OUR VOLCANO ISLAND

9:30-11:30a.m. **Meet At Jaggar Museum** **Grade 2**

Kīlauea Caldera and Halemaʻumaʻu Crater

Introduction:

Welcome to Jaggar Museum and the Halemaʻumaʻu Crater, the home of the fire goddess Pelehonuamea or Pele. Halemaʻumaʻu sits inside of Kīlauea Caldera. One reason Halemaʻumaʻu is known as the house of ferns is because it is named after the ʻamaʻu fern which is the kinolau or body form of Kamapuaʻa. (See the ʻamaʻu in front of the museum entrance and Kamapuaʻa in the Herb Kane Pantheon mural by the entrance doors.) We live on volcanoes that grew up from the bottom of the ocean floor by many eruptions. Hawaiian people bring *hoʻokupu* (offerings) to honor Pelehonuamea (Observe photo on table of new eruptive materials).

Essential Question: What are volcanoes?

Locating the Site: Map of our volcano island. Look at the relief map in the museum to find our location.

What do you know about our volcano island?

How many volcanoes make up our island?

What are the names of the volcanoes on Hawaiʻi.

Photo Analysis:

Find a photo in the museum similar to this one.

What do you see in the photo?

What do you think is happening?

Options:

See panels titled:

Eruption History

Volcano Products

Volcanic Landforms

Panel to the left of Eruption Update

Setting the stage:

Go to the Hawaiian Island Chain Panel to link the journey of Pelehonuamea and her family's travels from the northern-most islands, guided by her favorite brother Kamohoali'i who was also a guardian shark. Having traveled for many miles from Kahiki in search of a suitable home for her fire and family, Pele finally settled in the crater of Halema'uma'u at the summit of Kīlauea Volcano.

Everything that you see at the **volcano** (lava, steam, and craters) are all a part of the body form of Pelehonuamea. (Story depicted in panels in this area.)

When the Polynesians first came to Hawai'i (see Discover Hawai'i Panel), they saw many eruptions on their volcano island home. They had a respect for the land, honored the fire goddess Pelehonuamea and learned to live on an active volcano.

Move to photo of Dr. Thomas Jaggar to the left of the front door.

Almost 100 years ago, a scientist named Dr. Thomas Jaggar came to Hawai'i. He wanted to study Kīlauea and learn all about how volcanoes work.

Determining the Facts:

What is **lava**? Lava is hot melted rock that comes from deep inside the earth and up to the surface. Lava can also be cold and is what we see most of the time on the surface. (Compare and contrast.) When lava spurts out or flows on to the surface of the earth we call it an **eruption**. Look for eruptions panel.

Go to Eruption Forecast Panel:

Who do you think studies volcanoes? Scientists at the United States Geological Survey (USGS), Hawaiian Volcano Observatory, students.

'Ike Ku'una (traditional knowledge): When the first Polynesians came to Hawai'i, they saw many eruptions. Stories tell of how Pele created and destroyed the land. Polynesians watched carefully each time the volcano erupted. Scientists continue to watch and study the volcano and its eruptions. (Weave the culture and science.)

Science: Students discover and describe how a seismograph works. How many have felt an earthquake? Seismographs records the Earth's movement. Look at the various locations where seismographs are placed on Kīlauea Volcano. Ask students to interpret what is happening as they watch the seismographs.

Living on a volcano can be dangerous.

(See enlarged photos at end of lesson. Laminated one available at the Ed. Center)

Why do you think it might be dangerous to live on a volcano?

Visitors too close to lava flow

Volcano Gases

Scientific Evidence:

Look at the scientists' clothing and equipment-

Describe how you think it might feel to work near an eruption?

Visual Evidence:

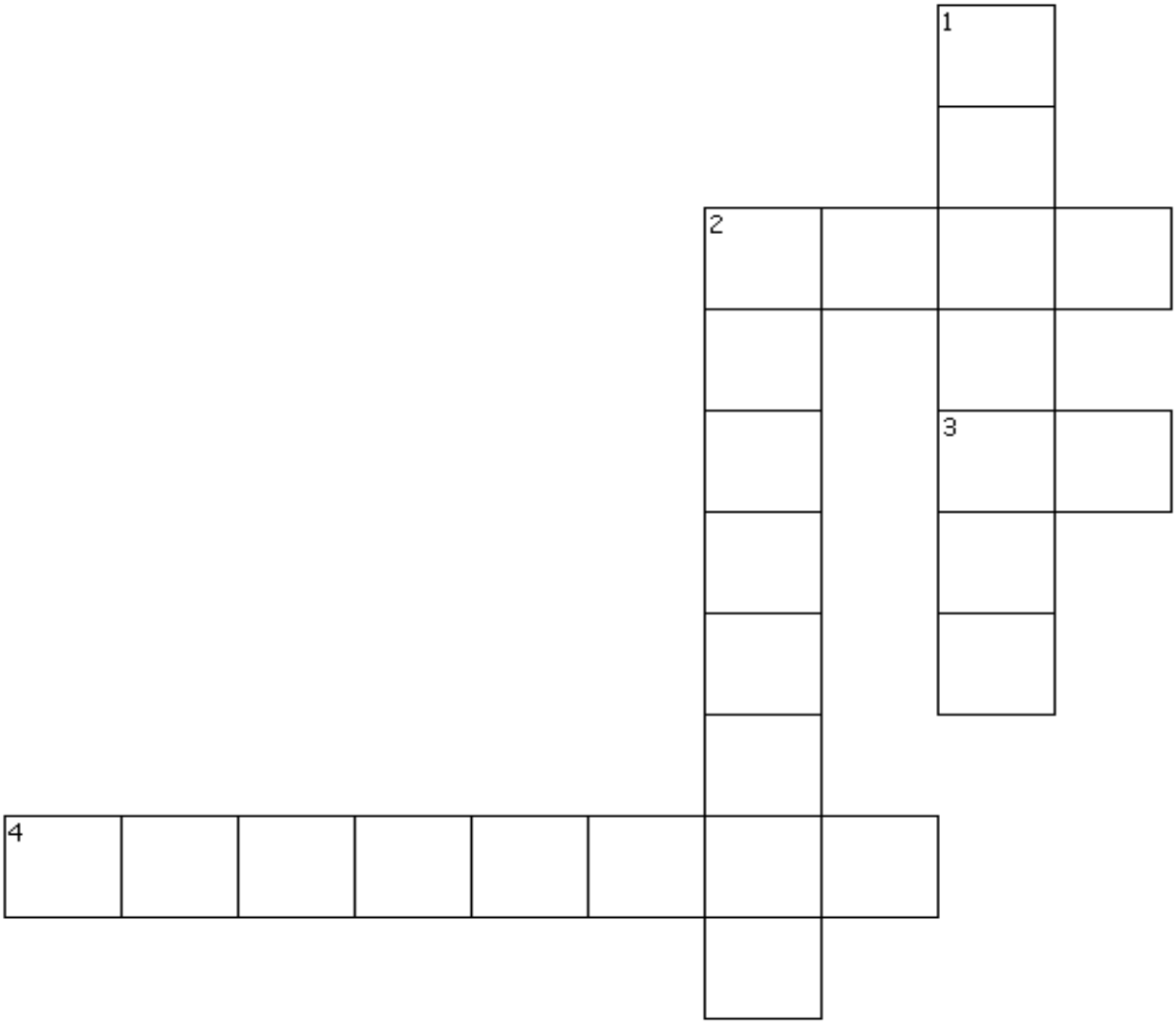
Walk to the overlook with students or, if not possible because of gases, look from the window inside Jaggar Museum. Discuss what they see and why it might be dangerous. Compare and contrast shield and composite volcanoes.

Look in the museum at the large **ʻaʻā** and **pāhoehoe** lava samples. Allow students to **see and touch** the two lava products. What colors do you see, which is smooth, rough, etc.? It's important that each student touches the smooth and rough samples.

Name _____

Volcano Crossword Puzzle

Vocabulary Words: volcano, ʻaʻā, pāhoehoe, eruption, Pele (Use letters only!)



Across

2. Hawaiian goddess of fire

3. sharp, jagged lava

4. when lava spurts or flows out from inside the Earth

Down

1. hill or mountain formed when lava erupts over and over

2. smooth rounded lava.

Closing:

Revisit the Essential Question:

What are volcanoes?

Ask students what the two most common forms of lava are, who is Pelehonuamea, where is her home, what is the name of her home, why is Pele important in Hawaiian culture, etc.? Ask why they think it's important for scientists to study the volcano. Name one aspect of living on the volcano. Review vocabulary.

Volcano Crossword Puzzle Answer Key:

Across

2. Hawaiian goddess of fire Pele

3. sharp, jagged lava ʻaʻā

4. when lava spurts or flows out from inside the earth eruption

Down

1. hill or mountain formed when lava erupts over and over volcano

2. smooth rounded lava pāhoehoe