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 ñTectonic Plates of the World.ò Google Earth® should load. Under ñlayers,ò click the plus sign next to ñGallery.ò Scroll down and click the checkbox titled ñVolcanoes.ò The volcanoes of the world should now appear if you zoom in far enough. 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	Theistareykjarbunga
Location (City, State, Country)	Hawaii, USA	Northeastern Iceland
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	El Chichón	Sunset Crater
Location (City, State, Country)	Chiapas, Mexico	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	Nyiragongo
Location (City, State, Country)	Luzon, Philippines	Democratic Republic of Congo
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 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	Long Valley
Location (City, State, Country)	Wyoming, USA	California, 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?