

SCIENCE

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Name: _____

No. _____

Section: _____

Subject: _____

Date _____

1. Earth's Crust

- Earth's oceans dominate the surface, while continents and islands make up the remaining land areas.
- Most of Earth is covered by oceans (70%), and land only makes up a small portion (30%).
- Earth has more water than land. 70% water, 30% land.
- Continental crust is thicker, lighter, and forms land masses, while oceanic crust is thinner, denser, and forms ocean floors.
- Continental crust is less dense (low density) and thicker, allowing it to "float" above the mantle.
- Subduction occurs because oceanic crust is heavier, so it moves under the lighter continental crust.

2. Volcanoes

- Type and location of volcano depend on magma composition and eruption style.
- Active volcano shows signs of recent eruptions and can erupt anytime, posing danger.
- Shield volcanoes have low-viscosity lava, causing gentle eruptions.
- Composite volcanoes are known for steep slopes and explosive eruptions.
- Thick lava builds steep cones, while thin lava spreads widely. Therefore, lava viscosity affects cone steepness.
- Low-viscosity basaltic lava produces wide, gently sloping shield volcanoes.
- Earthquakes and volcanoes are concentrated in areas of plate boundaries, like the Pacific Ring of Fire.

- Crust movement contributes to mountain building.
- plate collisions uplift mountains and trigger earthquakes
- Lithosphere is the rigid outer layer of Earth divided into plates. It consists of the crust and upper mantle.
- plate movement controls location of earthquakes, volcanoes, mountains.

3. Typhoon (Philippines)

- typhoons form warm ocean water.
- the main source of typhoons affecting the Philippines is the Pacific Ocean.
- Moist air carried by storm causes heavy rainfall.
- the eastern part of the Philippines is affected first since typhoons travel westward from the Pacific Ocean.
- Landforms weaken typhoons as they lose strength and moisture after hitting land.
- warm water makes typhoons stronger by providing heat moisture.
- Authorities like PAGASA track typhoons and give warnings and aid.

4. Tides

- Neap tides occur when the sun and Moon form a right angle, causing lower tides.
- Spring tides happen when the sun and Moon line up, making tides higher and low tides lower.
- Spring tides are stronger because the sun and Moon gravity's work together.
- Tidal power comes from the movement of tides to make electricity.