

Becky Blake

study skills for rockstars

CHAPTER 12 DOWN TO EARTH

EARTH

- Instantly change Earth's shape
- Naturally occurring
- Volcanoes & Earthquakes
- Erosion & weathering take a long time → many years
- 71% of planet
- Hydrosphere (water)
 - liquid
 - mostly water
- Lithosphere (solid)
 - rocks
 - minerals
 - soil
 - 29% of planet
- Layer of gases
 - Atmosphere
 - 78% Nitrogen
 - 21% oxygen
 - 1% Carbon Dioxide
 - smoke
 - Froth
 - Throws out steam, gassy magma, dust
 - ash

VOLCANOES

- Gas & magma through central "vent"
- Source molten material
- Magma Chamber
- Magma filled w/ gas so rises (lighter than rock)
- Formed forces in side Earth
- ↑↑↑ Magma cracks in crust
- Active
 - still erupts
 - Sleeping
 - Dormant
 - Extinct - unlikely to erupt
- erode easily
- cone-shaped
- steep sides, narrow base
- Cinder cones
 - cinders large droplets hardened lava
 - little or no lava
 - Volcanic cinders
- Composite Cones
 - More lava = gentler slope
 - Volcanos - not in all parts of world.
 - alternate layers - lava cinders
 - towering, cone-shaped layer cinders
 - layer lava

TYPES OF VOLCANOES

- Determined by shape of cone & types materials
- Shield
 - liquid lava
 - broad shield-shape cone
 - gentle slopes
 - lava out of vent, spreads wide area
 - crater
- Composite Cones
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EARTHQUAKES

- Point in fault where started called "focus"
- Center earthquake on land = epicentre
- Caused earth's crust split by long, deep cracks/faults
- Pressure too great blocks suddenly slip
- can be 100's of km long
- Measured on Richter scale
- Each number 10x measured movement
- 6 & over = major damage
- 100 → 700 km deep in crust

IGNEOUS ROCK

- when lava cools, forms
- contains crystals
- eg:
 - Baby Grace Pretends To Do outrageous Games
 - Basalt
 - Granite
 - Pumice (lava froth)
 - Tuff (ash)
 - Dolerite
 - Obsidian (glass)
 - Gabbro

Diagram of Earth's Interior:

- Crust: thinner under sea floor, Solid Rock Layer, Soil
- Mantle: 200°C → 500°C, mostly hot molten rock, some solid, always moving, can see in volcano eruption
- Outer core: 2000 km thick, contains molten iron & nickel
- Inner core: 2-3000°C, 4000°C, centre, Solid iron/nickel
- Deeper into Earth, greater pressure, Intense pressure solidifies liquid

Diagram of a Volcano:

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