

To complete this worksheet, see the instructions in the textbook (Chapter 6 Investigation).

**Table 1. Landscape Features and Processes**

**Volcanic Island Observations:** In the white space around the figure below, write five observations about the physical appearance of the landscape. There is no right answer, so write some of the things you notice.




**Rock Observations:** On Table 2, describe the types of rocks found on the island, identify them by name, and determine their hazard potential based on the rock type. Your instructor may provide you with hand samples.

**Safe Place to Live:** After completing the rest of the investigation, draw boundaries around and label those areas that have high, medium, or low hazard potential compared to the rest of the island. Write the word *HERE* in a place that you think is the safest place.



**Table 2. Observations and Identification of Rocks Types on Island**

Study the photographs below and identify key attributes to describe each rock type, such as whether the rock is composed of fragments. From these attributes, identify the rock type, and infer what kind of eruption probably formed the rock type.

Rock 1	Rock 2	Rock 3
		
Key attributes:	Key attributes:	Key attributes:
Rock type:	Rock type:	Rock type:
Style of eruption:	Style of eruption:	Style of eruption:

**Table 3. Assessing Volcanic Hazards of the Island**

Read the newspaper account of the eruptive history of this volcano. Propose at least four possible hazards expected from its eruptive history. Describe evidence for the hazard and describe how extensive each hazard might be and whether it can be minimized.

Volcanic Hazard	Evidence and Extent of Hazard

*The following is a newspaper account:*

***Volcano Erupts!***

The *Juanannita volcano* began erupting in early September of 1952, and dozens of small eruptions have occurred since that time. For 10 years before the 1952 eruption, plumes of white steam often were observed rising from the summit of the crater. In the summer of 1952, local inhabitants reported an increase in the output of steam and an increased smell of sulfur.

The first eruption was a single explosive burst that lasted about three hours and was accompanied by clouds of ash that rose thousands of meters into the air. Heavy ash fell around the volcano, and a light dusting of ash was reported on adjacent islands up to 20 kilometers away. The eruption melted snow and ice high on the crater forming a mudflow that moved along stream channels and inundated many areas in valleys downstream from the volcano. After the main eruption, a lava dome started growing in the crater.

All subsequent eruptions have been smaller and of a different style. They have been similar to one another. In each eruption, a cloud of ash and rocks that is mostly restricted to stream channels moves rapidly downhill. After each eruption, geologists noted that one side of the dome in the crater had collapsed into a pile of ash and rocks.

