



# POWERFUL POTATO

**GRADE LEVEL:** K-1

**SUBJECT:** Science

**NATIONAL STANDARD(S)**

(K-2) SC: 2.1, 4.1, 5.1, 5.2, 6.1, 7.1, 8.1

**THEME:** Potatoes

**FOOD AND FIBER TOPIC:** I-B; II-D; III-A,B,C

**LEARNER OBJECTIVE:**

Students will observe the growth process of a potato plant.

**VOCABULARY**

*Andes Mountains*—A mountain range that lies on the southeast side of South America and runs all the way to up the coast.

*archaeologist*—A person who studies ancient civilizations and cultures.

*harvest*— The time of year when mature grain, fruit and vegetables are ready to be gathered and brought in from the fields.

*new potatoes*—Small potatoes that are commonly grown in home gardens.

*tuber*—A short thickened, fleshy part of an underground root system of a plant.

**BACKGROUND**

Potatoes were first grown by Indians in the Andes Mountains of Bolivia and Peru as early as 200 AD. Archaeologists have found pictures of potato plants in designs on ancient pottery. The Indians preserved the potatoes by trampling them and then drying them.

Even though potatoes were first grown in South America, people in North America did not start eating them until after they became a popular food in Europe. European explorers carried potatoes from South America to Europe in 1570. About 150 years later the rulers of several European countries ordered their people to start growing potatoes. In Ireland, potatoes became the main food for the people. In the 1840s disease wiped out the potato crop in Ireland for two years in a row. Many Irish people moved to America then because they had no food to eat.

The part of the potato plant we eat is called a “tuber.” A tuber is a part of a stem that grows underground where food for the plant is stored.

Most of the world’s potatoes today are grown in Europe. Potatoes are also grown in all 50 of the United States. The biggest potato-producing state is Idaho. Throughout the US many people grow potatoes in their home gardens and harvest the tubers while they are still small. These are called “new potatoes.” The average American eats around 65 pounds of potatoes a year.

**STEP-BY-STEP INSTRUCTIONS**

1. Plant a potato in a large clay pot or gallon bucket. You may purchase seed potatoes from a seed outlet in early spring or use a potato from home that has started to sprout. Make sure your container has drainage holes.

2. Place the potato, eye end up, in moist potting soil. Cover the potato with more soil until the pot is half full. Place the pot in a sunny spot. Water when dry.
3. As shoots appear and get tall, tie them to a stake. When flowers start to appear, stop watering to prevent the potatoes from rotting. As the potatoes grow, they may push up the dirt around the stem or even crack the container in which they are planted.
4. After six to eight weeks, when the top of the potato plant starts to die, harvest them by gently pulling the plant out of the pot. Lay the plant on newspaper, and have students sift through the dirt to find the potatoes.
5. Use your crop to make a delicious treat—French-fried potatoes, potato salad, or potato soup.

### RELATED ACTIVITIES

1. Have students name their potatoes and make up stories about them.
2. Bring in a baking potato. Set it out on a paper plate. Have your class keep track of how many days pass before the eyes begin to sprout.
3. Make up a classroom story explaining why a potato needs so many eyes.
4. Review your school menu to see how many times a week potatoes are used. What are the different ways they are cooked? Have students graph the information.
5. Bring in a variety of potatoes, and have students sort them by size, color and shape, and then weigh and measure them.

### RESOURCES

#### *Student Books*

- Amery, H., and Civardi, A.(1977) The Know-How Book of Print and Paint. EDC.
- Bourgeois, P.(1991) The Amazing Potato Book. Addison-Wesley.
- DePaola, T. (1992). Jamie O'Rourke and the Big Potato: An Irish Folktale, Putnam
- Ehlert, L. (1988). Growing Vegetable Soup, Harcourt, Brace, Jovanovich.
- McDonald, M. (1991). The Potato Man. Orchard.
- Meltzer, M. (1992). The Amazing Potato: A Story in Which the Incas, Conquistadors, Marie Antionette, Thomas Jefferson, War, Famines, Immigrants, and French Fries All Play a Part. Harper Collins.
- Pomeroy, D. (1996). One Potato: A Counting Book of Potato Prints. Harcourt Brace
- Rockwell, A. (1996). Sweet Potato Pie. Random House.
- Selsam, Millicent E. More Potatoes. Harper and Row, 1972.
- Watts, Barrie. Potato. Silver-Burdett, 1987.

#### *Teacher Resources*

- “Food Activities For Children” – Includes puzzle, science lessons and other activities. For one copy, send a SASE to: Bureau of Nutrition, New York City Department of Health, 93 Worth St. Room 714, New York, NY 10013
- Mudluscious: Stories and Activities Featuring Food for Preschool Children. (1986) Libraries Unlimited.
- “Potato Prime” – A usage and handling guide for America’s favorite vegetable. National Potato Board, 1385 S. Colorado Blvd., Suite 512, Denver, CO 80222.

### ***Related Internet Websites***

Idaho Potato Commission, Idaho potato recipes, teaching materials, nutrition and reference information, contacts and more. <http://www.idahopotatoes.com>

### **EVALUATION**

Did the students enjoy planting and harvesting the potatoes?

### **ACKNOWLEDGMENT**

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