

Jessica Rock

Grade: 6th

Subject: Earth Science

Lesson Length: 40 minutes (1 period/class)

PA Standards:

Science and Technology –

3.5.7 A Describe earth features and processes.

3.2.7 B Apply process knowledge to make and interpret observations.

3.7.7 D Apply computer software to solve specific problems.

Goal: The students will understand volcanoes and the impact they have on the surrounding community.

Objectives:

1. The students will be able to use the program Pictometry On-Line and the measurement tools with 90% accuracy.
2. The students will identify physical landmarks with 90% accuracy.
3. The students will be able to complete a worksheet on Mount Saint Helen's with 95% accuracy.

Procedures:

1. Review the characteristics of composite volcanoes as a whole group: tall, cone-shaped mountains, alternate with layers of lava and ash, lava flows can alternate with explosive eruptions of ash.
2. Explain that two examples of composite volcanoes are Mount Saint Helens, which is found in the United States and Mount Fuji, located in Japan.
3. Today we are going to explore Mount Saint Helens and the area surrounding it.
4. Pass out the worksheet on Mount Saint Helen's and go over the directions.
5. Have the students open the program and type in the address bar, Mount Saint Helen's.
6. Students will work individually to explore and complete the assignment.
7. After the assignment is completed, go over the answers together as a whole group.
8. Discuss the implications that the eruption of Mount Saint Helen's has on the surrounding community and write a summary in their science notebooks.

Assessment:

1. Teacher will monitor students to make sure that they are using the program correctly.
2. Teacher will monitor progress of students.
3. Worksheet will be collected and completed.

Mount Saint Helen's

Directions: Use the program Pictometry Online to answer the following questions about the infamous volcano – Mt. Saint Helen's. All measurements are to be recorded in km or km² (except for question #3).

1. What state is Mt. Saint Helen's located in?
2. What is the capital of that state?
3. What is the closest interstate to the volcano and in which direction is it located?
4. How tall is the summit of the volcano?
5. What is the closest town to the summit and how far away is it?
6. What is the name of the Indian Reservation closest to the volcano?
7. What is the distance of the crater if you measure from north to south?
From east to west?
8. What are the closest lakes and how far away are they from the summit?
9. What is the area of both lakes?
10. What is the National Forest located directly east of the volcano?
11. What mountain range is directly west of Mt. Saint Helen's?
12. How far away is the volcano from the capital of Washington?

Mount Saint Helen's – Key

1. Washington
2. Seattle
3. Interstate 5 is west of Mt. Saint Helen's
4. 8365 ft
5. Cougar 19km
6. Yakama Indian Reservation
7. 3.8 km ; 2.2 km
8. Spirit Lake, 7 km; Coldwater Lake, 12 km
9. Spirit Lake – 7.3 km² and Coldwater – 2.9 km²
10. Gifford Pinchot National Forest
11. Toutle Mountain Range
12. 152 km