California Foundation for Agriculture in the Classroom

Supreme Seeds

Purpose

The purpose of this lesson is to review the functions of seeds and to learn about plants that are grown for their edible seeds.

Time

Teacher preparation:
15 minutes

Student activities:
40 minutes

Materials

For each student:

- Poster board or cardboard

For each group of four students:

- A wide variety of dried seeds such as beans, sunflower seeds, peas, rice, caraway, or millet. You can buy birdseed mix or bags of beans in the soup section of your grocery store.
- Felt pens
- Glue
- Egg carton

Background

Plants produce seeds so their species will continue to exist in nature. Each seed contains a tiny plant embryo with one or two cotyledons or "seed leafs," which supply the seed with energy and materials for growth until the young plant grows its first true leaves and makes food for itself through photosynthesis.

Seeds provide nourishment to people all over the world. Corn, oats, rice, and wheat seeds are known as cereal grains and are part of the grains food group. Whole grains are an important source of dietary fiber, which is important for proper bowel function and may lower the risk for heart disease and obesity. Grains are also a source of B vitamins, which help the body release energy from the food that we eat.

Edible seeds, known as legumes, include peanuts, peas, and beans. Other edible seeds include nuts, such as walnuts, almonds, pistachios, and pecans. These nuts have protein and are part of the protein food group. Proteins are an important part of our diet because they serve as building blocks for muscle, cartilage, bones, blood, and skin.

Procedure

1. Place a wide variety of seeds in to the compartments of the egg cartons. Distribute one filled egg carton to each group of four students.
2. Provide time for the students to examine the seeds. As a class discuss the similarities and differences between the seeds. Sort them into piles. Which seeds do people eat? Which seeds do birds or other animals eat?
3. Discuss the function of seeds.
4. Read selected stories about different seeds such as *Which Seed is This?* by Lisa Amstutz, *Seeds* by Vijaya Bodach, *Spot the Difference: Seeds* by Charlotte Guillain, and *A Packet of Seeds* by Deborah Hopkinson. See page 66 for related literature.
5. Have each student make a seed mosaic as follows:
    a. Have each student sketch a simple picture or design on posterboard or cardboard. Ideas include basic outlines of fish, tractors, cars, birds, pears, trees, and more.

California Foundation for Agriculture in the Classroom

Supreme Seeds

Content Standards

Grade 2

Science 2f, 4c

Next Generation Science
2-PS1-1, 2-PS1-3

Visual Arts 1.1, 2.1, 2.2, 5.1

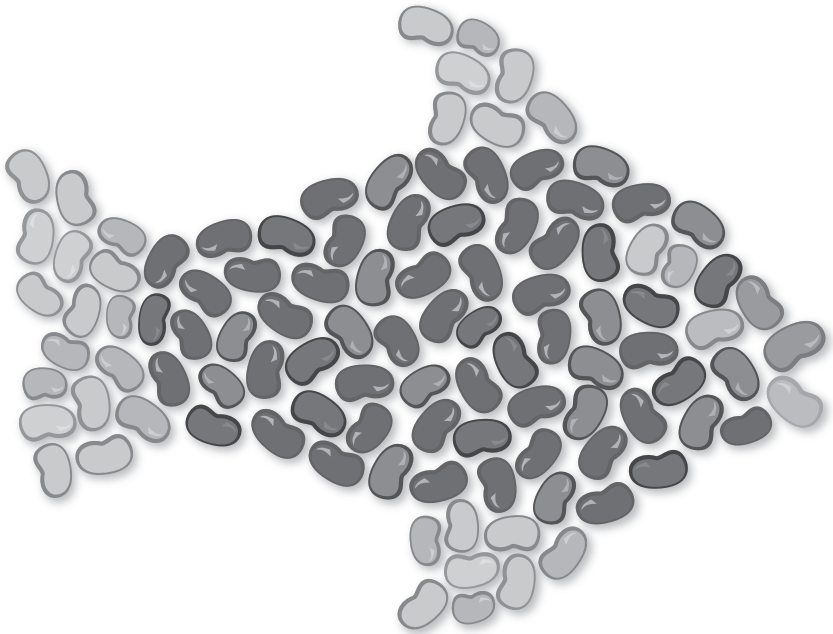
Health 1.1N

English Language Arts
- Reading Informational Text 10

Grade 3

Visual Arts 1.1, 1.5

b. After giving students a demonstration of how they can glue seeds on their poster board to create different designs, have students create their own colorful display.



c. Display the mosaics in the classroom, school hallways, and offices.

Conclusion

Seeds come in various shapes and sizes. Seeds have many functions, including plant reproduction, and are also a common food source around the world.

Extensions

- Have the students examine a mature sunflower. Instruct the students to estimate the number of seeds in the sunflower, then count the seeds as they remove them. Roast the seeds and enjoy eating them.
- Have students save seeds from fruits and vegetables they eat. Have students draw a picture of the fruit or vegetable and then glue the seeds onto the paper to form an outline of the drawing. Bind the samples together to make a class seed book.

Supreme Seeds

- Organize a "Seeds for Lunch" day. Each dish must contain edible seeds. Examples include corn bread, peanut butter and jam sandwiches, rice pudding, granola, burritos, popcorn balls, banana-nut bread, chocolate covered raisins, and corn on the cob.

- Have the students examine various ways seeds promote their own dispersal. For example, some seeds get caught in animal fur while others are carried by the wind. Seeds, such as coconuts and cranberries, float, some get dispersed in animal scat, and others spread by exploding.

Variation

- Use birdseed or feed grains in a classification activity and discuss the different seeds that are fed to livestock.

ELL Adaptations

- Model the *Think, Pair, Share* method: Tell students to ask a partner, "Name a type of seed that people eat." Their partner should then respond, "People eat sunflower seeds."

- Provide a variety of seeds and their name labels for display.