

Summary of lesson 4

Effect of Geosphere

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Remember :

The geosphere includes the solid and melted rock inside Earth. It also includes the soil, rock pieces, and landforms on Earth's surface.

Geosphere and Layers of earth

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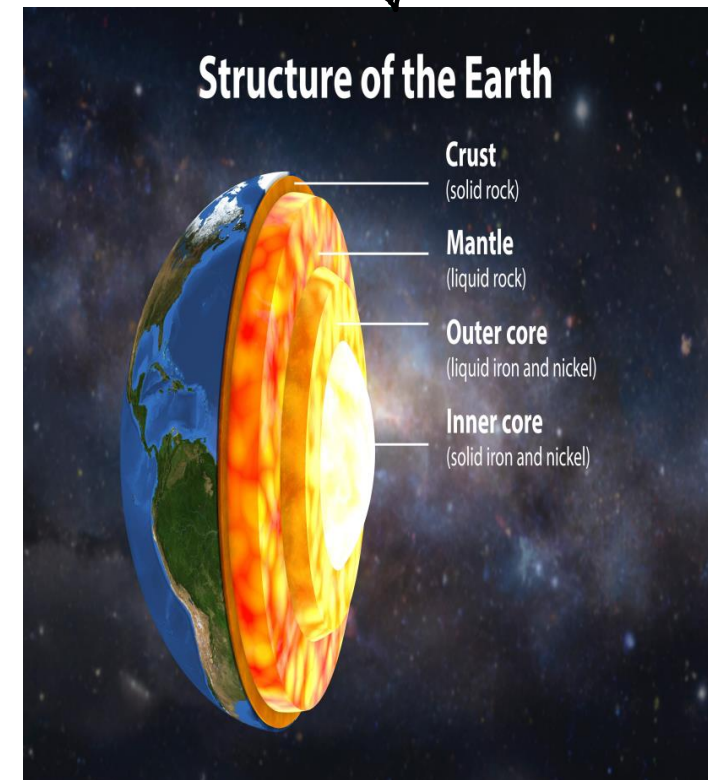
Molten Rock: Very hot melted rock found in Earth's Mantle.

Scientists divide the Earth into several different layers.

(4 layers)

- **Crust** - the rocky outermost layer(made of solid rock)
- **Mantle** - is just below the surface and (made partly of molten rock.)
- **Core**- It is very hot, (made mostly of iron). It is divided into two layers:
 - outer core (made of Liquid iron)
 - inner core (made of solid iron) (deepest layer)

You have to know how to label the layers in the diagram



Island building

Landform: a physical feature found on Earth's crust. The landforms are changing over time.

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What can change these landforms? **Weathering, erosion, deposition, and plate movement.**

tectonic plate: Large pieces of earth's crust (made of solid rocks).

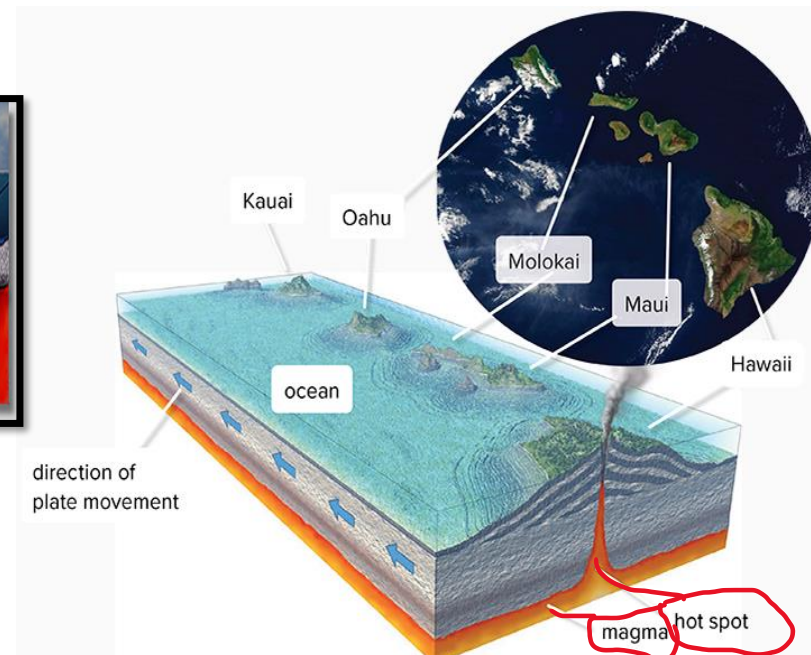
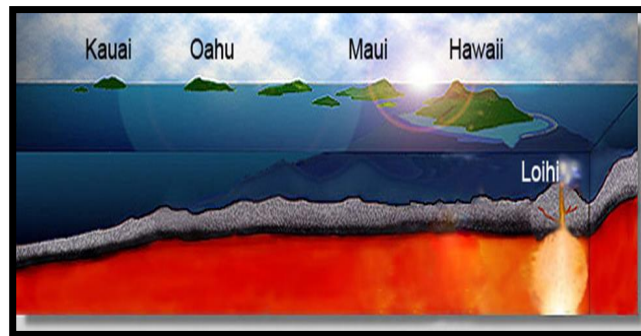
hotspot? An area where molten rock from within the mantle rises close to the Earth's Surface.

Magma: Molten rock under the earth.

Lava :Molten rock on the earth surface .

How Island is formed?

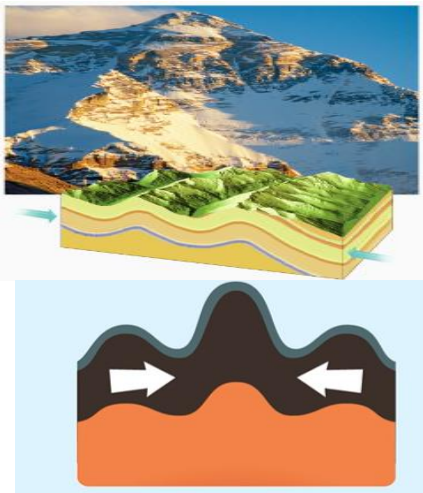
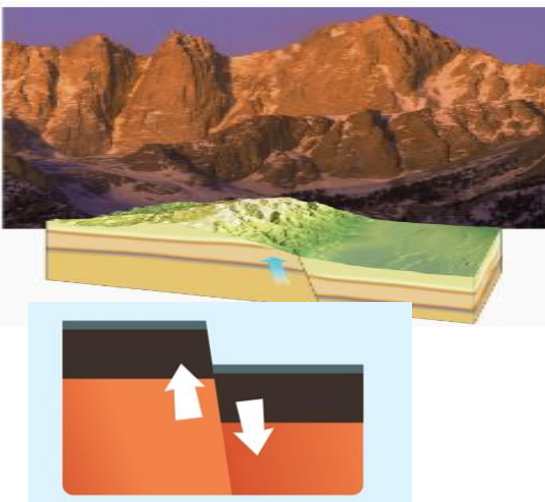
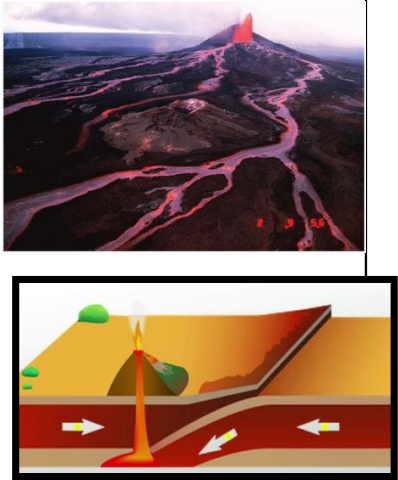
- When the plate passes over a hotspot.
- Over millions of years, lava erupting from the underwater hot spot formed a mountain.
- the mountain grew taller than the ocean's surface and became a volcanic island.
- As the plate moved, the island moved away from the hot spot, and a new island formed.



Mountains

What causes mountains to form? **Plate movement.**

What makes plates moves ? **Tension** (force that pulls things apart) and **pushing forces.**

Types of mountain	Folded mountain	Fault-block mountain	Volcanic mountain
Picture			
Direction of plate movement	It formed when plates are pushed together & Crust is forced upward	When one plate is pushed up and the other plate pushed down .	When one plate pushed below the other plate .
Example of this mountain	Himalaya mountains .	Sierra Nevada mountain	Cascade range

Volcanoes

What is volcano ?

an opening in
Earth's crust.

Where volcanoes can formed?

On land and on Ocean floor
.But most of the volcano
found on the ocean floor .

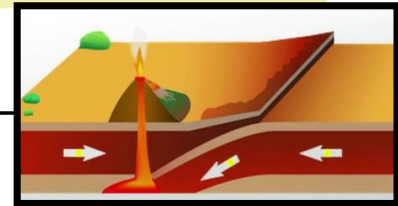
How volcanoes is formed ?

A plate is pushed deep below another plate.

The lower plate melts under very high temperatures and forms magma.

The pressure on the magma becomes big enough to cause a crack in the Earth's

Magma erupts to the surface and is now called lava.



Stages of Volcanoes



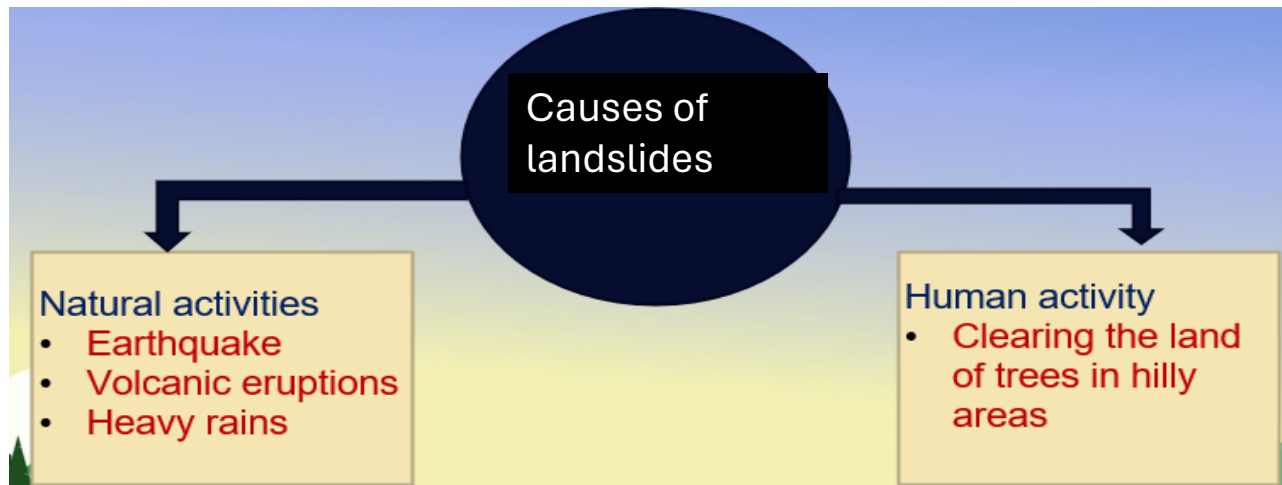
An Active Volcano
Is one that is
currently erupting or
has recently erupted

Dormant Volcano
Has not erupted
for sometime, but
may erupt in
future

Extinct Volcano
That will not
erupt again

LANDSLIDE AND MUDSLIDE

Landslide :Is a Sudden movement of large amount of Soil & Rocks down a slope.



Mudslide :Landslide of mud .

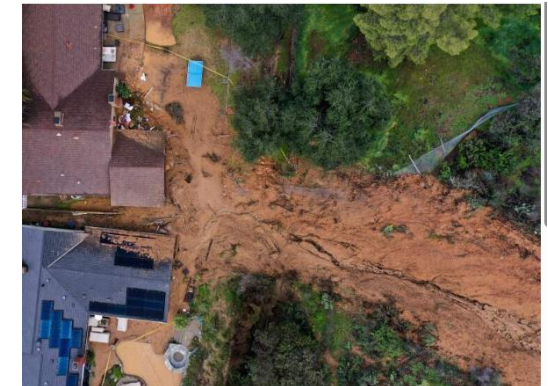
How mudslide is formed ?

Step 1:Heavy rain can cause the soil in landslide to soak in water.

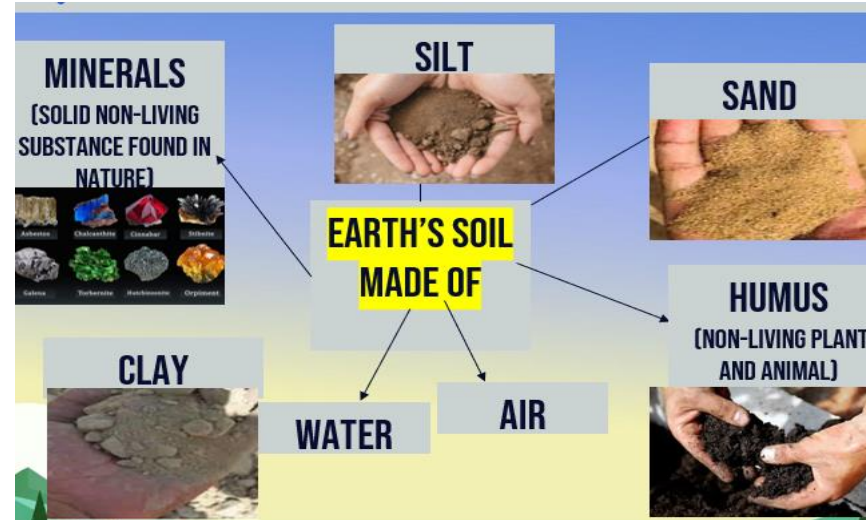
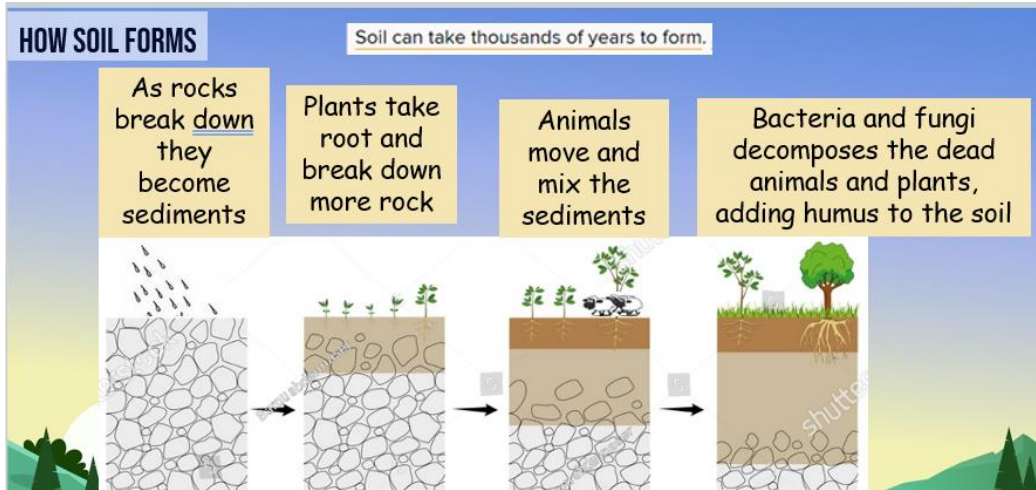
Step 2: The soil become muddy and heavy.

Step 3 : Heavy mud cannot hold on to a slope .

Step 4 : Mudslide is formed and it can knock the trees and destroy what ever in its path.

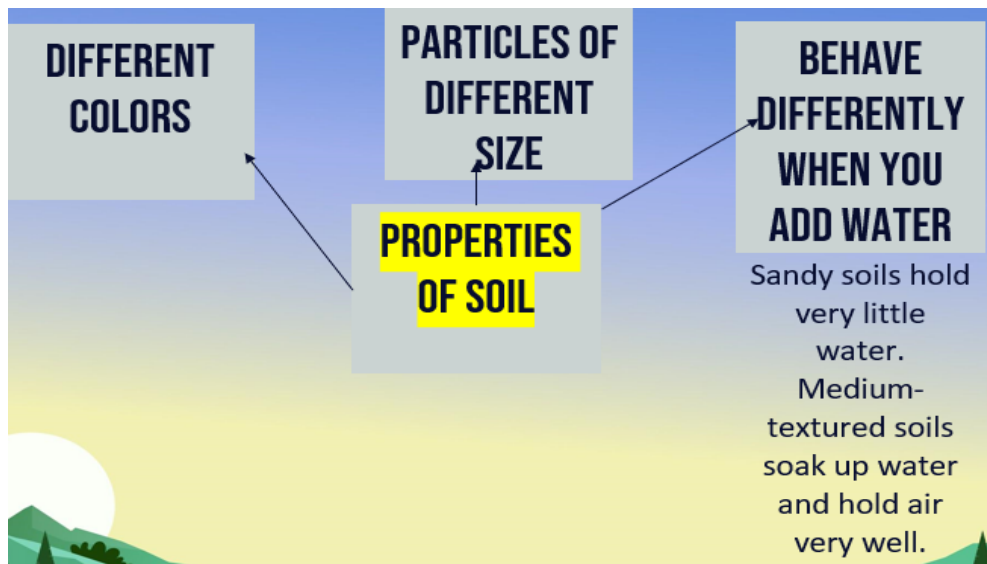


Soil



Why humus is important for soil ?

Because its provide it with nutrients which help plants to grow better.



Types of soil

Forest soil : type of soil that has little humus and is poor in minerals. It is good for trees that have deep roots.



Desert soil : Type of soil that is sandy has no humus. is rich in minerals, and it needs water to grow plants.



Grassland and prairie soil : Type of soil that that found between rocky mountains and eastern forest , its rich in humus and rich in minerals, It is good for growing crops like wheat and corn.

