



Class: 5

Subject: Science

Lesson-12- Natural calamities

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I. Key words:

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|-----------------|----------------|
| 1. calamity | 7. eruption |
| 2. pressure | 8. magma |
| 3. destitute | 9. vent |
| 4. epicentre | 10. landslides |
| 5. earthquake | 11. drought |
| 6. seismologist | 12. tsunamis |

II. Pre activity: Find out that how the natural elements like air, water and wind can be useful as well as harmful.

III. Name the following.

Q.1. Name any One active volcanoes in the Pacific Ocean.

Ans- The Ring of Fire

Q.2. Name the instrument used to measure the magnitude of earthquakes.

Ans- Richter Scale

Q.3. Write any two causes of droughts.

Ans- Hot and dry temperature, high evaporation rates

Q.4. name the inventor of the Richter scale.

Ans- Charles Richter

Q.5. Name the tsunami which occurred in 2004.

Ans- Sumatra-Andaman Earthquake

IV. Short answers questions.

Q. 1. What is natural calamity? How is different from volcano?

Ans- When the natural forces cause damage and destruction to life and property, it is called a natural calamity.

A natural calamity causes economic and environmental damage. Sudden changes in the temperature, pressure, sea level and some other causes bring natural calamities.

Volcanoes are a type of natural calamity. It is the eruption of extremely hot magma from under the Earth's crust in the form of lava.

Q. 2. What is a volcanic chamber?

Ans- The Earth's interior has hot molten rock called magma. There is a lot of pressure in the Earth's interior. This pressure pushes the magma up which sometimes rises upwards and gets collected right under the Earth's crust in something called a chamber.

Q. 3. What causes earthquakes?

Ans- The Earth's crust is made up of big and small plates called tectonic plates. Bottom layers of these plates are in a molten and extremely hot state, as it is very hot below the Earth's crust. The plates are constantly moving and sometimes colliding with each other. We cannot feel these movements as they move slowly and smoothly. Sometimes these movements can be harsh and can cause sudden tremors; resulting in an earthquake.

Q. 4. What causes landslides?

Ans- A landslide happens, when large stones and rocks slide down the slopes of mountains and hills with the mud, with great speed and force, which damages the land and also harms the people and property in the area. Landslides generally occur during the rainy season.

V. Long answers questions.**Q.1. Explain how volcanic eruptions occur.**

Ans- 1) The Earth's interior has hot molten rock called magma. There is a lot of pressure in the Earth's interior. This pressure pushes the magma up which sometimes rises upwards and gets collected right under the Earth's crust in something called a chamber.

2) If the Earth's crust is too weak to hold against this molten magma, the magma pushes against the cracks from its place in the chamber and continues to do so until it is able to make a hole in the crust and erupt out onto the surface.

3) This hole created by the magma is called a vent. When the magma comes out onto the Earth's crust it is called lava. On the Earth's surface, the temperature is comparatively cooler. So, lava quickly cools down and turns into a volcanic rock.

Q.2. Give any 5 problems that can be faced in a flood affected area.

Ans- Floods are caused by continuous heavy rainfall which raises the sea level as well as the water level in lakes, rivers, ponds and reservoirs, thus causing the water to overflow to the surrounding areas.

1) Serious floods submerge the land.

2) Sometimes after floods, the sanitary requirements of places and people might not be given as much importance. As a result, diseases and epidemics can break out and cause even more problem.

3) The loss of life and property greatly affects the survivors of floods

4) The loss of a close relative, friend or neighbor would emotionally affect the survivors.

5) After a natural calamity, survivors might experience emotional trauma or fear, the community might get displaced and family and friends might get separated. Many businesses shut down permanently. Floods sweep away homes and their possessions.

Q.3. Describe the effects of natural calamities.

Ans- Though human beings have managed to predict and prepare for the onset of all types of natural calamities; the sudden and forceful effects of natural calamities cannot be avoided.

Spread of disease: After a natural calamity, because of too much happening at once, the sanitary requirements of places and people might not be given as much importance. During such a time, diseases and epidemics might break out and create even more problems.

Emotional fall: The loss of life and property greatly affects the survivors of natural calamities. However, the loss of a close relative, friend or neighbor would emotionally affect the survivors. After a natural calamity, survivors might experience emotional trauma or fear, the community might get displaced and family and friends might get separated.

Physical destructions: Homes, vehicles and personal possessions are often destroyed very quickly during a natural calamity. In extreme cases, families are left homeless and without any financial means of recovery. Many businesses shut down permanently. Floods and tsunamis, sweep away homes and their possessions.

Q.4. What is a tsunami? How is it caused?

Ans- Tsunamis are giant sea waves which occur as a result of underwater earthquakes, volcanic eruptions or landslides. They can be as wide as 60 to 100 kilometres and as high as 50 feet. They can travel at a great speed of 8000 kilometres per hour. Tsunamis are caused by a movement of Earth's tectonic plates which displaces an enormous amount of water, sending powerful shock waves in every direction.

Q.5. Describe the precaution taken to prevent an earthquake.

- Ans-**
- 1) Many countries have started building earthquake-proof buildings.
 - 2) During an earthquake it is recommended to evacuate all the buildings as soon as possible.
 - 3) If outside, avoid standing close to tall structures. Move calmly. Do not take escalators or elevators to move up and down a building

Post-activity- Draw or paste the pictures of some natural calamities.

Subject Teacher

H.O.D.

Coordinator

Principal