

2 Extreme nature

Reading

Before reading

- 1 Discuss these questions.
 - 1 What's the difference between a volcano and a mountain?
 - 2 Why are volcanoes dangerous?
 - 3 Do you know any famous volcanoes? Where are they?
- 2  Read and listen.



Volcanoes

There are volcanoes all over the earth. They can be on land, **underground**, or under the sea. They can be dormant, which means they may erupt again, or they can be extinct, which means they will not erupt again. There are different types of volcanoes and some are more dangerous than others.

Volcanoes become dangerous when they erupt. Volcanoes erupt when red-hot rock, called magma, **rises** from inside the earth and comes out of a **hole** in the ground. Some of it flies into the air, along with black **ash**. You can see this from many kilometres away. When the rock comes out of the hole, it is called lava, and it is so hot it is **liquid**. It can move across the land. Lava can destroy trees, roads and homes.

When lava cools, it becomes solid rock and **forms** a mountain shape. These types of volcanoes are called stratovolcanoes, and are the most common type. One of the most famous stratovolcanoes is Mount Vesuvius in Italy. In 79 AD, Mount Vesuvius erupted and completely **buried** the city of Pompeii. In 1883, a stratovolcano called Krakatau in Indonesia erupted, destroying more than a hundred towns, and causing big changes to the environment and the climate. Mount Vesuvius is dormant and has not erupted since 1944. Krakatau erupted as recently as 2009.

There are also volcanoes under the **surface** of the sea. These are called submarine volcanoes. If a submarine volcano erupts many times, it grows until it **reaches** the surface of the sea. The top forms an island. In 1963, fishermen near Iceland were surprised when they saw ash and **steam** rising from the sea. It was a submarine volcano. It grew and formed an island called Surtsey. The Hawaiian islands, in the middle of the Pacific Ocean, were also formed by submarine volcanoes, millions of years ago. Now, they are visited by thousands of tourists every year, even though they are not extinct and could erupt at any time.

Supervolcanoes are much bigger than stratovolcanoes and are underground. They are the most dangerous of all volcanoes. You can't see them, but you can see hot water and steam rising from thousands of holes. The largest supervolcano is in Yellowstone National Park in the USA. If it erupted, the **explosion** would cause the sky to turn very dark and there would be black rain. A supervolcano eruption would cause our climate to change completely. The temperature across the world would **fall** because the ash in the air would stop heat from the sun from reaching us. Even though the eruption might only last a few weeks, these changes would last for many years. Luckily, these volcanoes don't erupt very often – only once about every 600,000 years.

Vocabulary

3 Match the words from the text to the definitions.

- 1 ash (noun) dark powder that is left after something has burned in a fire
- 2 _____ (verb) goes up
- 3 _____ (noun) very hot water that has changed into white gas
- 4 _____ (verb) put under the ground
- 5 _____ (noun) something bursting into lots of small pieces with a loud noise
- 6 _____ (noun) the top part of something
- 7 _____ (verb) go down quickly
- 8 _____ (verb) arrives at or touches
- 9 _____ (noun) below the surface of the earth
- 10 _____ (noun) not gas and not solid, for example, water
- 11 _____ (verb) makes, becomes or changes into
- 12 _____ (noun) an opening in something

Reading comprehension

4 Complete the facts. Write one word in each gap.

- 1 Volcanoes can be under the earth or under the sea.
- 2 _____ volcanoes can erupt again.
- 3 When a volcano erupts, you can see _____ from far away.
- 4 When a volcano erupts, _____ can destroy whole towns.
- 5 The last time Mount _____ erupted was in 1944.
- 6 Surtsey is an _____ that was formed by a submarine volcano.
- 7 If a supervolcano erupted, our _____ would change.
- 8 _____ volcanoes are the only ones that are not dangerous.

5 Match the sentences with the pictures.

They look like mountains.
They start under the sea.
They are under the earth.

When they erupt, they can make islands.
They are the most dangerous volcanoes.
They are the most common volcanoes.



6 Match the two parts of the sentences.

- | | |
|-----------------------------------|---------------------------------------|
| 1 Hot rock moving across land is | a a stratovolcano. |
| 2 Lava can destroy | b formed by submarine volcanoes. |
| 3 Submarine volcanoes are | c caused by supervolcanoes erupting. |
| 4 Krakatau is | d found in Yellowstone National Park. |
| 5 Large volcano eruptions can | e everything in a town. |
| 6 The Hawaiian islands were | f called lava. |
| 7 An example of a supervolcano is | g under the sea. |
| 8 Global climate change could be | h be seen from many kilometres away. |

7 Discuss these questions with a partner or with your class.

- 1 What was the most interesting thing you learnt from this text?
- 2 Would you like to visit a volcano? Why or why not?
- 3 Volcanic eruptions are very dangerous but they are natural events. What other dangerous natural events can you think of?



(A) Hurricanes are huge storms that can be hundreds of kilometres wide. They form in warm, wet conditions, usually over oceans and seas in tropical areas. They have winds that can travel up to 120 kilometres per hour and spin round. They can last for many days.

(B) Hurricanes travel quickly across the ocean and create huge waves. They sometimes go across land and this causes a lot of damage. Their winds destroy buildings, pick up cars and rip trees out of the ground. Their heavy rains can cause severe flooding.

(C) Scientists use computers and satellites to watch hurricanes. The scientists can then warn people when a hurricane is going to go over land so they can leave the area or go into special shelters.

We can make our writing easier to read by **grouping the information into topics**. Match these topics to paragraph A, B or C from the text.

Damage caused by hurricanes _____

Staying safe in a hurricane _____

What is a hurricane? _____

When you write, first make notes of your ideas. Then group your ideas into topics. Then write one paragraph for each topic.

8 Match these notes about tornadoes with the topics below.

- form during thunderstorms A
- strong ones cause severe destruction _____
- look like a spinning column _____
- can destroy buildings _____
- warn people to find safe shelter _____
- scientists follow tornadoes _____
- winds can travel up to 480 kph _____
- can predict arrival of tornadoes _____
- can pull cars and trees up in the air _____
- usually last a few minutes _____

- A What is a tornado?
- B Damage caused by tornadoes
- C How science can help

9 Now use the notes to write three paragraphs about tornadoes.



TORNADOES

Fact Sheet

- A What is a tornado?
- B Damage caused by tornadoes
- C How science can help

