

Notes: Volcanoes

Name _____ Block: _____

I. A **Volcano** is an opening in Earth's crust through which **molten rock (lava), gases, and ash erupt**.

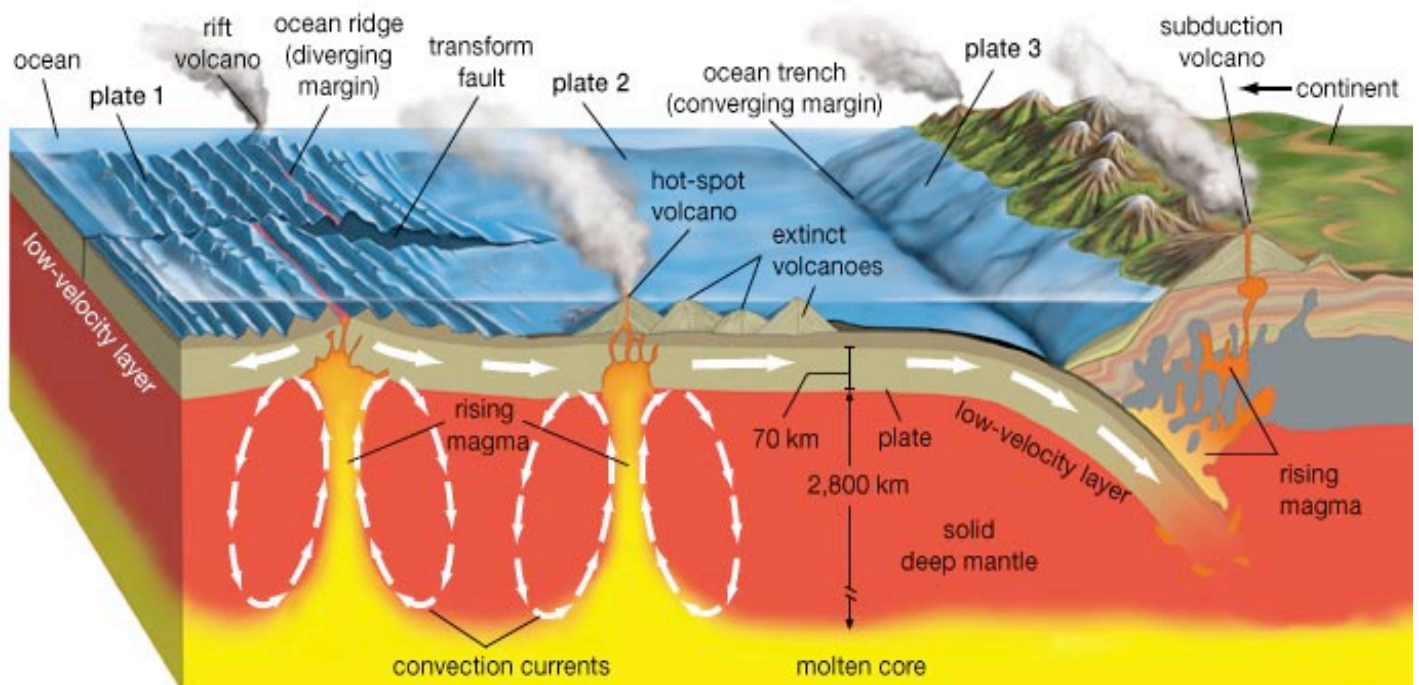
II. **Why** Volcanoes form:

Volcanic Eruptions occur when **magma rises to the surface**. This will happen when the asthenosphere melts enough to flow. There are three things that can cause this:

- 1- _____ **Like at a Mid-Ocean Ridge or Rift Valley**
- 2- _____ **Like at a Hot Spot**
- 3- An increase in the amount _____ **Like at a Subduction Zone**

III. **Where** Volcanoes Form

1. _____ Boundaries
2. _____ Boundaries that have _____
3. _____



1. Volcanoes at Divergent Boundaries

_____ in pressure as **plates** _____ lets **magma rise and make new crust**
These _____ volcanoes are located at _____ Ridge & Great African **Rift Valley**

2. Volcanoes at Convergent Boundaries (Subduction)

_____ increases the amount of **water** in the **asthenosphere**, which _____ the melting temp.
As the _____ crust is pushed lower, it melts into _____.

•When **continental and oceanic plates converge**, a volcano forms on **land**.

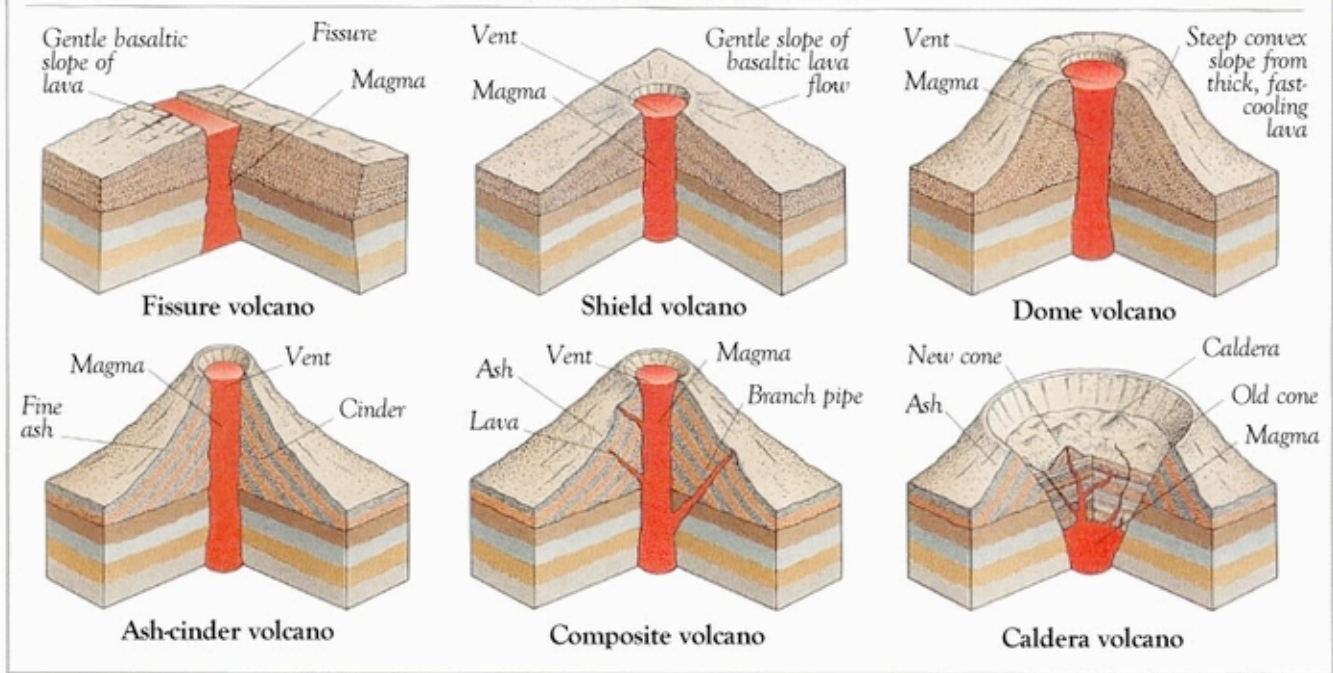
•When **2 oceanic plates converge** together, a volcano forms an _____.

3. Volcanoes at Hot Spots

Sometimes, volcanoes occur at **places that aren't plate boundaries**. We call these **HOT SPOTS**.

Hot spots are areas where _____
Magma escapes where the crust is the _____.

TYPES OF VOLCANO



Shield Volcanoes: Shield Volcanoes form from **runny lava (low viscosity)** that tends to flow long distances before hardening. They generally have **“quiet” eruptions**.

Volcano has _____
 Volcano has a _____ than other types because the lava flows more easily.
 Type of magma: _____
 Made of _____ Example: _____

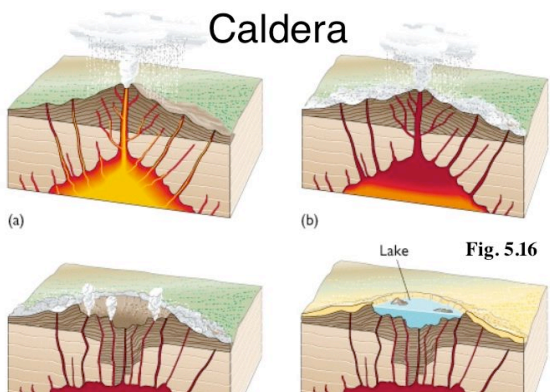
Cinder Cones: Form when **molten lava is thrown into the air from a vent**. As it falls, it breaks into fragments called ash or tephra that harden before hitting the ground.

The Ash and Tephra make a _____.
 They are _____ than other types
 Erupt _____ because _____ which allows pressure to build up
 Magma composition: _____ Example: _____

Composite or Stratovolcano: Form from **alternating eruptions of quiet lava and explosive ash**. The layers build up and make a moderate-sized volcano.

_____ kind of Volcano
 Made of _____
 Magma Composition: _____ Example: _____

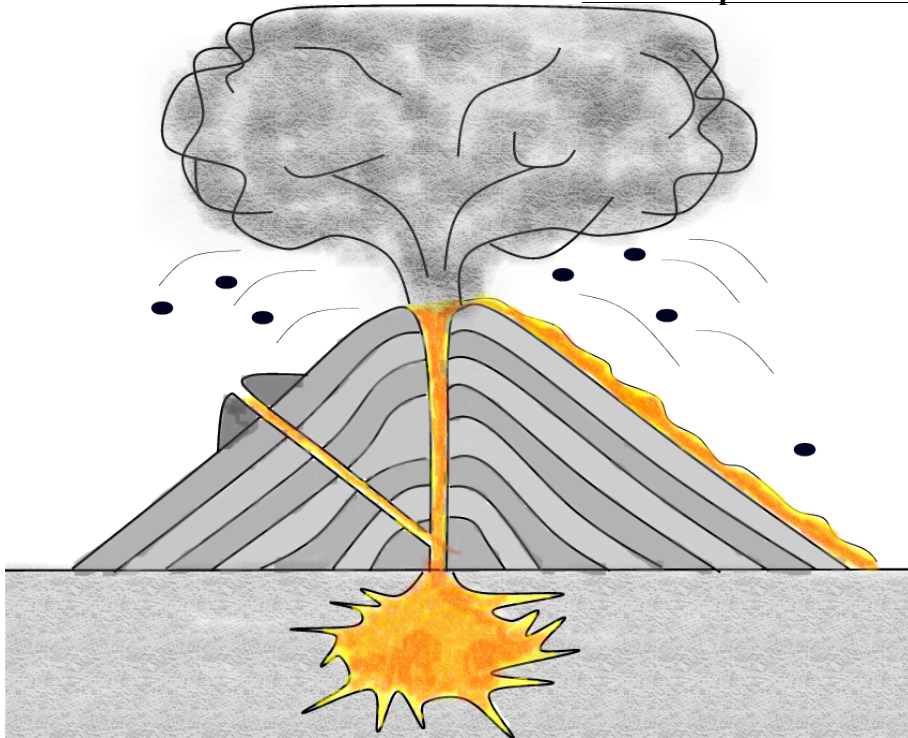
Fissure Volcanoes: Form in _____ where plates are pulled apart and near other volcanoes where the crust is weakened. Cinder Cone or shield Volcanoes may also be nearby.



Caldera Formation:

- A Volcano's _____ starts to build up
- The Volcano releases large amounts of Lava
- As the **Lava is released**, the pressure decreases and the volcanic **mountain begins to _____**, forming a **concave shape in the center of the volcano**.
- The center of the volcanic mountain may begin to **fill with water and form a lake**. (**Crater Lake in Oregon should**

Label the parts of the volcano below :



Word Bank:

Main Vent/Crater
Secondary Vent
Magma Chamber
Lava
Ash & Dust Cloud
Tephra Bombs
Cone