

# **Nature**

UNIT AIMS

#### **READING SKILLS**

Labelling a map Completing short answer questions Labelling a diagram (2) Classifying information

#### **EXAM PRACTICE**

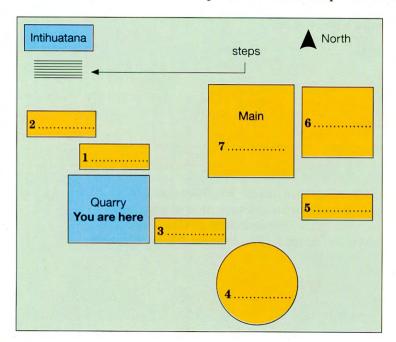
Completing a table Completing short answer questions Completing multiple-choice questions

### Labelling a map

1 Complete each paragraph with the name of the correct civilization and answer the questions below.

Inca Norse

- 1 ......mythology provides a typical example of how natural processes are dramatized in early cultures. People believed that Thor, son of the god Odin, rode across the sky in a chariot. When he swung his hammer, it made thunder and lightning, and of course also rain which was necessary for growing crops.
- a People today often prefer to find scientific rather than divine explanations for natural processes. What have we gained or lost by this?
- **b** What lessons could modern society learn from our ancestors in order to improve our relationship with the environment?



- 2 Study the map of Machu Picchu. Answer the questions about the map.
  - **a** Where is the main reference point for the map?
  - b What lies north of the Quarry?
  - c What types of words are missing in each blank space?
  - **d** What type of place do you think 7 is?
  - e How would you describe the location of each place 1–6 in relation to 7?

3 Skim the extract below from an article on the nature reserve around Machu Picchu and label the map in exercise 2.

## Nature, gods and man in harmony

Discovered in 1914 by Hiram Bingham with partial backing from The US Geographic Society, Machu Picchu is situated in a natural reserve famed as much for its spectacular flora and fauna as the majesty of its buildings in perfect harmony with its natural surroundings.

The complex stands more than two thousand metres above sea level, 120 kilometres from Cuzco, in Peru. On the terraces above and to the west of the Main Lawn stand three temples. On the left, just north of the Quarry, stands the Temple of the Three Windows. This three-walled structure commands a spectacular view down across the Main Lawn to the mountain peaks in the east. Just north-west of this building is situated the Principal Temple with *Intihuatana* (the Sun's hitching stone) at the top of a flight of steps beyond the Temple. The purpose of this stone was principally astronomical. East of the Lawn and on the same level are the ruins of the Common District where the workers who looked after the complex for the Emperor lived. Other notable locations at Machu Picchu are the Royal Sector, which is situated on the same level as the Main Lawn to the south and just east of the Quarry. Just south of this sector stands the Temple of the Sun, Machu Picchu's only circular building. Inside there is an altar and a trapezoidal window known as the Serpent Window. At the south-east corner of the Main Lawn, just south of the Common District, is the Temple of the Condor, with a prison complex directly behind it.

- 4 Which of the following techniques do you think are useful to help you label the map?
  - a Reading the whole passage first and underlining all the names and directions and then looking at the map.
  - b Numbering the names in the text according to the map.
  - c Underlining the directions: north, etc.
  - d Putting boxes around the names.

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e Trying to complete several items in the map at the same time.



## Completing short answer questions

1 Answer the short answer questions about the reading passage on page 63. Use no more than THREE WORDS from the passage for each answer.

1	What kind of purpose did Intihuatana serve?
2	Which area is found on the east side of the Main Lawn?
3	What shape is the Temple of the Sun?
4	How many walls does the Temple of the Three Windows have?
5	What lies behind the Temple of the Condor?
6	What is the name of the window in the Temple of the Sun?

### **Technique**

Use the same technique for completing sentences to complete short answer questions. Think of the words or synonyms you have to scan for. Think of the grammatical form of the words that is required in the answer. Underline or circle the word limit in the rubric.

2 Complete questions 1–5 about the reading passage on page 63 using no more than TWO WORDS. Then find the correct answers in the passage.

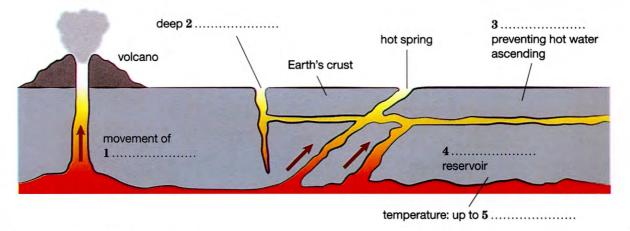
1	shape is the window in the Temple of the Sun
2	did the complex of Machu Picchu belong to?
3	is the scene across the lawn described?
4	helped fund Hiram Bingham?
5	is Machu Picchu from Cuzco?

## Labelling a diagram (2)

1 Study the diagram and predict the answers. Use the information in the diagram and your general knowledge.

### **Technique**

Use the same techniques for labelling maps to label diagrams.



2 Scan paragraph one in the reading passage on page 65 and using no more than TWO words or a number from the passage, label the diagram.

### Geothermal energy

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Since heat naturally moves from hotter regions to cooler ones, the heat from the Earth's centre (over 7000° Fahrenheit) flows outwards towards the surface. In this way, it transfers to the next layer of rock or mantle. If the temperature is high enough, some of this mantle rock melts and forms magma. The magma ascends in its turn towards the Earth's crust. At times it forces itself up to the actual surface where it builds volcanoes. More often it remains well below the Earth's crust, creating vast subterranean areas of hot rock. In such regions, there are deep cracks, which allow rainwater to percolate underground. This water is heated by the hot rock to a high temperature. Some of this water travels back up to the Earth's surface where it will appear as a hot spring or a geyser. However, if this ascending hot water reaches a layer of impermeable rock, it remains trapped, forming a geothermal reservoir. Much hotter than surface hot springs, such reservoirs can reach temperatures of 700° Fahrenheit and are a rich source of energy. If geothermal reservoirs are close enough to the surface, they can be reached by drilling wells. Hot water and steam shoot up the wells naturally, and can be used to produce electricity in geothermal power plants. Unlike fossil fuels, geothermal energy produces relatively little greenhouse gas.

A few geothermal power plants depend on dry-steam reservoirs which produce steam but little or no water. In these cases, the steam is piped up directly to provide the power to spin a turbine generator. The first geothermal power plant, constructed at Lardarello in Italy, was of this type, and is still producing electricity today.

Most currently operating geothermal power plants are either 'flash' steam plants or binary plants. Flash plants produce mainly hot water ranging in temperature from 300° to 700° Fahrenheit. This water is passed through one or two separators where, released from the pressure of the underground reservoir, it 'flashes' or explosively boils into steam. Again, the force of this steam provides the energy to spin the turbine and produce electricity. The geothermal water and steam are then re-injected directly back down into the Earth to maintain the volume and pressure of the reservoir. Gradually they will be reheated and can then be used again.

A reservoir with temperatures below 300° Fahrenheit is not hot enough to flash steam but it can still be used to generate electricity in a binary plant. In these plants, the heat of the geothermal water is transferred to a second or binary fluid, such as isopentane, which boils at a lower temperature than water. The steam from this is used to power the turbines. As in the flash steam plant, the geothermal water is recycled back into the reservoir.

## **Classifying information**

- 1 Using the reading passage above, classify the features in sentences 1–5 according to which type of geothermal plant they characterize.
  - A dry steam plants
- 1 There are examples which are in use today.
- B flash steam plants
- 2 They use geothermal reservoirs with temperatures over 300° F.
- C binary plants
- 3 They use steam from the Earth and not water.
- D all of them
- **4** The vapour which spins the turbines is not produced from water.
- 5 They are relatively easy on the environment.
- 2 Answer the following questions about the techniques you used in exercise 1.
  - a Is it better to scan the passage for the plants or for the features?
  - **b** Is it better to put a box around the plant names and label them A, B, etc. or to underline the words?
  - c Is it better to try to answer 1-5 simultaneously or one at a time?

### **Technique**

Locate the different categories or classes in the reading passage and put a box around them. Read the sentences to be classified. Scan the text around the boxed categories to locate the information in the sentences. Note in the IELTS exam the information to be classified may also be in phrases, i.e. noun phrases or clauses.

## Improve your IELTS word skills

1 Which words in the box mean the same as feature?

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article - characteristic - trait - attribute - character - quality
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- 2 What synonyms do you know for group?
- 3 Match each phrase a-h with a suitable noun 1-8.
  - a a make of
    b a species of
    c a genre of
    d a class of
    e a field of
    f a branch of
    g a breed of
    1 car
    d writing
    3 horse
    4 medicine
    5 study
    6 virus
    7 mammal
- 4 Which of these words can be used as synonyms of the nouns in exercise 3?

animal

h a strain of

5 Complete the following table with the correct form of the word.

Noun	Verb	Adjective
character	characterize	
distinction	distinguish	
example		
feature		
illustration	illustrate	illustrative
indication	indicate	
type	-	

6 Complete the sentences below using one of the verbs in the box.

C	classified - differentiated - satisfied - defined - catalogued - related
a	The library books are meticulously and given a barcode reference
b	Chimpanzees, gorillas and orang-utans are all closelyspecies.
c	Several specific criteria must be before any member is included in the group.
d	A marsupial can be as any mammal which gives birth to underdeveloped young and rears them in a pouch.
e	Fungi may be into three broad groups: yeasts, moulds and others.
f	Sometimes members of a subspecies of mammal can only be

### **Technique**

Build a bank of words and phrases that relate to classification. It is a common text feature in IELTS reading passages and questions.

### **Reading Passage 8**

1 You should spend 20 minutes on questions 1–13, which are based on Reading Passage 8.

### **Technique**

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- 1 Survey the whole reading passage and the questions.
- 2 Skim the title and predict the contents of the passage.
- 3 Skim the reading passage in no more than two minutes.
- 4 Skim the questions. Use the questions to help you improve your understanding of the general content of the reading passage.
- 5 Use the questions to help you think of the text features in the reading passage, e.g. classification.

## The beauty of cats

For most people, a domestic cat is a more or less beautiful, usually affectionate but rarely useful member of the family. However, for the people who breed, show or simply admire them, the pedigree aristocrats of the cat world can easily become an obsession. As yet, there is a very much smaller range in the sizes and shapes of cats compared with dogs, which is not surprising when we consider that dogs have been selectively bred for hundreds, if not thousands, of years to develop physical and temperamental characteristics that can be put to work for man as well as admired. By contrast, all breeding of pedigree cats is for purely aesthetic reasons.



Only a few pedigree cat breeds date back beyond the late nineteenth century, and most have been developed since the 1950s. To achieve acceptance, any new breed must be officially recognized by the national and international organizations of 'cat fanciers' that regulate the breeding and showing of pedigree cats. To date, official recognition has been given worldwide to more than 100 different breeds. A fairly small number of these are what might be called 'natural' breeds, with distinctive characteristics that appeared spontaneously, and then became established in the cat population of a particular country or region. Examples include what is popularly known as the Persian, with its long-haired coat; the Russian Blue, with its plush grey 'double' coat; the Siamese, with its slender body, long, narrow face and distinctive colouring; and the Manx cat, with either no tail (a 'rumpy') or a small stump of a tail (a 'stumpy').

More usually, new pedigree cat breeds are the result of meticulously planned breeding programmes designed to establish or enhance attractive or unusual features occurring in non-pedigree cats. Without the intervention of the cat breeder, many of these features would occur only rarely or would have simply disappeared through natural selection. Even the so-called natural breeds have been considerably modified over the years by professional cat breeders striving to match or improve on the breed 'standard', a detailed description of the various points (length and colour of coat, body and head shape, etc) according to which a particular breed is judged in competition.

The majority of cats, both wild and domestic, have fur that is of short or medium length. Long fur in cats can occur either as the result of a 'one-off' genetic mutation, or through the inheritance of the recessive gene for long hair. Long-haired cats were well-established in Persia (now Iran) and Turkey

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long before the ancestors of most modern long-haired show cats were taken to Europe and America towards the end of the nineteenth century. Today's pedigree longhairs of Persian type have a cobby (sturdy and rounded) body, a very luxuriant long coat, short, thick legs, a round head, round face, very short nose and large, round, orange or blue eyes. There are separate show classes for Persians of different colours. Also shown in their own classes are various non-Persian longhairs, including Chinchillas, Himalayans (also called Colourpoint Longhairs) and the Turkish Van.

Short-haired pedigree cats can be divided into three main categories: the British Shorthair, the American Shorthair and the Foreign or Oriental Shorthair. To the uninitiated, British and American Shorthairs appear to be no more than particularly fine examples of the non-pedigree family cat. The reality is that selective breeding programmes have achieved a consistency of conformation and coat characteristics in the different pedigree lines that could never be achieved by chance. Pedigree British Shorthairs have a cobby body, a dense, plush coat of a specified colour, short legs, round head, a somewhat short nose and large round eyes of a designated colour. By comparison, pedigree American Shorthairs have larger and less rounded bodies, slightly longer legs and a less round head with a square muzzle and medium-length nose.

The third main group of pedigree cats are the Foreign or Oriental Shorthairs. Some of these breeds, notably the Siamese, Korat and Burmese, did indeed originate in the East, but today these terms are used to describe any breed, of whatever origin, that displays a range of certain specified physical characteristics. Foreign and Oriental cats have a slim, supple body, a fine, short coat, long legs, a wedge-shaped head, long nose, large, pointed ears and slanting eyes. Finally, also included within the pedigree short-hairs, are various miscellaneous breeds which have been developed to satisfy a perhaps misplaced delight in the unusual. Examples include the Scottish Fold, with its forward-folded ears, the Munchkin, with its short, Dachshund-like legs and the apparently hairless Sphynx.

#### Questions 1–6

Complete the table below

Choose NO MORE THAN THREE WORDS from the reading passage for each answer.

Features	Coat	Body	Legs	Head	Nose	Eyes
Persian longhairs	luxuriant and long	cobby	1	round	very short	round orange or blue
British shorthairs	dense and plush	2	short	round	rather short	large and round, designated colour
American shorthairs	dense and plush	larger and less rounded	slightly longer	less round	3	
Foreign shorthairs	4	slim and supple	long	5	long	6

#### Questions 7-11

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

- 7 What name does the writer give to breeds such as the Persian, Russian Blue and Siamese?
- 8 What is the name given to the description of physical features by which a pedigree cat is judged?
- 9 In which century were long-haired cats first exported from Persia?
- 10 What class of cat does the Chinchilla belong to?
- 11 What remarkable characteristic do Scottish Fold cats have?

#### Questions 12 and 13

Choose the correct letters, A, B, C or D.

- 12 The distinctive features of most pedigree cats are the result of
  - **A** enhancing characteristics that appear naturally in cats from a particular region.
  - **B** using breeding schemes to promote features which are found in non-pedigree cats.
  - C genetic changes which occurred spontaneously in some cats in the late nineteenth century.
  - D a misplaced pleasure in producing unusual looking cats.
- 13 The writer's main purpose in this article is
  - A to outline the history of breeding pedigree cats.
  - B to criticize the practice of producing odd characteristics in cats.
  - C to classify the different breeds of pedigree cats.
  - **D** to compare the respective practices of cat and dog breeders.

#### 2 Answer these questions.

- a Are cats and other animals common pets in your family? Why/Why not?
- b What other kinds of pets are popular in your country?
- c What are the benefits of keeping pets for young people? For old people?

#### **Technique**

#### Short answer questions

- Look for a scan word in each question.
- 2 Locate where the answers begin and end in the reading passage using the scanning words. Look at the names in questions 7 and 11.
- 3 In the passage, put a box around all the names from the questions.
- 4 Number the names in the text according to the question.
- 5 Read around the names to find the answers. Try to complete several items at the same time.