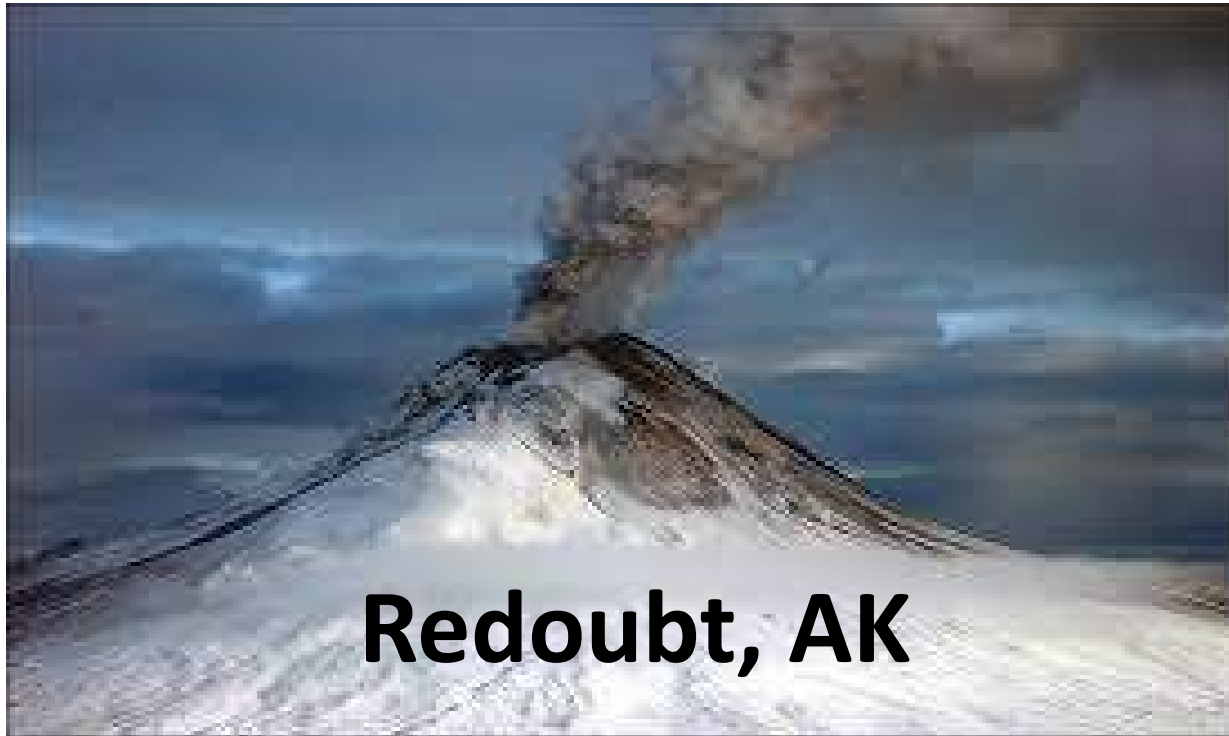


## 18.2 Notes: Volcano Anatomy

**Main Idea 1**: Volcanoes look like mountains, but they form as a result of repeated eruptions of magma from underground.



**Redoubt, AK**

<http://www.youtube.com/watch?v=g1UWTwDwZp8>

# Active Volcano

Has erupted  
during past 100  
yrs.



# Dormant Volcano

Has not erupted recently, but might

Mount Edgcumbe,  
near Sitka AK





## **Extinct Volcano**

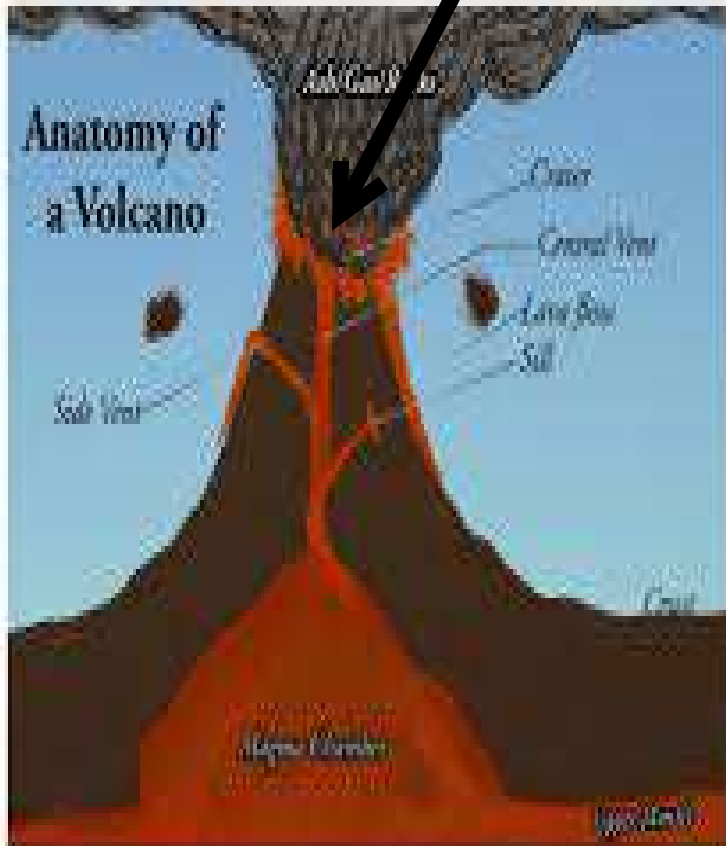
**Has not erupted in 1,000 yrs.**

**Scientist think it might not erupt  
ever again.**

# Crater

## Formation:

Bowl-shaped opening produced by vent explosions & lava flow



# Side Vents

**Describe:**

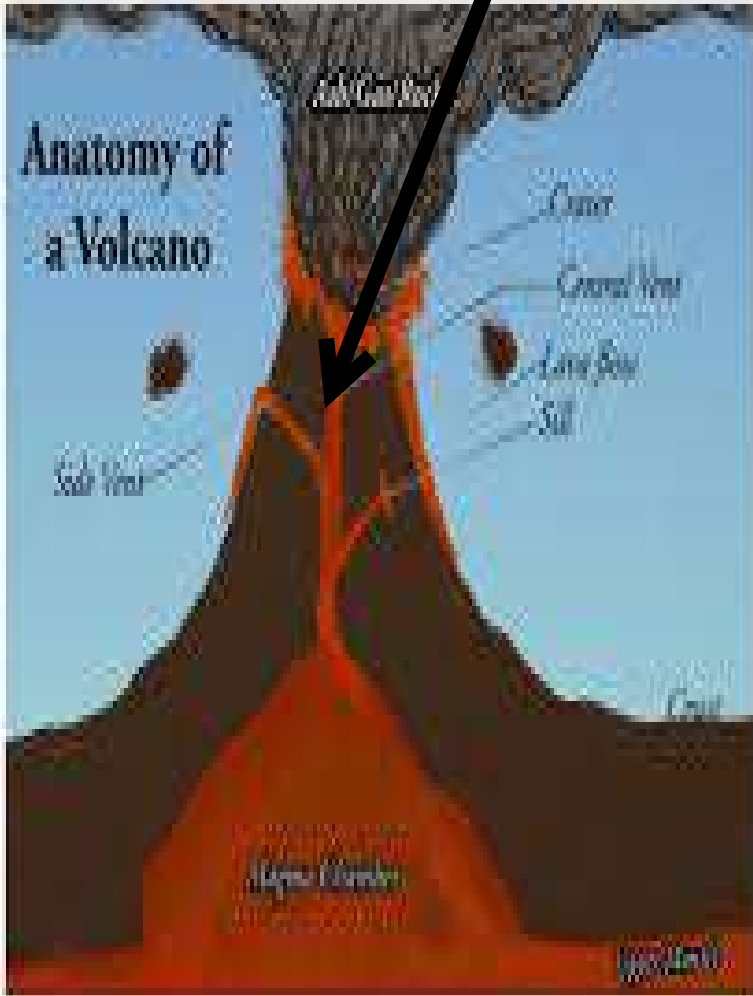
**Cracks in the crust, where magma can squeeze through.**



# Central Vents

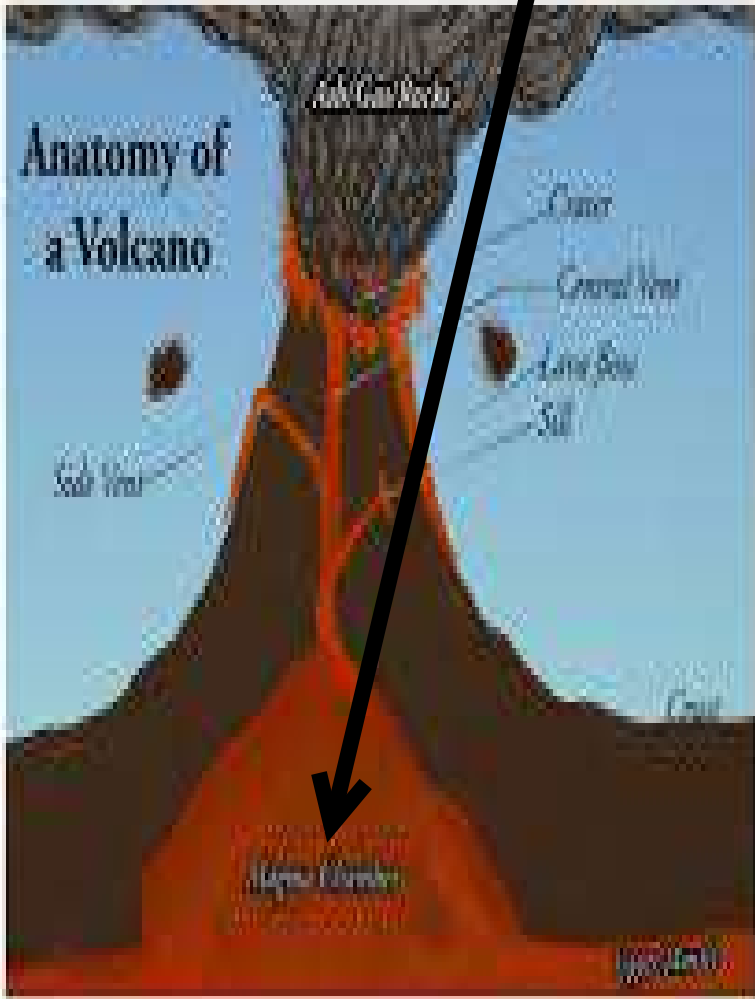
**Describe:**

**Main pipeline from magma chamber to the outside of the volcano.**



# Magma Chamber Conditions:

Under extreme  
pressure, very hot,  
& is rising towards  
Earth's surface.





**Main Idea 2: Three major things come out  
an erupting volcano:**

- 1. gas**
- 2. lava**
- 3. tephra**



# Gas

## Explain:

The high pressure of magma can keep gases dissolved. As magma leaves volcano, pressure decreases, gas is released.



# Tephra

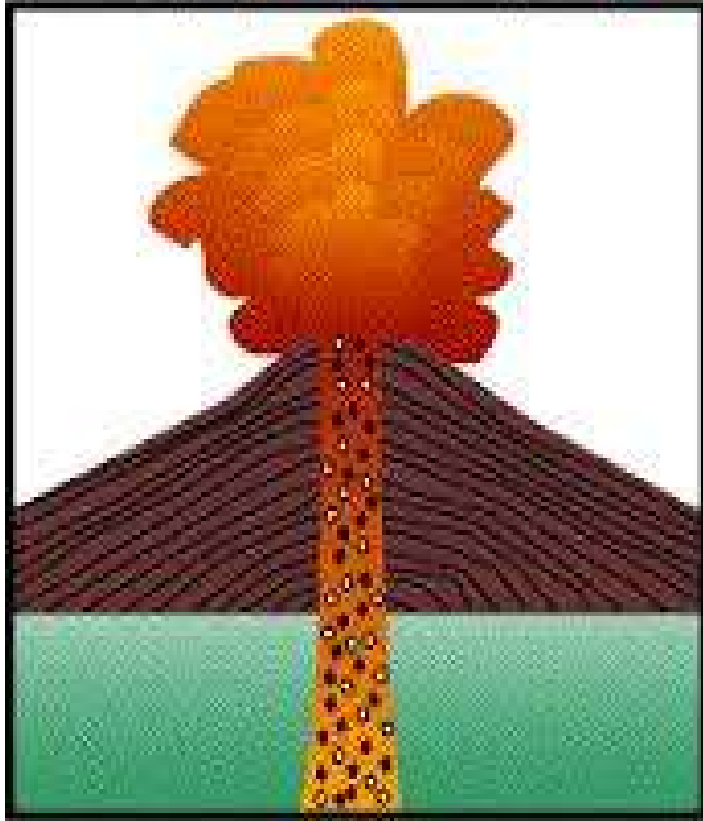
## Describe:

Solid particles, such as ash & pumice, are spewed out the volcano's top.



# Lava

Bubbles of water vapor  Silica crystals 



High water/High silica

**Define:** Magma that is released above the ground.

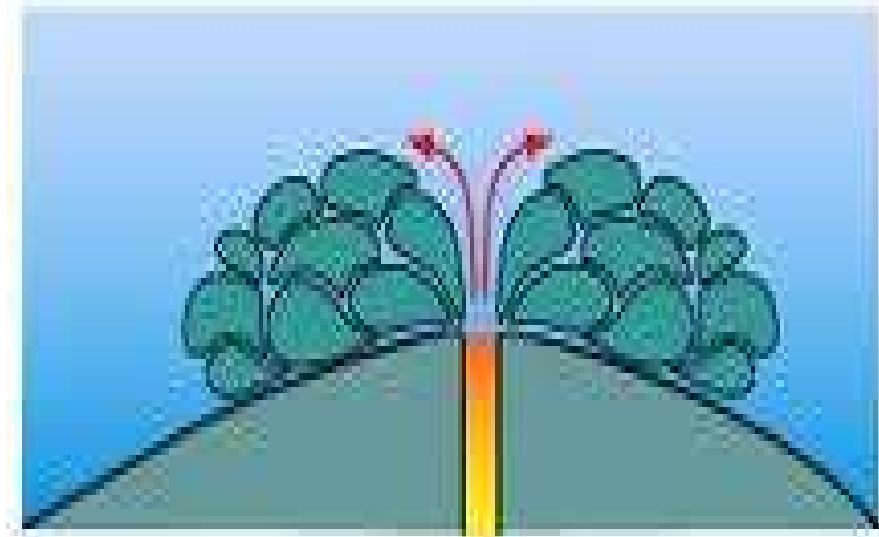
**Influence of Silica Content:** Silica determines the viscosity; more Si increases viscosity & slows lava flow.

# Lava Formations:



## Pillow Lava

**Describe: Magma that is released underwater & cools quickly.**



eruption of magma to form pillow lavas either side of central rift

# Lava Tubes



**Describe:** Tunnels that extend from volcanic vents through the long stretch of lava flow.

# Pyroclastic Flow



**Describe:** A destructive mixture of gas & ash that can reach temps. Of 700degrees C & travels down the side of a volcano at 125mph!!!!