petronas Towers have?
- 2 What did the architect of the towers want the buildings to reflect?
- 3 Why was the Millau Bridge built?
- 4 What is the bridge like?
- 5 What do you learn about the power produced by the Itaipu Dam?
- 6 What was special about the construction of the dam?

5 **Read Study Skill** Complete the table. Guess the meaning of the words in bold in the text. Use the part of speech to help you.

word	part of speech	your guess
innovative	adjective	introducing new ideas

6 **Read Study Skill** Underline the main clause in the sentences.

STUDY SKILL How to make reading easier (2)

Complex sentences have more than one clause. To help you understand them, identify the main clause:

- *Started in 1975 and taking 16 years to complete, **the construction was carried out as a joint project between the two countries.***

Identify the other clauses by looking for relative pronouns, linking words, and phrases beginning with a present or past participle.

- ***Started in 1975 and taking 16 years to complete,** the construction was carried out as a joint project between the two countries.*

- 1 It is an impossible task to select the most amazing wonders of the modern world, since every year more wonderful constructions appear.
- 2 The Petronas Towers were the tallest buildings in the world when they were inaugurated in 1999.
- 3 Constructed of high-strength concrete, the building provides around 1,800 square metres of office space on every floor and includes a shopping centre and a concert hall at the base.
- 4 Described as one of the most breathtakingly beautiful bridges in the world, it was built to relieve Millau's congestion problems caused by traffic passing from Paris en route to Barcelona, in Spain.
- 5 The bridge is supported by seven concrete and steel pillars which rise into seven graceful pylons.
- 6 In 1995 it produced 78% of Paraguay's and 25% of Brazil's energy needs, breaking previous records for energy production.

7 Circle the relative pronoun, linking word, or participle, and underline the clauses which they introduce.

- 1 It is an impossible task to select the most amazing wonders of the modern world, since every year more wonderful constructions appear.
- 2 The bridge is supported by seven concrete and steel pillars which rise into seven graceful pylons.
- 3 Designed by the British architect Norman Foster and constructed by a French company, it was built to withstand the most extreme seismic and meteorological conditions and is guaranteed for 120 years!

STUDY SKILL

How to make reading easier (1)

As you read a text, decide which words:

- you need to know to understand the text
- you can guess the meaning of

To help you guess the meaning of an unknown word:

- Identify the part of speech.
- Use what you already know about the subject.
- Look at the words and sentences around the unknown word.
- Think of a similar word and try it in the sentence. Does it make sense?



Islands in the sun



- 8 Discuss the questions with a partner.
- 1 What structures can be built in the sea?
 - 2 Why do people want to build in the sea?
- 9 Skim the web page *The most wonderful islands*, look at the pictures, and answer the questions.
- 1 What do the pictures show?
 - 2 What is the text about?
 - 3 Where are the Palm Islands?
- 10 Scan the text and decide if the statements are true (T), false (F), or not-stated in the text (NS).
- 1 Dutch engineers are sometimes experienced in reclaiming land from the sea.
 - 2 The islands are being built in the deep water of the sea.
 - 3 Rocks to build the breakwater were taken from the desert.
 - 4 All the luxury homes have been sold on Palm Jumeirah.
 - 5 Some famous people have already bought the luxury homes.
 - 6 Palm Deira will be the same size as Paris.
- 11 **Read Study Skill** What do the pronouns refer to? Look at the text again. Complete the table.

STUDY SKILL How to make reading easier (3)

Pronouns, e.g. *it*, *this* are used to avoid repetition in a text. Identifying these referents helps you understand a text.

- Backward referencing refers to something which has been mentioned previously, perhaps in another sentence. For example:
*The sea was very deep with strong tidal movements. **This** made it difficult to build the bridge.*
- Forward referencing refers to something which comes later in the sentence. For example:
***It** is surprising that the current and tidal movements are so strong in such shallow water.*

pronoun	refers to
They (line 3)	_____
This (line 16)	_____
It (line 22)	_____
it (line 30)	_____
These (line 33)	_____

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The most wonderful islands

The Palm Islands are the largest artificial islands in the world and are under construction in Dubai, in the United Arab Emirates (UAE). They are being developed as tourist, leisure, and residential resorts, and will increase the coastline of the country by 120 kilometres.

After four years of planning and careful consideration of the environmental issues, construction started in 2001. Dutch engineers with experience of reclaiming land from the sea were employed in the building of the first two islands. The site for all three islands is an area of the sea where the water is not very deep. Sand is taken from the seabed and sprayed into the construction site. Although the shallow water facilitates this process, the islands are still very exposed to the currents and tidal movements of the sea. Rocks are used to hold the sand in place resulting in a large crescent structure. This acts as a breakwater and protects the islands from the sea.

The first two islands are in the shape of date palm trees and consist of a trunk and 17 fronds, or leaves, coming off the trunk. The first island, named Palm Jumeirah, has three five-star hotels in the trunk, and luxury homes in the leaves. It is astonishing that when these homes went on sale in 2004, they were all sold within three days.

The second palm, Jebel Ali, was started in 2002 and is designed to be an entertainment centre. Six marinas are planned, with a water theme park, and homes built on stilts in the water.

The Palm Deira is planned to be the largest of the three islands, with a length of 14 km and a width of 8.5 km, an area larger than the city of Paris. Engineers estimate that it will require a billion cubic metres of rock and sand. It will consist of residential properties, marinas, shopping malls, sports facilities, and clubs. These will be open to both residents and tourists.

More artificial islands, the World Islands, are now being constructed near the Palm Jumeirah. They consist of 300 private islands grouped into the shape of the continents of the world and will be used for estates, private homes, community islands, and resorts.

Unquestionably, these artificial islands are one of the wonders of the modern world. They will also maintain Dubai's status as one of the leading tourist destinations in the region.

(396 words)