

# Mountain and Volcano Earth Science Cheat Sheet

Version 3.0

**Bolded** terms appear frequently in questions.

## Mountains

Term	Details
glacier	<b>Piedmont</b> glaciers are ones that collect at the base of a mountain; a nunatak is a glacier that surrounds a mountain peak or ridge; glaciers can form <b>tarns</b> , mountain lakes that collect in <b>cirques</b> left behind by the motion of glaciers
orogeny	the process by which mountains are created, often through <b>subduction</b> where tectonic plates meet; an orogen, or orogenic <b>belt</b> , is a line of mountains and rocky terrain that arise through orogeny
rain shadow	an effect in which clouds are blocked by a mountain range, creating a <b>desert</b> on the leeward side of the mountains
tree line	the altitude above which trees do not grow on a mountain
wind	<b>katabatic</b> winds descend the slope of a mountain, creating the <b>rain shadow effect</b> by causing warm, dry <b>foehn</b> winds on a mountain's leeward side; anabatic winds ascend mountain slopes through air warming

## Volcanoes

Term	Details
caldera	volcanic craters usually formed by the collapse of the center of volcanoes during eruptions; the massive <b>Yellowstone caldera</b> formed during the last eruption of the Yellowstone supervolcano
eruption	the expulsion of <b>lava</b> , <b>tephra</b> , and gases from a volcano; <b>plinian</b> eruptions are named for Pliny the Elder, who died during the eruption of Mount Vesuvius; <b>strombolian</b> eruptions are bright, relatively mild eruptions; phreatic eruptions heat groundwater and produce large amounts of steam, leaving behind craters called <b>maars</b>
lava	<b>magma</b> , or molten rock, that is expelled from a volcano during an eruption; types include <b>pahoehoe</b> , which flows smoothly and creates smooth, curvy rock behind, and <b>a'a</b> , which flows turbulently and leaves sharp, rough rock behind; <b>pillow</b> lava forms underwater in round blobs
pyroclastic flow	gas and <b>tephra</b> that flows away from a volcano during an eruption
tephra	fragmentary material ejected from a volcano during eruptions; a <b>bomb</b> is a chunk of lava that cools into a rock as it falls; <b>lapilli</b> are small droplets of lava that cool into pebbles as they fall
types of volcanoes	<b>cinder cone</b> volcanoes are conical volcanic peaks; <b>shield</b> volcanoes are low, mound-like volcanoes