



2.4

Anak Krakatoa



Krakatoa is an island in the Sunda Strait between Java and Sumatra in Indonesia. It is known for its volcano which erupts regularly.

What is a volcano? A volcano is a crack or opening in the earth's crust. There is hot molten rock near the earth's centre. Sometimes, it rises to the surface of the earth through such a crack or opening and flows out. When this happens, we say that the volcano has erupted.

A volcanic eruption happens on a tremendous scale. Thick, dark clouds of smoke rise high from the opening

and spread in the sky.

Big, glowing, burning chunks of rock and red hot lava are thrown out of the crack in the earth. Very hot mud and ash are also thrown out. A great volcanic eruption can change the landforms in an area.

Volcanoes are popularly classified into three categories:

(a) Active volcanoes: Active volcanoes erupt regularly.

(b) Dormant volcanoes: Dormant means temporarily inactive or in a deep sleep. We find information about the eruptions of these volcanoes in history, but now they are quiet.



(c) Extinct volcanoes : Geographers can guess (by looking at the rock formation) that they used to erupt long, long ago, but there is no record of it in history. An extinct volcano is unlikely to erupt again.

Krakatoa is an active volcano. It has erupted many times causing great disasters. The worst of the eruptions took place in August 1883. The volcano erupted with such a loud boom that it was heard more than 3500 km away in Australia. It is believed to be the loudest sound that man has ever heard. The island, which was a volcanic mountain, collapsed on itself. The dust that was thrown up in the eruption rose to about 80 km in the sky. It spread in the sky around the world and later settled in different parts of the world thousands of kilometres away.

The eruption caused giant waves or tsunamis in the sea near the island. About 165 villages and towns were destroyed due to the eruption and the tsunamis. The eruption destroyed two thirds of the island of Krakatoa. It collapsed beneath the surface of the sea, creating a huge underwater volcanic crater or hole. The hole was more than 6 km wide.

Then, in 1927, a plume of smoke rose out of the water on the crater. It was followed by another eruption. A few days later, a new island volcano broke water. How did it happen?

When the underwater volcano threw up ash and rock, it was quickly taken

away by the sea water. But then the lava started flowing out of the crater faster. This volcanic material was not all taken away by the waves, and a new mountain began to grow. It kept growing and was soon seen above the water. Thus, a new island grew from the old island of Krakatoa. It was named ‘Anak Krakatoa’ or the ‘Child of Krakatoa’.

Anak Krakatoa is still an active volcano. Eruptions have begun again since 1994. It lies quiet for a few days and then again there are eruptions. With more lava flowing out, the island is still growing bigger. Since 1950, the island has grown at an average rate of five inches per week!

A part of the old island known as Rakata is still visible in the sea, a little away from the new arrival – Anak Krakatoa.

After Krakatoa’s eruption in 1883, all the surrounding islands and coasts were covered with hot ash. No life remained. When a scientist visited it in 1884, he found just one spider there.

But the living world on Rakata was not lost and gone forever. The wind and the sea brought seeds of plants to the island. Some seeds came with the birds who flew over the island. Plants and animals that live in the sea came to the coasts again. Small land animals like ants, termites or even rats and lizards travelled to the island on plants floating in the sea. One edge of the island was

soon teeming with plants and animals.

It was like a laboratory where scientists can see how living things slowly develop in an area. Today, scientists

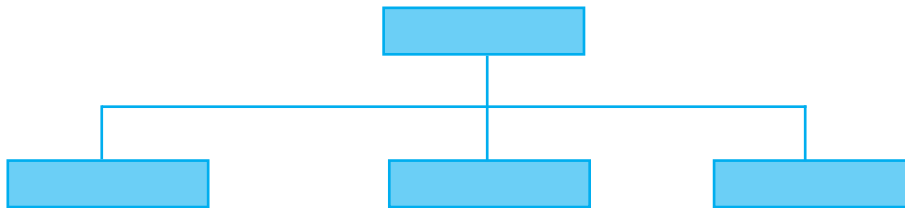


can observe this also in a part of Anak Krakatoa, which does not get covered with volcanic ash.

The western coast of Java was greatly affected by Krakatoa's eruption. Very few human beings were left there. But the wild animals and plants in that area grew in number again. In fact, the wildlife grew naturally since there were no human beings to interfere with it – there was no one there to cut the trees or kill the animals. So, this region became rich in wildlife.

POINTERS

1. Draw a diagram to show a volcanic eruption from its description given in this passage. Label the diagram. Show the following in it : Volcano; earth's crust; crack in the earth's crust; hot molten rock; red, hot lava; smoke; ash; burning chunks of rock.
2. Show the three categories of volcanoes using the following tree diagram structure.



Write a very short description of each category below the box.

3. Show the stages in the process in which Krakatoa collapsed and then Anak Krakatoa formed in the course of volcanic eruptions. Use the flowchart given below.



4. Draw a diagram to show how life returned to the island. Label the diagram. (Use the technique of drawing diagrams when you study science, geography, etc.)
5. Write short notes on the following :
(1) The 1883 eruption (2) The living world on Rakata
6. Find the pronunciation of the following words from a good dictionary.
strait, eruption, tremendous, dormant, extinct, tsunami, crater, plume.

7. Read aloud with the leader : Form groups of five. Read the passage aloud in groups. The leader begins every sentence and stops after a few words. The other members complete the sentence, reading it aloud in chorus.
8. Look at the following words carefully for one minute. Now close your book and try to write down as many of the words as you can remember.

crust tremendous lava crater volcanic tsunami island extinct
disaster dormant eruption plume inland molten active coast

9. Read the passage and find the verbs used with the following nouns and phrases :

- volcano • molten rock • volcanic mountain • dust
- 165 village and towns • the wind and the sea • seeds • birds

In the fifth standard, you have learnt to identify verbs like rise, flow, happen, etc. that are used in a sentence.

The verbs **be**, **have**, and **do** can be used as main verbs in a sentence.

be : am/are, is/are, was/were, being, been.

have : has/have, having, had

do : does/do, doing, did, done

Examples :

be : I *am* twelve years old.

They *were* ready.

have : I *have* a brother.

The dinosaur *had* a long tail.

do : *Do* it ! She *did* some work.

There are other verbs like **can**, **could**, **may**, **might**, **will**, **would**, **shall**, **should**, **must**, **used to**, etc. which show whether something is possible, allowed, necessary, etc. They are known as **modal auxiliaries or modal verbs or helping verbs**. We will look at their examples later on.

The verbs **be**, **have** and **do** are also used with the main verbs in a sentence to show certain things. Then, they are called **auxiliary or helping verbs**.

- ‘Do’ is used with the main verb –

(a) To form questions :

Do you know the answer?

Did you see the bird?

What *do* you want?

What *did* the queen *tell* them?

What *did* they *do*?

(b) To form negative sentences :

We *did not* go back.

- ‘Be’ and ‘have’ auxiliaries can also form questions and negatives.

‘Do’ is not needed when these are used.

Examples :

(a) Questions : *Are* you writing a story?

Is it necessary?

Have you written this?

Why *have* you come back?

(b) Negatives : I *was not* feeling well.

She *had not* seen the book.