



Delicious And Nutritious

Objectives:

Students will be able to:

- trace the flow of energy from sun to peanut plant to person consuming the peanut.
- identify the nutritional benefits of including peanuts and peanut products in a healthy diet.

National Learning Standards:

Next Generation Science Standards

- 5-PS3-1: Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

Activity Description: The class works together (as a large group or in collaborative working groups) to move cotton balls (representing energy) from an area identified as the sun, to a peanut plant, and finally to three paper sacks labeled "Protein", "Vitamins and Minerals", and "Good Fats".

Materials

- Image of the sun (1)
- Peanut plant or an image of peanut plant (1)
- Paper grocery sacks (1 per group of 5-6 students)
- Markers (1 marker per group of 5-6 students)
- Plastic spoons
- Cotton balls (1 bag)
- Peanuts in shell (At least 10 per group of 5-6 students)

Activity Steps

Activity Prep:

- Create an image of the sun and post on one side of the room. Place the bag of cotton balls near the image of the sun.
- Place a peanut plant, or image of a peanut plant in the center of the room. Empty bag of peanuts near peanut plant.

Step 1: Divide students into groups of five to six. Give each group a paper sack and a marker.

Step 2: Inform students that peanuts are a nutritional food choice! Packed with 30 essential nutrients, peanuts can be a "nutrient-rich" part of a healthy diet. Using a projector or white board, display the key nutrients provided by peanuts. Have groups capture these nutrients on their paper sack and draw an icon to represent each.

- Proteins: necessary for structure, function and regulation of the body's cells, tissues and organs.
- Fats: unsaturated fats (mono and poly) are "good" fats to choose more often, while saturated fats should be avoided; fats can be a source of stored energy; even though not all fat is bad, eating too much fat is not healthy. "Good" fats help you feel full and store energy.
- Antioxidants: help reduce the damage of oxygen in tissues.
- Fiber: keeps your digestive tract healthy!
- Calories: provide nutrient-rich energy for your body.

Step 3: Place paper sacks on the side of the room opposite the sun. Have groups line up near the sun.

Step 4: Explain the relay race. Energy from the sun makes peanut plants grow, which then provides energy for humans. Use a plastic spoon to pick up a cotton ball near the sun (unit of energy). Carry the cotton ball to the peanut plant in the center of the room. Drop the cotton ball and pick up one peanut. Use the spoon to carry the peanut to the paper sack. Race to see how quickly your group can get 10 peanuts in your paper sack!

Processing Questions:

1. Describe the energy cycle in the activity we just completed.
 - a. Listen for students to articulate how energy moves from the sun to the plants to humans through consumption.
2. Hypothesize why peanuts, and specifically peanut butter, are in high demand at food pantries where people need food.
 - a. Listen for students to highlight the nutrient density of peanuts and the amount of essential nutrients (30) contained in peanuts.

It's A Fact!

Peanut butter is an excellent source of niacin, and a good source of vitamin E and magnesium.¹⁰ For more information on peanut nutrition, visit peanutinstitute.com.