

Google Earth® Volcano Tour

Geology

Mr. Traeger

Name: _____ Period: _____ Date: _____

Background and Directions

In this exercise, you will take a virtual tour around the world in Google Earth® to look at different types of volcanoes. Launch Google Earth® with plate boundaries overlain by going to this link.

<http://earthquake.usgs.gov/regional/nca/virtualtour/global.php>. Click on %Tectonic Plate Boundaries.+

Google Earth® should load. Under %Layers,+click the plus sign next to %Gallery.+Scroll down and click the checkbox titled %Volcanoes.+The volcanoes of the world should now appear if you zoom in far enough. If this does work, go to <http://www.volcano.si.edu/index.cfm> and click on %Google Earth Placemarks+and then click on %Download Holocene Volcanoes.+Take a geographic journey around the world and report on the following types of volcanoes.

Part 1: Find Shield Volcanoes

Find 2 shield volcanoes and fill in the following chart. Use *Google Earth®* for this.

	Volcano #1	Volcano #2
Volcano Name	Mauna Loa	Volcano of Your Choosing:
Location (City, State, Country)	Hawaii, USA	
Latitude & Longitude	Lat.: Lon:	Lat.: Lon:
Summit Elevation in meters?		
Appearance (steep sides, gentle sides?) Sketch it.		
Active, dormant, or extinct?		
Has it ever caused property damage and/or loss of life? If so, how bad?		
Is this volcano located at a hot spot, divergent zone, or convergent subduction zone?		
What type of eruption was caused? Gentle or explosive? Fluid lava flows or pyroclastic flows?		
Rock Type? Basaltic, Andesitic, Rhyolitic?		

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Part 2: Find Cinder Cone/Lava Dome Volcanoes

Find 2 cinder cone volcanoes and fill in the following chart. Use *Google Earth®* for this.

	Volcano #1	Volcano #2
Volcano Name	Sunset Crater	Volcano of Your Choosing:
Location (City, State, Country)	Flagstaff, Arizona, USA	
Latitude & Longitude	Lat.: Lon:	Lat.: Lon:
Summit Elevation in meters?		
Appearance (steep sides, gentle sides?) Sketch it.		
Active, dormant, or extinct?		
Has it ever caused property damage and/or loss of life? If so, how bad?		
Is this volcano located at a hot spot, divergent zone, or convergent subduction zone?		
What type of eruption was caused? Gentle or explosive? Fluid lava flows or pyroclastic flows?		
Rock Type? Basaltic, Andesitic, Rhyolitic?		

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Part 3: Find Stratovolcanoes/Composite Volcanoes

Find 2 stratovolcanoes and fill in the following chart. Use *Google Earth®* for this.

	Volcano #1	Volcano #2
Volcano Name	Pinatubo	Volcano of Your Choosing:
Location (City, State, Country)	Luzon, Philippines	
Latitude & Longitude	Lat.: Lon:	Lat.: Lon:
Summit Elevation in meters?		
Appearance (steep sides, gentle sides?) Sketch it.		
Active, dormant, or extinct?		
Has it ever caused property damage and/or loss of life? If so, how bad?		
Is this volcano located at a hot spot, divergent zone, or convergent subduction zone?		
What type of eruption was caused? Gentle or explosive? Fluid lava flows or pyroclastic flows?		
Rock Type? Basaltic, Andesitic, Rhyolitic?		

Part 4: Find Calderas

Find 2 caldera super volcanoes and fill in the following chart. Use *Google Earth®* for this.

	Volcano #1	Volcano #2
Volcano Name	Yellowstone	Volcano of Your Choosing:
Location (City, State, Country)	Wyoming, USA	
Latitude & Longitude	Lat.: Lon:	Lat.: Lon:
Summit Elevation in meters?		
Appearance (steep sides, gentle sides?) Sketch it.		
Active, dormant, or extinct?		
Has it ever caused property damage and/or loss of life? If so, how bad?		
Is this volcano located at a hot spot, divergent zone, or convergent subduction zone?		
What type of eruption was caused? Gentle or explosive? Fluid lava flows or pyroclastic flows?		
Rock Type? Basaltic, Andesitic, Rhyolitic?		

Part 5: Summative Assessment

1. What do plate tectonics have to do with the type and/or explosiveness of the volcanoes that you found? Do you notice any patterns? If so, what are those patterns?