

### III. Section 3 Volcanic Landforms

#### A. Soils From Lava and Ash

1. Shield Volcanoes- thin layers of lava pour out a vent and harden on top of previous layers creating a gently sloping mountain (Hawaiian Islands)
2. Cinder Cone Volcanoes- a steep, cone shaped hill or mountain formed from thick and stiff lava (Paracutin in Mexico)
3. Composite Volcanoes- tall cone shaped mountains formed from lava flow alternating with explosive eruptions ( Mt. Fuji in Japan, Mount St. Helens in Washington State)
4. Lava Plateaus- Thin runny lava flows on top of earlier flows( Columbia Plateau in Washington, Oregon and Idaho)
5. Caldera- hole left by a collapse of a volcanic mountain because an enormous eruption has emptied the vent

#### B. Soils from Lava and Ash

1. The hard surface of lava flow breaks down in time to form soil
2. Some of the richest soils in the world (fertile)
3. People settle near volcanoes to use the fertile soil

### C. Landforms from Magma

1. Magma that does not reach the surface but in time the surface erodes and leaves the landforms exposed
2. Volcanic Neck- when magma hardens in a volcano's pipe
3. Dike- magma that forces itself across rock layers hardens
4. Sill- when magma squeezes between layers of rock
5. Batholith- a mass of rock formed when a large body of magma cools inside the crust
6. Dome Mountains- when rising magma is blocked by horizontal layers of rock and forces the layers to bend upward into a dome shape

### IV. Volcanoes in the Solar System

#### A. Earth's Moon

1. Light colored craters- meteorites hit
2. Darker areas look smooth where lava flowed three billion years ago

#### B. Volcanoes on Venus

1. Widespread volcanic activity for billions of years
2. Has thousands of volcanoes
3. Made of thin runny lava

#### C. Volcanoes on Mars

1. Found on a few regions
2. Shield volcanoes similar to those on Earth
3. Largest- Olympus Mons- size of Ohio- Shield volcano

#### D. Volcanoes on Distant Moons

1. Io- moon of Jupiter
2. Triton- moon of Neptune
3. Volcanic features very different than those on Earth, Mars and Venus