



Chapter 2

Earth's Physical Geography

Section 1

FORCES SHAPING EARTH

OBJECTIVE:

**UNDERSTAND THE PHYSICAL PROCESSES THAT
SHAPE THE EARTH'S SURFACE.**

Inside the Earth

- Earth is partly liquid in the center- has layers:
 - Solid inner core- hot iron and metals
 - 3200 miles below surface
 - Outer core liquid- 8500 degrees F
 - Mantle- hot dense rock- 1770miles thick
 - Inner mantle is solid, out mantle can be shaped and melted (magma)- released past the crust as lava

Shaping the Earth's Surface

- Plate Movements
 - Plate tectonics- how continents were formed and move
 - Continental drift
 - 1in to 7in per year
 - Originally one giant landmass- Pangea
 - Began to separate 200 million years ago

Shaping the Earth's Surface

- When Plates Meet
 - Some plates are pulling apart- usually under the ocean but also in Iceland and East Africa
 - Plates also collide- form mountains- Himalayas in Asia
 - Continental and ocean plates collide- ocean plate goes down causing volcanoes- Andes of South America
 - Also cause earthquakes- Ring of Fire
 - Some plates rub against each other- cause cracks called faults- San Andreas fault

Shaping the Earth's Surface

- Weathering
 - Water and ice, chemicals, and plants break rocks apart into smaller pieces
 - Water into cracks, freezes then expands
 - Chemicals eat away rock and stone

Shaping the Earth's Surface

- Erosion
 - Water, wind, and ice can move weathered rock away- erosion
 - Grand Canyon
 - Glaciers carve valleys