

Heading

Name: Donald Hilenbrant

Subject: Earth and Space Science

Grade: 7

State Standard: 3.5.7 - A

Goal:

The goal is for students to better understand how volcanoes are formed and distinguish between the different types of volcanoes.

Materials: Computers, Internet access, Google Earth, Notebooks and Pencils

Expected Duration: One class period, 45 minutes.

Objectives

Academic Standards:

_____ Local ___X___ Pennsylvania _____ National (SPA)

Assessment

The students will be going through a set of places on Google Earth and answering pre-determined questions. I will be observing their effort as I circle the room and will give

participation points for students staying on task. Also, the students will turn their answers in at the end of the class for assessment as well.

Objectives are:

☒ Cognitive ☒ Affective ☐ Psychomotor

Student Objectives: (related to assessment)

As a result of this lesson, the students will be able to discuss the causes of volcanic formation.

As a result of this lesson, the students will be able to identify the different types of volcanoes.

Lesson Development

Anticipatory Set

For the anticipatory set, I plan to have a PowerPoint slide show on as they enter the room. On this slideshow, I will show pictures of volcanic eruptions. This will get the students' attention and get them interested at the topic at hand. By showing spectacular photos of past eruptions, they will want to know more about the topic and will be prepared to receive the information and knowledge.

Teaching Procedures/Instructional Process:

1. First, after I show the PowerPoint presentation, I will explain the plan to the students. I

am going to take them down to the computer lab to work on Google Earth. I will tell them that they have a predetermined set of places that I would like them to visit and I want them to answer the questions that are on the program. I will explain that participation points will be given for students that are working and on task, along with points given for assessment of the answers that are turned in to me.

2. At this time, I will ask the students to bring a notebook and pencil with them as I take them down to the computer lab. I will ask for silence as we move through the halls for I do not want to disturb other classes being conducted.
3. When we enter the lab, I will ask the students to have a seat at a computer. If there are not enough computers for everyone, they will be allowed to pair up. However, I will explain that I would like a paper to be turned in with answers for each student. Even though they are in pairs, they will be responsible for their own work.
4. After they are seated, I will take them through step by step as to how to pull up Google Earth on the computer. Also, I will help them open the file about volcanoes that I have loaded onto the system. I will wait for all of the students to be where they need to be.
5. Then, I will explain how to navigate through the plan. I will tell the students to follow in order the set places. In the program, I begin with showing them convergent boundaries, divergent boundaries, and hot spots as these are the places where volcanic activity is found. After these, I sent them around Google Earth to different places on the globe looking at the different types of volcanoes along with comparing them to each other. During this, they will research how to distinguish between the different types of volcanoes. They are in this order to help them fully understand the concept. At this time, I will let the students work. I am going to try to have the students work mostly on their

own, but of course I will always be there for them to ask questions if need be. My main point to emphasize to them will be that the internet may ONLY be used to research volcanoes. Anything else will result in a deduction of participation points.

6. I will be walking around the room to monitor progress. I will be carrying a book that I can log participation into. I will take note on students possibly helping other students along with simply staying on task. The students that stay on task and work will get full points while deductions will be made for students that misbehave or wander off task.
7. Lastly, when the class period is nearing the end and the students have finished up their work, I will collect the students' papers for assessment. I will not necessarily grade strictly on correct answers, but also take into consideration the length and effort given by the student. I will then ask the students to get up quietly and move down the hall and back to the classroom just as they left. Quietly.
8. Finally, I will end with my closure.

Guided Practice/ Monitoring

Throughout the class, I will be walking around the computer lab checking on the students' progress. Any questions that they might have I will answer. However, this lesson is designed to bring out the knowledge for them to learn. I would like them to research and understand the material more with a little of my help rather than all from me. I will be the facilitator of learning and answer any questions that they have without giving the answer away flat out. I will rather guide them toward discovering the right answer for themselves.

Closure

In conclusion, I will ask the students what they learned today by the lesson. Which parts did they

find interesting? Also, I will do a little review in asking them how most volcanoes form and where they are located. Why don't many volcanoes form at divergent boundaries? I will then explain to the students a little bit of what will happen during the next class period to get them prepared as they leave class.

Independent Practice / HW

N/A

Differentiated Instruction

For a student that may have a learning disability, I would make a special intention to make sure they are on track. They can ask me questions at any time, and I will try to make myself available for questions throughout the day. When writing the questions at the end of the lesson, I will walk by and make sure they are doing fine and talk to them about it. It will be my every intention to keep all of the students on the same pace and at an equal academic level.

Content Notes and Questions for Students

What did you find most interesting?

Where are most volcanoes formed?

Why don't many form at divergent boundaries?

How are (insert volcano type here) formed?

Where does the magma eject on this certain volcano?

Is this volcano steep or shallow?

Professional Development

Reflections after Teaching the Lesson:
