Understanding the Kalihi Stream Environment –
From the big to the little (food webs to cells) Lesson 5

Objectives
The student will be able to do the following:

- Describe and illustrate differences between a plant and animal cells
- Identify plants as the main source of energy in a food chain
- Diagram a food web (advanced) or food chain

Materials

- Microscopes (the more the better)
- Prepared slides with plant and animal cells
- Worksheets (one per student)
- Food web kits, one per group
- Crayons, colored pencils, etc.
- Extra paper (if desired)
- Glue or tape (if desired)
- Overheads or pictures of cells and food webs

Background
This unit uses the Kalihi Stream environment to target two specific Hawai'i state standards (food chains/webs and plant v. animal cells). Within the context of the Kalihi Stream project, this activity continues to build a better understanding of the relationships between organisms in the stream environment. This unit introduces cells and food chains/webs (although students may already know these), but also provides a hands-on activity to showcase advanced understanding.

Advance Preparation
For the sake of time, slides with plant and animal slides should be prepared in advance of class (given more time, students could themselves prepare slides by swabbing the inside of their cheeks and using onions). Microscopes should be set up in one corner of the room to make it easy for one teacher to assist students using them. Other students should work in their groups.

Each student should have a copy of the worksheet.

Each team should have a food web kit. Kits can be assembled by printing out the schematics of animals, plants, and arrows, cutting these apart, and paper clipping them together to make one kit per group.

Procedure

1. Have students read the introductory paragraph. Pause at certain questions and vocabulary words to go over anything difficult or worthy of extra attention.

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