## **VOLCANO TYPES CARD SORT LAB**

**Directions**: Read the information below. Use this information to sort the cards into the proper locations on the chart.

<u>Shield</u> volcanoes are huge in size. Their diameters range from 2.5 miles to 434 miles! They are built by many layers of runny lava flows. Lava spills out of a central vent or group of vents. A broad shaped, gently sloping cone is formed. This is caused by the very fluid, basaltic lava which can't be piled up into steep mounds. The lava from shield volcanoes has a low viscosity, meaning it is not very thick. The thin lava spreads easily and can flow large distances, thus large diameter volcanoes form. Shield volcanoes may be produced by hot spots which lie far away from the edges of tectonic plates. Shields also occur along the mid-oceanic ridge, where sea-floor spreading is in progress and along subduction related volcanic arcs. The eruptions of shield volcanoes are not explosive. Famous shield volcanoes can be found in Hawaii.

<u>Composite</u> volcanoes, (also called <u>stratovolcanoes</u>), are formed by alternating layers of lava and rock fragments. This is the reason they are called *strato* (strato means "layer"). They are the mid-sized volcano. The average diameter of a stratovolcano is 10-20 miles. Composite volcanoes usually erupt in an explosive way. This is caused by magma with a high viscosity. When very viscous magma rises to the surface, it usually clogs the craterpipe, and gas in the craterpipe gets locked up. Therefore, the pressure will increase resulting in an explosive eruption. Composite volcanoes have slopes that get steeper near the top of the volcano. This happens because heavy rock fragments don't blast very far away from the vent, and thus accumulate there.

A <u>Cinder Cone</u> volcano is fairly steep and is shaped like a cone. The edges are straight, unlike the stratovolcano that curves up with elevation. Cinder cones are among the most common volcanic landforms found in the world. They aren't famous because their eruptions usually don't cause any loss of life. Cinder cones are the smallest volcanoes, averaging only a ½ mile in diameter. The cones usually grow up in groups and they often occur on the outer edges of stratovolcanoes and shield volcanoes. Cinder cones are built from lava fragments called cinders. The lava fragments are ejected from a single vent and accumulate around the vent when they fall back to earth. Cinder cones grow rapidly and soon approach their maximum size. They rarely exceed 250 meters in height.



Volcano	Description of How	Type of	Sketch of Volcano
Туре	Volcano Forms	Eruption and	
		Type of	
		Lava/Pyroclastic	
		Material	
Shield			
Cinder			
Cone			
Composite			
Composite			