Volcanoes A to Z – Bus Activity

Time Requirement: all day
Exhibit / Trail Used: all exhibits/trails visited
Locations: all locations visited, review on the bus en route back to your school.

This activity is to be completed throughout the day and between other activities. Students will make note of key words while reading exhibits, interpretive signs, or labels, or by hearing them from each other, their teacher, movies or rangers. Consider distributing on the bus and collecting on the bus.

Goal:

1) The student will become familiar with terminology related to the study of volcanoes, geology, or the ecosystems that surround them.

Objectives:

1) The student will listen attentively.
2) The student will recall and list vocabulary words for things and concepts encountered on a field trip to Mount St. Helens National Volcanic Monument.
3) The student will distinguish nouns from other parts of speech.

WASHINGTON EALRS and OREGON BENCHMARK STANDARDS

Washington

Social Studies

2.0- The student understands the complex physical and human characteristics of places and regions.

Geography

2.1- Describe the natural characteristics of places and regions.

Science

4.2 Use writing and speaking skills to organize and express science ideas.

a. Use science vocabulary appropriately in written explanations, conversations and verbal presentations.

Oregon

Science-CCG

The Dynamic Earth- Understand the properties and limited availability of the materials which make up the Earth.

BM1- Recognize physical differences in Earth materials.

Language-CCG

Select functional, precise, and descriptive words appropriate to audience and purpose.

Volcanoes A to Z – Bus Activity

Directions:

Name an object (noun) relating to the geology/ecology around volcanoes for each letter of the alphabet. No other parts of speech. Items listed must be objects viewed outside the bus today.

	Word	Definition
A		
B		
C		
D		
E		
F		
G		
H		
I		
J		
K		
L		
M		
N		
O		
P		
Q		
R		
S		
T		
U		
V		
W		
X		
Y		
Z		

Instructional Sequence for “Volcanoes A to Z”

1. After boarding the bus direct students to take out their ‘Volcanoes A to Z’ worksheets. They will have the opportunity to begin their list once your bus has turned on to route 504 from Castle Rock or on to forest road 90 in Cougar.

2. Choose ‘geology’ only, ‘ecology’ only or both ‘geology/ecology’ and direct students to circle your choice or not circle either one to include both. Inform students that next to each letter they are to write a noun that begins with that letter and its definition. The word should relate to something they’ve seen, heard, or read about in the course of their trip to Mount St. Helens National Volcanic Monument. The word should be related to the geology and/or ecology of the area around Mount St. Helens.

3. Students should be able to complete this list during the course of the day’s activities. Challenge students to listen carefully to other students, instructors and rangers and to be on the lookout for useful nouns on interpretive signs and exhibits.

4. Upon returning from Mount St. Helens National Volcanic Monument allow students time to complete their worksheets.

Teacher’s cheat sheet (Geologic/volcanic examples)

A- andesite, avalanche, ash, a’a’
B- basalt, bulge, breadcrust bomb, blast, Bandi, Blown down forest
C- crater, caldera, composite volcano, cinder cone, Castle Lake, Coldwater Lake
D- dacite, debris avalanche, dome, dormant volcano
E- ejecta, eruption, explosion, extinct volcano, electronic distance meter (EDM)
F- fault, fumarole,
G- gabbro, granite, gas, glacier, geologist
H- harmonic tremor, hydrothermal alteration, hummock
I- ice, igneous
J- Jurassic, Johnston Ridge
K- Kalama, Kilauea
L- lava, lahar, lava tube, landslide
M- magma, mantle, mudflow,
N- nuee ardente
O- obsidian, oceanic crust
P- pyroclastic flow, phreatic explosion, plate tectonics, plug, pluton, pumice, pahoehoe
Q- quake, quartz
R- rhyolite, restricted zone, richter scale, ring of fire
S- seismograph, shield volcano, silica, stratovolcano, subduction zone, Spirit Lake
T- tephra, tsunami, tuff, Harry Truman, Tilt meter
U- understory
V- vent, viscosity, volcano, vulcanology, vapor
W- water,
X- xenolith (rock within a rock)
Y- Yn Eruption, Yn tephra (Yn=yellow tephra that traveled north), Yellowstone
Z- Zone (blue, red, sub-duction, blast, singe, direct)

(Ecologic examples)

A- alder, amphibians, aphids, ants, adult
B- bees, blown-down forest, biology, beaver, bufo, brook trout, bluebird, brown creeper
C- colonizer, competition, cedar, crow, coyote, coho salmon, cascade frog, cut-throat trout
D- deciduous tree, dead fall, detritus, Douglas-fir, damsel fly, dragon fly
E- egg, eggmass, eagle, ecosystem, ecology, elk
F- fir, Fireweed, frog, fern, flicker
G- grasshopper, grylloblattid, golden mantled ground squirrel, grouse
H- habitat, huckleberry, hummocks
I- insects
J- junco, jumping mouse
K- Kinnick-kinnick, Killdeer
L- landscape, life styles, Lupine, lady-bird beetle, larvae
M- mammal, mallard duck, millipede
N- Northern Pocket Gopher, neotene, newt, northwest salamander
O- Oregon Grape, overstory
P- pearly everlasting, pacific silver fir, pacific tree frog, pupa
Q- Quail
R- Recovery, ranger, resident, rough-skin newt, raven, rainbow trout, red alder
S- Sitka Alder, spruce, salamander, salal, squirrel, shrew, steelhead trout, silver fir
T- Toad, trout, tiger beetle
U- Understory
V- Vole
W- Western toad, western hemlock, wolf spider, weasel
X- X (we can’t think of one, can you? Stump the ranger!)
Y- Yellow Warbler
Z- Zone (alpine, riparian, grass, etc.)