**Volcanism** name:

Unit 2: Tectonic Processes period:

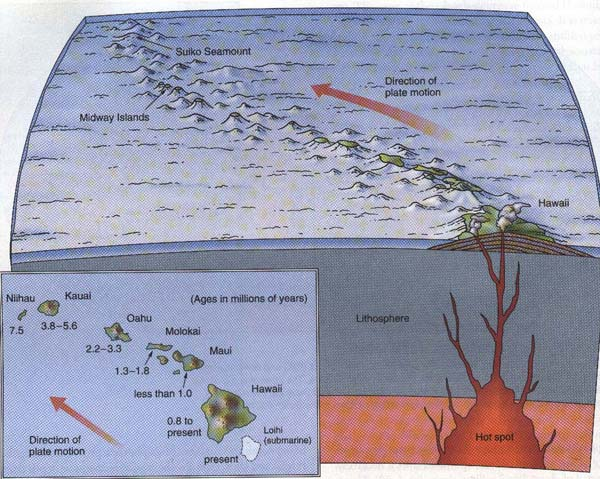
Geography 12

**Intrusive vs. Extrusive Structures**

* **Extrusive Forms:** when magma flows out onto the surface it is said to extrude 🡪 structures are called **extrusive forms**.
* **Intrusive Forms:** magma that penetrates the lithosphere and does not reach the surface. It solidifies in cracks 🡪 intrudes upon overlying rocks 🡪 structures are intrusive forms.

**Volcanic Activity and Hotspots**

* Volcanic activity occurs along plate boundaries and at locations called ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.***
* Hotspots are heated plumes in the **asthenosphere**.
* Pressure from the lithosphere keeps this area from melting 🡪 until a crack occurs 🡪 **magma takes a liquid state** as it flows to the surface.

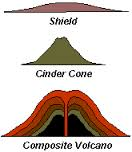


* Hawaiian Islands were created by hotspot activity.

**Extrusive Forms**

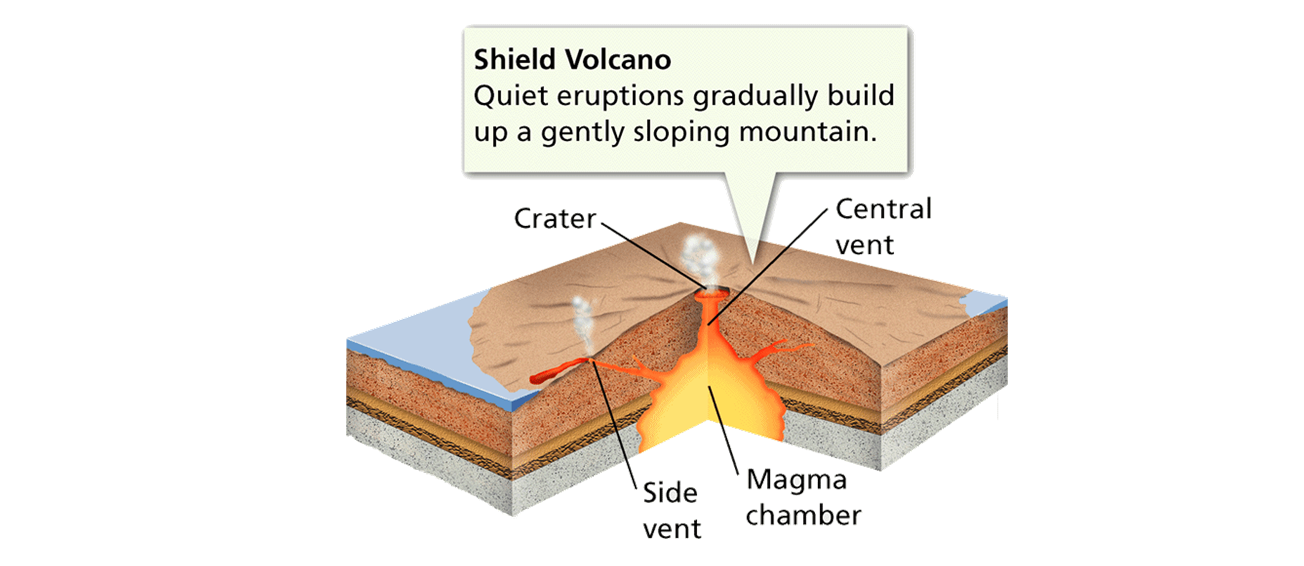
* When a small opening is made in the crust 🡪 molten lava and rock fragments gradually build up a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** that surround the opening.
* These structures are called **volcanoes**.

**Types of Volcanoes**



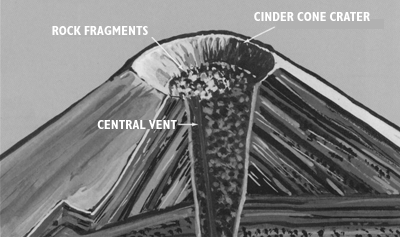
1. Shield Volcanoes
2. Cinder Cone Volcanoes
3. Composite Volcanoes

**1. Shield Volcanoes**



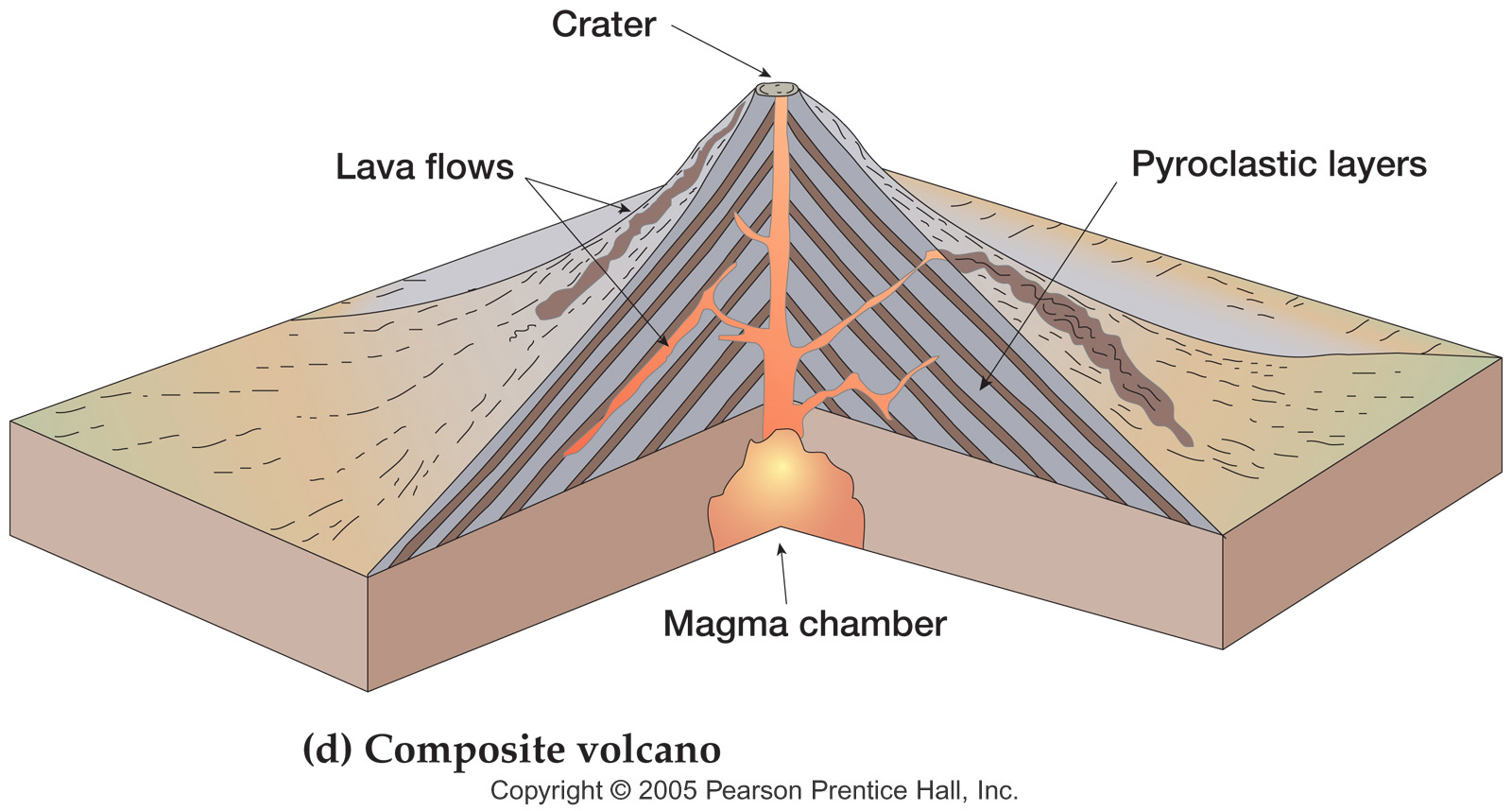
* Found mostly on ocean floor
* Cools slowly and spreads over a large area 🡪 **gentle slopes**
* **Fluid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lava** 🡪 tends to flow like wet concrete

**2. Cinder Cone Volcanoes**



* Found mostly on continents
* Steep slopes
* Made up of alternate layers of cinder and ash.
* Violent eruptions because the cinder cones trap gasses and water.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lava 🡪 less fluid

**3.** **Composite Cone or Strato Volcanoes**



* Most form over subduction zones
* Symmetrical shape, moderate slope
* Made of alternate layers of ash ***(pyroclastics)*** and lava
* Violent and explosive eruptions

