

# A Kīpuka for Every School

## Lesson 1: Define a Kīpuka

### Lesson Objective(s):

- Develop a sense of what defines a kīpuka
- Create a model to share their understanding of a kīpuka
- Be able to interpret and quantify information

Learning Standard	
<a href="#">NGSS-4ESS2-2</a>	Analyze and interpret data from maps to describe Earth's features.
LA- RI.4.7	Interpret information provided orally, visually, or quantitatively.
LA- 4.RI.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
LA- 4.RI.4	Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.
SS.4.2.13.1	Identify major geographic characteristics of the Hawaiian archipelago, including its relative location to other major land masses

### Lesson Launch Notes:

The lesson will be launched with a leading question supported with visuals to start student inquiry based on observations and data collection.

### Lesson Closure Notes:

Students will draw a model of their class definition of a kīpuka.

### Define a Kīpuka (Total: 120 minutes)

#### Activity 1: What's a kīpuka? (20 mins)

1. Ask students if they know what a kīpuka is? Take answers from students but do not tell them if they are right or wrong.
2. Explain to students that you will show them three images of kīpuka. Have students take a moment to briefly observe the images then, create a Venn diagram to share the differences and similarities of the images.
  - a. Image 1: Sky- a blue space in a sky of clouds OR a single cloud in a sky of blue.
  - b. Image 2: Forest- a forested area surrounded by lava.

- c. Image 3: Ocean- a small area corral around sand, or a smaller sandy area around corral.
3. Have students briefly discuss with a partner their observations listed on the venn diagram of the different Kīpuka images.
4. As a class discussed, what they all observed and recorded.

### **Activity 2: A kīpuka explained**

1. Based on their observations, Venn diagram and class discussion, have students work independently to write a 1-2 sentence definition for the word kīpuka on a post it note and place it on the board. Names can be left off the post-it note. Remind students not to worry about getting it right or wrong, but giving it a try.
2. Have each student walk up the board with a pencil and place a star on any of the posts it notes that they agree with for a definition.
3. After each student has had an opportunity, tally up what two post it note definitions got the most votes. Share this with the class and see if they all agree or strongly disagree with these definitions.
4. From this discussion, come up with a class agreed upon definition for a kīpuka.

### **Activity 3: Explore other meanings of kīpuka**

1. Share with students the Hawai'i Volcanoes national park's definition of a kīpuka found at <https://www.nps.gov/havo/learn/nature/kipuka.htm>
2. Have students share key terms and meanings in the text. Support and guide students as needed by asking leading questions about the text. This may include
  - a. Where else in the world is the word kīpuka used.
  - b. How is a kīpuka like its own island?
  - c. Who does a kīpuka help an environment grow?
  - d. How do plants and animals behave or change from living in a kīpuka?
  - e. How is Hawai'i like a kīpuka to the world?
3. Have students visit [www.wehewehe.org](http://www.wehewehe.org). Search the definitions of the word kīpuka and how it can relate to their definition.

### **Activity 4: I Spy a kīpuka**

1. Walk with students outside, but not too far from the classroom space
2. Explain that we are going to try to find as many kīpuka as we can in a limited amount of time (5 minutes).
3. Give them a clipboard, piece of paper and pencil to jot down notes of where the spotted kīpuka spaces on the school campus are in a set area.
4. Have students come back to the classroom and share a few kīpuka spaces they observed. Ask if students have locations in common or what is different. Have students express why they name this space a kīpuka based on their definition.

### **Activity 6: Homework (5 mins)**

1. Have students draw an image of a Kīpuka that describes them..

**Evidence of Success:**

By the end of the lesson students will be able to:

- Define key features and elements of kīpuka
- Collaborate to create a definition for kīpuka
- Comprehend and compare different definitions of the same thing based on different sources.
- Create visual models and representations of a kīpuka.

**Vocabulary:**

Kīpuka- Variation or change of form (puka, hole), as a calm place in a high sea, deep place in a shoal, opening in a forest, openings in cloud formations, and especially a clear place or oasis within a lava bed where there may be vegetation.

**Resources:**

- Classroom access to the internet
- Pencil
- Colored pencils
- Paper

**Homework:**

Create a visual representation of a kīpuka based on their definition.