

Practice: Is the Activity Matched to the Main Learning Goal?

For each activity:

- How well is the activity matched to the main learning goal (closely, partially, weakly, not at all)?
- How might the activity be changed to better match the main learning goal?

Main learning goal: When energy moves from one organism to another in a food chain, it is used for life functions and given off as heat, but it is not recycled.

Activity 1: Observe Burning Peanut

Watch as your teacher burns a peanut. [**Note to teacher:** A peanut contains a lot of energy (Calories), so students may be surprised how long it burns.]

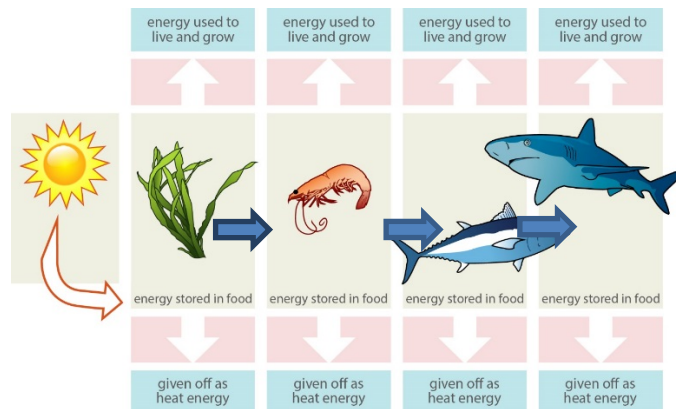
What evidence that do you have that the peanut stores energy? _____

What happens to the energy in the peanut as it burns? _____

Activity 2: Analyze a Food-Chain Diagram

Study the diagram below. Each arrow shows something about how energy moves in an ocean food chain. Use data in the diagram to answer the focus question, *What happens to energy in food chains? Is it recycled?*

Does this diagram provide evidence that energy is recycled and reused by producers?



The diagram shows that light energy _____.

The diagram shows that food energy _____.

The diagram shows that heat energy _____.

I think the diagram shows that energy [is/is not] recycled in the food chain. My evidence is _____
 _____.

Activity 3: Construct a String Food Web

Pick 10 students from the class and ask each of them to pretend to be an organism from the following list:

Producers	Primary Consumers	Secondary Consumers	Decomposers
Grass	Grasshoppers Rabbits Finches Caterpillars	Snakes Robins Praying mantises Hawks	Bacteria

Use a piece of kite string to connect each “organism” to each of its food sources. Make sure that every organism is connected to every other organism it uses for food.

As the connections are being made, explain that the string represents a food-obtaining interaction between the connected organisms. Food is passed from one organism to another. Ask students, “What is our scientific definition of food? What is being passed from one organism to another?” [Answer: matter and energy.]

Once all the connections are made, ask each student organism to share out: “How are you getting the matter and energy you need to live?” Have them respond in a complete sentence: “I am getting my matter and energy from _____.”

Explain that scientists call these food-obtaining relationships in a community a food web. Ask students, “Why do you think scientists call these interactions a food web?”



Courtesy of Pixabay.com