ATOMIC ENERGY EDUCATION SOCIETY.

SUBJECT- GEOGRAPHY /CLASS VII

CHAPTER- 3 OUR CHANGING EARTH (MODULE-1/3)

(HANDOUT of MODULE 1/3)

Sub topic:- Movement of the Earth. Volcanoes and Earthquake

In this module, I am going to discuss the movements of the earth, volcanic eruptions and earthquake to you.

Before I start, we all do a small activity which is given in page no .12 of NCERT Geography book.

Take a small paper pellet and put it in a beaker half filled with water. Place the beaker on a tripod stand and heat it. As the water warms up, you will observe that the paper pellet is moving upwards along with the warm layers of water and then sinks back along the cooler layers of water. The molten magma inside the earth moves in a similar manner.

We all know that our Lithosphere is broken into a number of plates known as Lithospheric plates. Now the question is what is Lithosphere and Lithospheric Plates?

Lithosphere means the rigid outer part of the earth, consisting of crust and upper mantle.

Lithospheric Plates means the earth's crust consists of several large and some small rigid, irregularly shaped plates which carry continents and ocean floor.

These plates move around very slowly. You will surprise to know that they are moving a few mm each year. They are moving because of the molten lava inside the earth. The molten lava inside the earth moves in a circular manner.

This is due to the movement of the plates. The movement of the earth is divided on the basis of the forces which cause them.

Endogenic Forces --- The forces which act in the interior of the earth are called Endogenic forces. It sometimes produces sudden movements and at the other time produces slow movements.

Sudden movements like earthquakes and volcanic eruptions cause huge destructions in the earth.

The second force is

Exogenic Forces --- The forces that work on the surface of the earth are called exogenic forces. The examples are – river, wind, sea waves, glaciers etc. It is erosional and depositional in nature. It affects the formation of land, structure of mountains.

Now let us discuss what is a Volcano?

It is a landform, a mountain where the molten lava erupts through the surface of the earth. When the pressure builds up in the earth crust and this is the reason the volcanic eruption takes place. The word Volcano comes from a Roman God VULCAN.

What is Vent?

The opening of a volcano is called vent, where the volcanic materials emitted.

What is crater?

A crater is a circular depression in the ground caused by volcanic eruptions. It is bowl shaped.

What is Lava?

The molten magma which comes out due to volcanic eruption is known as lava.

There are three types of Volcanoes - 1) Active Volcanoes 2) Dormant volcanoes 3) Extinct Volcanoes.

What is an earthquake?

When the lithosphere plates move, the surface of the earth vibrates. The vibrations of the earth is called earthquake.

If you see the picture in page no 13, you will find certain terms.

Focus – This is where the earthquake occurs. It is the origin of seismic energy.

Epicenter --- The place on the surface above the focus is called the epicenter. The epicenter is worst affected due to earthquake.

You will do the small activity as given in page no 13 in your book regarding earthquake.

We all know that earthquake is a sudden event, so we cannot predict it. We can take some steps to minimize the loss of lives and property.

Some common predictions methods adopted locally by the people include studying animal behavior, fish in the pond get agitated, snakes come to the surface etc.

An earthquake can be measured with a device called seismograph. The magnitude of the earthquake is measured in a Richter scale.

How can we protect ourselves from an earthquake?

We have to take shelter in the safe spots like under a kitchen   counter, table or desk.

We have to stay away from fireplaces, areas around chimneys, windows etc.

We have to spread awareness among the friends and relatives.

By, Rajkumar Bhattacharjee TGT (S.ST)

        AECS NARWAPAHAR