Activity #2

Where Does the Sand Come From?

● ● ● In Advance  Setting Up Information Stations

• Set up four information stations around the room using the “Information Station Graphics” (master, pp. 25-30) for three of them and vials of sand from Oneuli and Oneloa beaches for the fourth. (See class period one materials & setup below.)

● ● ● Class Period One  Where Does the Sand Come From?

Materials & Setup

• Small, labeled vials containing sand samples from Oneuli and Oneloa beaches (samples included with Activity #1, or instructions for collecting more in “Guidelines for Collecting Sand,” p. 8)
• “Information Station Graphics” (master, pp. 25-30)

For each student

• Student Page “Where Does the Sand Come From?” (pp. 31-32)

Instructions

1) Hand out a copy of the Student Page “Where Does the Sand Come From?” to each student.

2) Have students visit the stations, transferring relevant information to their own maps, and answering the questions on the student page.

3) Near the end of class, discuss students’ hypotheses about where the sand that comprises Oneuli and Oneloa beaches originates, and what accounts for the differences in particle size and composition that they observed during Activity #1 “Sand Analysis Lab.”

Journal Ideas

• Find out the meaning of the Hawaiian names, Oneuli and Oneloa. Write a chant or poem, or draw a picture that illustrates where the sand from each of these beaches seems to originate and how it might be deposited on the beach.

Assessment Tools

• Student Page “Where Does the Sand Come From?” (teacher version, p. 24)
• Journal entries
Some teacher-only resources have been omitted from the online document. They are available as password-protected files at:

www.hear.org/hoike/teachermaterials
Information Station Graphics

Station #1: Aerial Photos of Oneuli and Oneloa Beaches

Oneuli Beach

Photo: Air Survey Hawai‘i
Oneloa Beach

Photo: Air Survey Hawai‘i
Station #2: Photos of Oneuli and Oneloa Beaches

Oneuli Beach

Photos: Ann Fielding
Oneloa Beach

Photos: Ann Fielding
Station #3: Maps Showing Bottom Types and Major Currents

Map of ocean bottom types and near-shore currents

- Mixed living coral and rock bottom
- Living coral bottom
- Basalt wall and cinder slopes
- Hard, smooth area of dead coral with some live coral
- Large deposits of sand
- Prevailing current
- Strong current
- Oneuli Beach
- Oneloa Beach
- Coral reef
Map of Major Ocean Currents Around Maui
Where Does the Sand Come From?

Read the questions that follow the map. Use the maps and graphics at the information stations to help you answer them. Record relevant information from those maps and graphics onto this page. Make additional sketches and notes as needed.
1) Where does the sand on Oneuli beach come from?

2) Where does the sand on Oneloa beach come from?

3) What factors may explain the differences in sand composition and particle size between the two beaches?

4) What additional information would you need to have to be more confident in your hypotheses? How could you collect that information?