

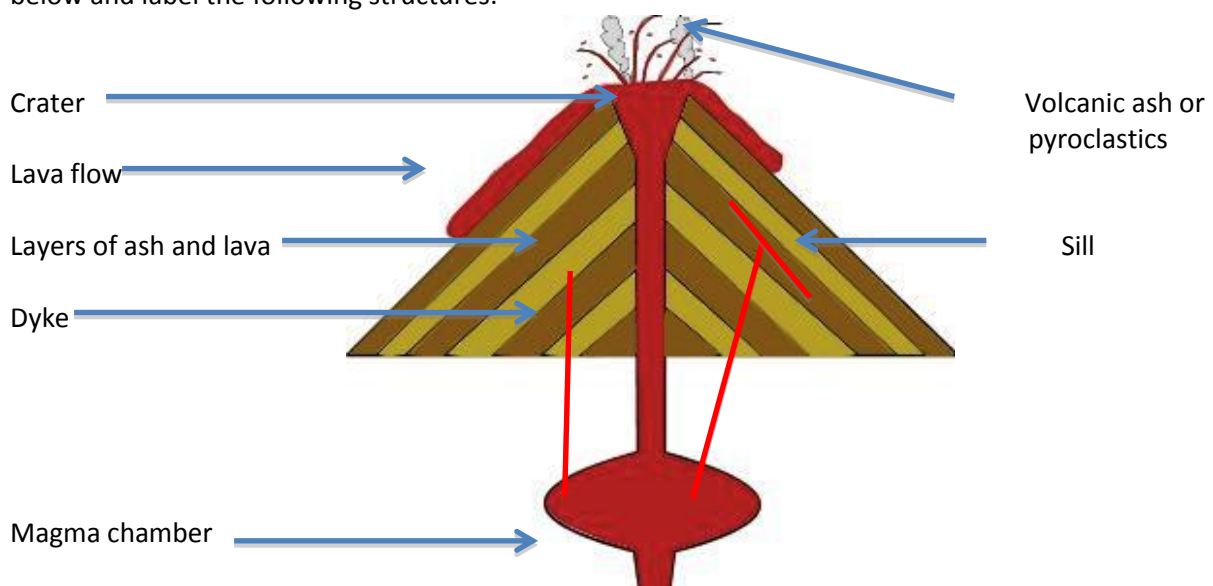
## Draw a Volcano – Teacher Notes

This activity helps students to learn the names for parts of a volcano. The diagram is for a stratovolcano. It is called “strato” or “composite” because the volcano is built from layers (strata) of ash and lava flows. Later activities will discriminate between strato and shield volcanoes. The terminology for describing strata and shield volcanoes is the same.

The source of magma (molten rock) is near the crust/mantle interface and is called the asthenosphere. Here pressure and temperature at some spots appears to permit solid rock to melt. The mantle itself is not usually molten.

### Your Task

Using your textbook, Internet or directions from your teacher, draw a cross section of a volcano below and label the following structures:



Match the word above to the definition:

Magma reservoir	A chamber of molten rock which underlies volcanoes
Crater	A vent at the summit of the volcano
Dyke	Igneous intrusions that cut across strata
Sill	Igneous intrusions that are parallel strata
Lava flow	A fluid flow from the vent of a volcano
Volcanic ash	Small pieces of violently ejected chilled lava also called cinders

Heat causes **magma** (molten rock) in the *magma chamber* to expand and rise. It forces its way up through any cracks or weaknesses in the country (existing) rock. The main conduit for magma is the **main vent**. Where a minor vent injects magma into a crack that crosses layers the rock formed is called a **dyke**. Dyke is the Northern European term for a rock wall. Since the igneous rock is usually hardest it weathers out to form a wall like shape. Similarly, if the magma pushes its way between two layers it is called a **sill** (as in window sill). Magma pours out of the crater of the volcano to become either an ash cloud or a lava flow. The ash travels at high speeds with temperatures exceeding 400°C.

**The only active volcano in Australian territory is Big Ben on Heard Island. It last erupted in 2001**

**Challenge** Guess which vocabulary words that you have to learn and write them below. **Crater, Dyke, Lava Flow, Magma reservoir, Sill & Volcanic Ash.**