

11 Volcano

Discover Grammar

A Listen and read about Brendan who studies volcanoes.  24



Brendan thinks it's important for scientists to tell people when a volcano isn't safe. He studies volcanoes so that people are told when it is dangerous in plenty of time.

Brendan has made a film about volcanoes. In the film, rocks inside the volcano melt. This is magma. Magma is pushed to the top of the volcano. The ground shakes. Suddenly rocks, magma, and hot gas explode into the sky. It's terrifying. People hear the noise from far away, even on other islands.

The eruption is so loud, the noise is heard a long way away. Hot lava travels down the mountain at 50 kph. Ash falls from the sky. The mountain is destroyed.

Brendan's work helps keep people safe. People living nearby are taken to safety, and no one is hurt. Their houses aren't damaged, but they are covered in ash. Their crops are buried. People can't return home for a year.

B Find and underline the past participles of these verbs in the text.

tell push hear destroy damage bury

C Look at the underlined past participles. Circle the verb that comes before each one. What do you notice?

Learn Grammar

A Read and learn.

Passive

In English, we can often say things in two ways, using the active and the passive.

The ash buries the crops. (active) *The crops are buried by the ash.* (passive)

We often put the most important information at the start of the sentence.

In the first sentence, the focus is on the ash. In the second sentence, the focus is on the crops.

Make the simple present passive with subject + *am / is / are* + past participle (*seen, played, etc.*).

Affirmative

The noise is heard from far away.

People are told when it is dangerous.



Negative

Magma isn't made from gas.

Their houses aren't damaged.

Questions

Is the mountain destroyed by the volcano? *Yes, it is. / No, it isn't.*

Are the people taken away by bus? *Yes, they are. / No, they aren't.*

Short Answers

Use the passive when you don't know or it isn't important who or what does the action.

People are taken to safety. (e.g. by helicopter)

Magma is pushed to the surface. (by pressure in the mountain)

Use *by* to say who or what does the action.

People are asked to leave by the police. *Crops are buried by the ash.*

Remember! You can't use some verbs (such as *cry, die, arrive, wait*) in the passive voice.

B Complete the sentences. Use the simple present passive.

- 1 People _____ (tell) when a volcano is dangerous.
- 2 Different scientific instruments _____ (use) to collect the data.
- 3 During an eruption, magma _____ (push) to the surface.
- 4 The noise _____ (hear) a long way away.
- 5 People _____ (take) to safety as quickly as possible.
- 6 Their homes _____ (damage), but they _____ (not destroy).
- 7 They _____ (not allow) to return home for a long time.
- 8 Their crops _____ (cover) in ash.

C

Read the text on page 54 again. Look at the information. Which sentences are true? Which are false? Correct any false sentences.

- 1 The mountain is destroyed by the scientists.
- 2 The people are taken to a dangerous place.
- 3 The noise is heard by people a long way away.
- 4 Their homes are covered in lava.
- 5 Their crops are eaten.

False the eruption

D

Read the sentences and circle the correct verbs.

- 1 This sensor is checked / are checked every hour.
- 2 We read the data. It isn't given / aren't given to the police until it is checked.
- 3 Tourists to the area is asked / are asked not to climb the mountain.
- 4 People aren't sent / isn't sent away unless it is too dangerous.
- 5 They isn't allowed / aren't allowed to drive near the volcano.
- 6 It's difficult when local people are told / is told to leave their homes.

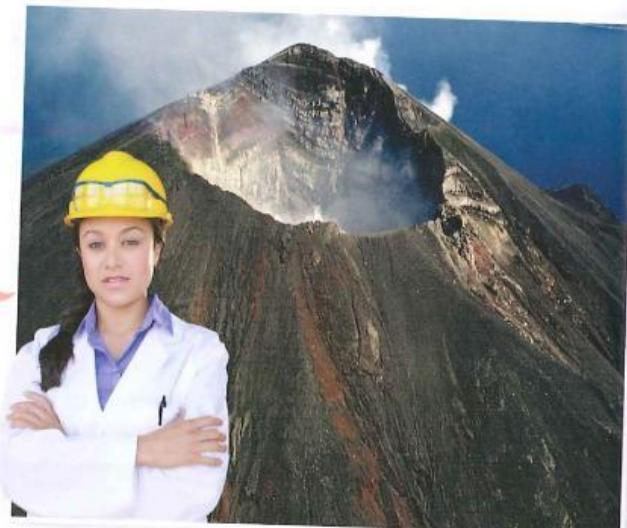
E

Complete the sentences using the correct form of the passive.

Hi there. I'm Eva Rojas. I'm a scientist. I work with Brendan at the Scientific Observatory. This is where reports ¹ _____ (write) and ² _____ (send) to the local police. Our job is to make sure the local people are safe.

Have you ever wondered how volcanoes ³ _____ (measure)? We use a lot of different instruments, like seismographs, radio, and GPS devices. Gas samples ⁴ _____ (take) from cracks in the mountain. They are poisonous, so we must be very careful!

Here's my latest report:



5:07 a.m. The ground shakes. Magma ⁵ _____ (push) to the surface. Gases are escaping. Our instruments record a lot of activity. My boss ⁶ _____ (call) at home and he comes to the center right away.

6:12 a.m. We are on red alert. Schools and farms nearby ⁷ _____ (close). People ⁸ _____ (not allow) near the area.

9:27 a.m. Local people ⁹ _____ (tell) to leave their homes. Many ¹⁰ _____ (take) by bus to shelters in the next city. They won't be able to return for a few days.

3 days later

7:48 a.m. The volcano erupts. But thankfully, everyone is safe.

F

Listen and check your answers.  25

G Underline the verbs in the active sentences. Then change the sentences into the passive.

1 They plant many different crops in the soil.

Many different crops are planted in the soil.

2 They grow grapes, beans and tomatoes in these fields.

Grapes, beans, and tomatoes _____.

3 In other places, they grow rice on the rich volcanic land.

In other places, rice _____.

4 They make electricity from the steam.

Electricity _____.

5 They close the schools in the summer.

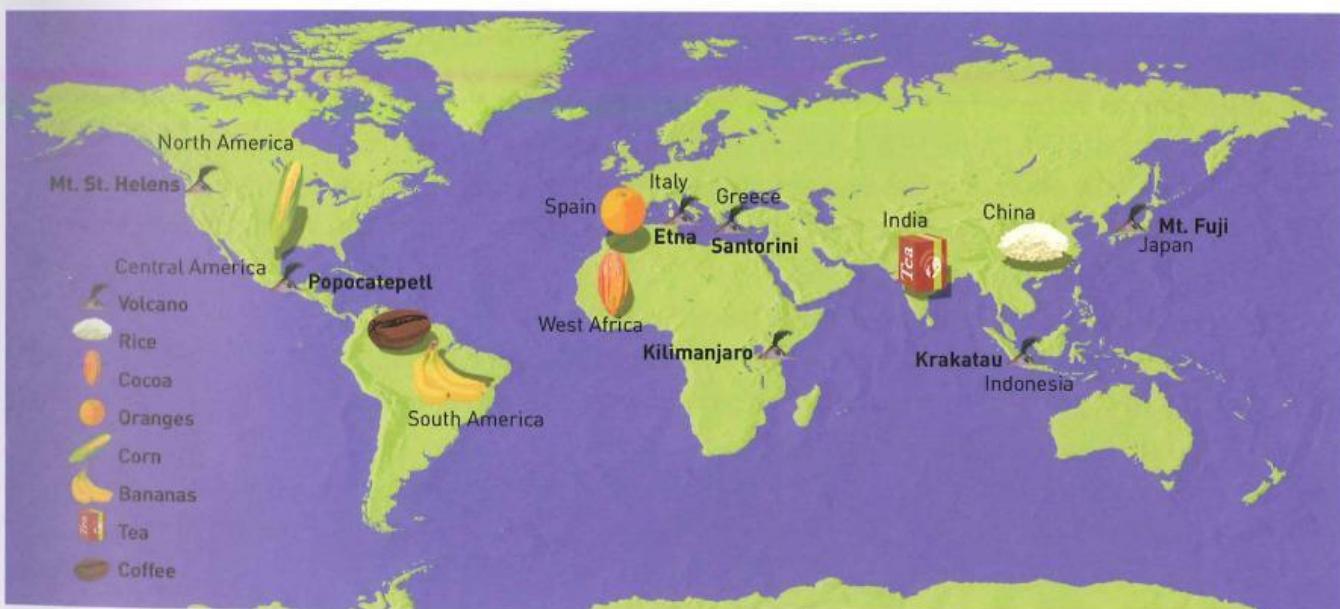
The schools _____.

6 They need the children to work in the fields.

Children _____.

Let's Talk!

H Look at the world map. It shows where some famous volcanoes are found. Find four volcanoes. Then tell your partner where they are found.



I The map also shows different crops which are grown in those areas. Ask your partner where three different crops are grown.

Where is rice grown?

Where is cocoa found?

Where are oranges grown?