Earth Systems-Jain Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_Period:\_\_\_\_

**Directions:** *Your task is to create a news report regarding the volcano of your choice. You may work in groups of 2-4 people. The first part of your task is to gather the facts. As you read the paragraphs below, write down the answers to the following chart. Then, turn to the back side for more information on how to create your report.*

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Shield volcano** | **cinder volcano** | **composite volcano** |
| Definition |  |  |  |
| Shape (illustrate) |  |  |  |
| Examples in real life |  |  |  |

*As you read, underline or highlight important concepts:*

Not every volcano erupts in the same way. Some shoot runny lava high in the air. Others ooze lava like toothpaste out of a tube. Part of what erupts from some other volcanoes is lava chunks that have already hardened into rock. Each type of eruption forms a different type of mountain. Volcanoes fall into one of three categories: shield, cinder cone, and composite.

**Shield volcanoes** are large mountains with gentle slopes. They form from slow gentle eruptions of runny lava. Flow after flow pours out in all directions from the central summit vent, or group of vents. They have relatively broad, gentle sloping cone of flat, domical shape formed from layers of cooled lava. Some of the largest volcanoes in the world are shield volcanoes. In northern California and Oregon, many shield volcanoes have diameters of 3 to 4 miles and heights of 1,500 to 2,000 feet. Many of the Hawaiian islands were formed from shield volcanoes. Two of the world’s most active volcanoes – Mauna Loa and Kilauea – exist in Hawaii. Mauna Loa rises 13,677 feet above sea level and 30,000 feet from the ocean floor – higher than the tallest mountain on Earth.

**Cinder cone volcanoes** are small volcanoes made of hardened lava chunks called cinders. Cinder cones have steep sides formed from sudden violent eruptions. They have steep cone-shaped mounds formed from ash, cinders, and dust. Most cinder cones have a bowl-shaped crater at the summit and are usually less than 1,000 feet tall. In 1943, a farmer in Paricutin, Mexico noticed steam coming up from the ground. Then he noticed several small rocks being thrown into the air, and before long there was a pile of rocks, and then a hill of rocks. Within in one week the explosive eruptions, caused by gas rapidly expanding and escaping from molten lava, formed a hill made of cinders 350 feet high. By the end of the first year it was 1,400 feet high. It remained active for nine years when the last explosive eruption left a funnel-shaped crater at the top of the cone. After the excess gases had largely dissipated, the molten rock quietly poured out on the surrounding surface of the cone and moved downslope as lava flowed. This order of events--eruption, formation of cone and crater, lava flow--is a common sequence in the formation of cinder cones.

 **Composite volcanoes** make up some of Earth’s grandest mountains. These volcanoes are a mixture of shield and cinder cone volcanoes. They have both violent and gentle eruptions and are made up of alternating layers of lava and ash. They are typically steep-sided, symmetrical cones of large dimension, rising as much as 8,000 feet above their bases. Most composite volcanoes have a crater at the summit which contains a central vent or a clustered group of vents. Lava either flows through breaks in the crater wall or issues from fissures on the flanks of the cone.

Some of the most conspicuous and beautiful mountains in the world are composite volcanoes, including Mount Fuji in Japan, Mount Vesuvius in Italy, Mount Shasta in California, and Mount St. Helens and Mount Rainier in Washington.

You and your team members are making a report about a specific type of volcano. You will report about your type of volcano to the class. **You will use the information on the other sheet, information from your research (you may use your phone for this) or your textbook.** You are going to create a poster (visual) and a script that state the following:

1. A title with the name of your type of volcano-choose one( shield volcano, cinder cone volcano, composite volcano) and the names of your group members (5 pts)
2. A picture showing your type of volcano: shield volcano, cinder cone volcano, composite volcano (30 cm x 30 cm) and list of its features (general shape, how they are formed, and description of their eruptions, etc.) Neatly draw or print pictures with decorations(20 pts).
3. A diagram showcasing the parts of a volcano : (ash, crater, magma chamber, magma, lava, vent) (30 cm x 30 cm) (25 pts)
4. 2 famous examples of your type of volcano. Write whether it is currently active, dormant, or extinct. State where they are located and what plate action caused them to form. Also state the age of the volcano. (20pts)
5. Script of your newscast (live broadcast) that includes all the information from your poster – (30 points)

Example of your “visual” set up.

Use the space here for brainstorming (I need to see a sketch of your layout or outline of script before you get real poster paper)

Title

Features:

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Famous Examples and Facts:

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Diagram of Volcano

Type of volcano