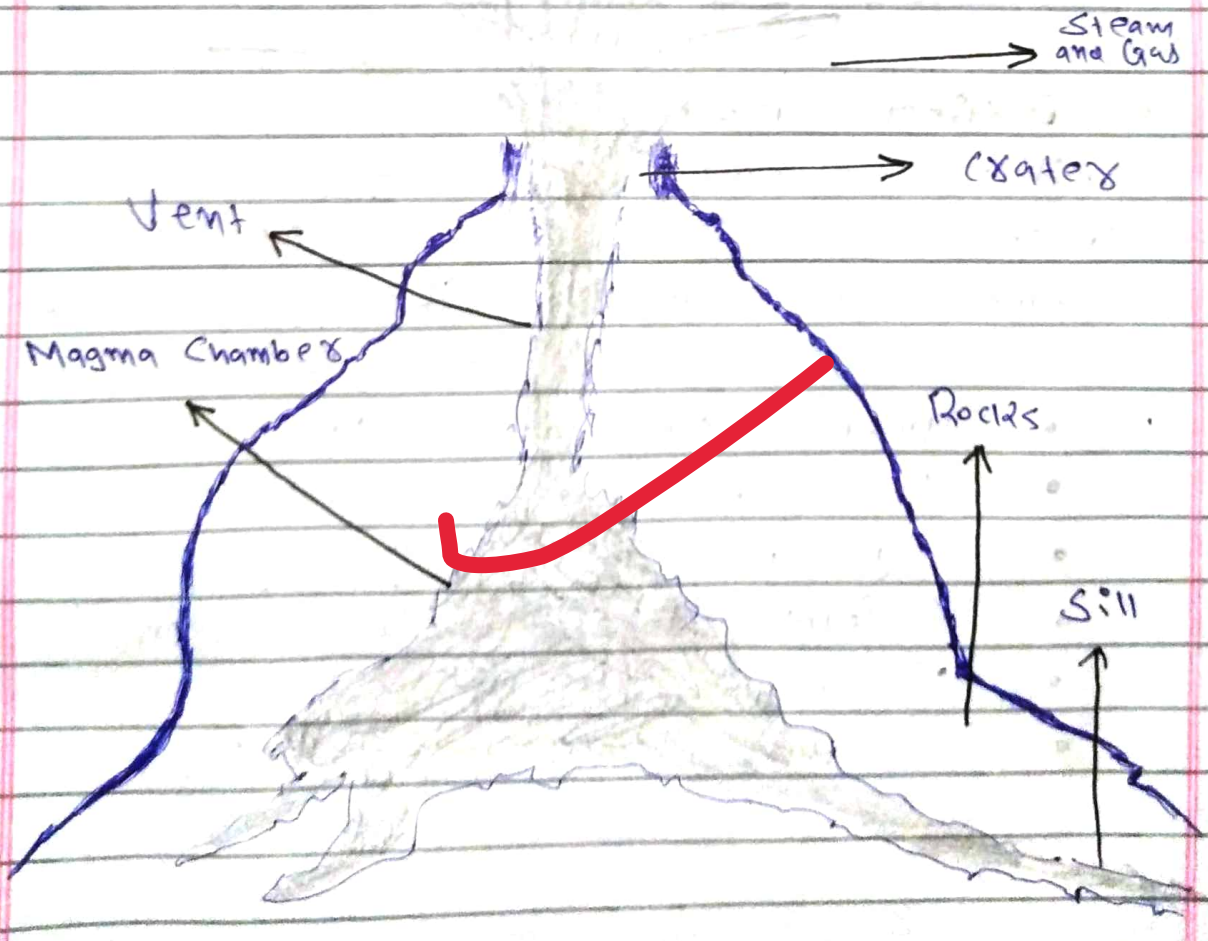
What do you know about volcanoes? Discuss the causes and effects of volcanic eruptions. (2022)

Ans: A volcano is simply an opening of earth's surface through which molten escapes onto the earth's surface.

1- The origin of the word volcano

The word volcano is derived from the name of Vulcano (a volcanic island in Aeolian island of Italy). Besides, the word volcano its came from Vulcan (the god of fire in Roman mythology). However, the study of volcanoes is called volcanology.



2- Classification of Volcano

a. Active Volcano.

These volcanoes exupt frequently and are still in active position. For example, Mount Hood is an active volcano that is currently dormant. In addition to it, Kilauea is also an active volcano that is currently exupting.

b. Dormant Volcano

These volcanoes do not exupt for very long time, but they can occur any time. It means they are expected to occur again. For example, dormant volcanoes are in Mount Kilimanjaro, Tanzania, Africa and Mount Fuji in Japan

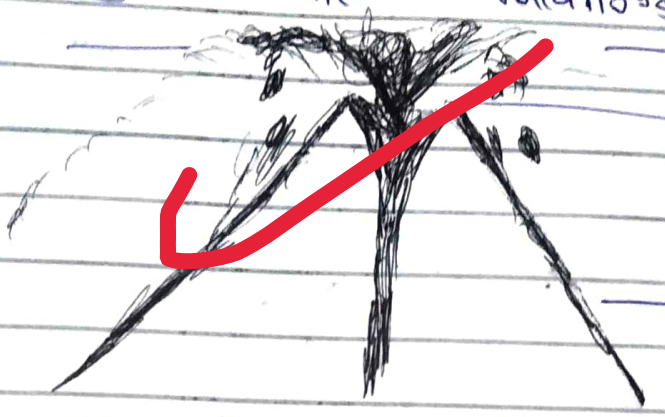
c. Extinct volcano

- Unlike dormant volcano, extinct volcanoes are not expected to exupt in future; they, to say, are dead volcanoes. For example:
  - Olympus Mons (on Mars)
  - Huascaran in Pexy
  - Kyush in Philippine sea
  - Mount Thielsen in Oregon
  - Tamu Massif in Pacific ocean
  - Waw Namus in Libya

3- Types of Volcano

a. Cinder Volcanoes

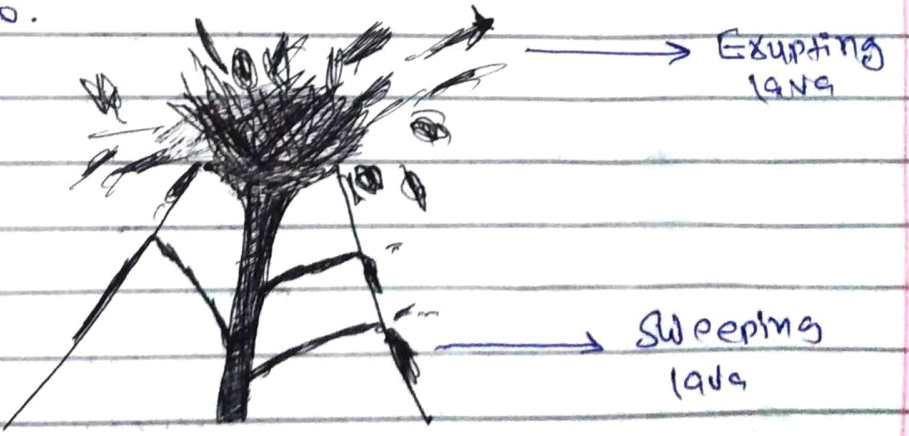
These Volcanoes throw magma into air, and it settles around the Volcanos opening.



Examples include Mount Suribachi in Japan, Smith, Taal, Mount Mayabobo in Philippines.

b. Composite Volcano

Composite volcano has multiple exuptions. It has both activities lava exuption and the lava that sweep sides of volcano.



Examples of Composite Volcanoes:

- Mount Fuji in Japan
- Mount Shasta in California
- Mount Hood in Oregon
- Mount Cotopaxi in Ecuador

Causes of Volcanic exuption

a. Hot temperature of earth crust

In comparison with the temperature on the surface of earth, it has very hot temperature inside. Earth mantle is too hot, and its temperature ranges from 1000 °C- elsius to 3000 °C elsius.

b. Melting of rocks

Inside the earth, there are rocks which melt due to high pressure and temperature.

c. light weight of melted substance

The melted substance are light and easy to float. However, it turns out into lava, and comes up easily.

d. Creation of the magma

Magma is composed of andestic and rhyolitic components along with waters, sulfur dioxide, and carbon dioxide in dissolved form. By forming bubbles, excess waters is broken up with magma. When the magma comes closes to the surface, the level of waters decreases and magma rises in the channel.

Good attempt!!

Effects of Volcanic eruption

a) Mass killing due to fire

A volcanic eruption can led to mass death. In may 1902, a volcanic eruption killed 29,000 people and destroyed the city of St. Pierre. this is the largest number of casualties for volcanic eruption this century.

b) Serious health issues of gas exposure

(is a result of longer exposure to volcanic gases, the severe health issues begin to develop. For examme, Bronchitis and infection of the lung. It also cause infectious diseases, i.e conjunctivitis.

c) The occurrence of earthquake

Volcano triggers earthquakes have the potential to cause cracks, ground deformation and damage manmade structures. The examples are Nevado del Ruiz (1985) and Cotopaxi (2002)

d) Volcanic landslide

The landslide that caused by by volcano is called volcanic land slide. For examples, lahars mudslide in Alaska.

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