

Soggy Science, Shaken Beans

Ages 5 and older.

Have you ever heard of soy sauce, soy milk, or tofu? Soybeans are plants used to make these foods. Soybeans can be many different colors (black, brown, gray, and yellow). Soybeans are nutritious, so people and some animals use them as food. They are even used to make some kinds of crayons. Percy Julian used soybeans to make medicines, special paints, and other items. In this activity, you will observe and learn about soybeans, then make a shaker that has soybeans inside.

YOU WILL NEED

- 1/2 cup dry soybeans soaked overnight in water (purchase at Asian markets)
- about 25 dry soybeans (in one of the 3-oz cups)
- empty paper towel or toilet paper cardboard tube
- two 3-oz paper cups
- magnifying glass
- masking tape
- crayons or markers
- optional: string, feathers, and glue for decorating shaker

Percy Julian and Soybeans

Percy Julian was a teacher and a scientist. As a scientist, he separated chemicals from soybeans that were eventually used to make many things such as medicines, foam to put out fires, paper coatings, and paints.

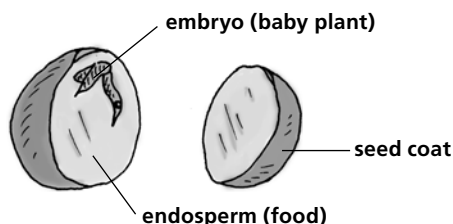


WHAT TO DO

Part 1

Use a magnifying glass.

1. Look closely at the dry soybeans. What do they look like? What color are they? What do they feel like? Are they all the same size?
2. Next, look at a soybean that has been soaked in water for 2 or 3 days. How has the water changed the soybean? Peel the covering. This is the seed coat. Why do you think it is called a coat? Why do you think the bean has a coat?
3. Use your fingers to pry open the soybean to see the inside of it (an adult may have to help you). What color is the inside? What does it look like? What does it feel like? Do you see something that looks like a baby plant?



Part 2

1. Make soybeans shakers.
 - Draw colorful designs or patterns on the tube.
 - Place the bottom of a cup into one end of the tube (see picture).
 - Tape the cup to the tube.
 - Gently pour the dry soybeans into the tube.
 - Hold the tube so that the open end faces up and the soybeans stay inside the tube.
 - Place the bottom of the second cup into the open end of the tube, and tape this cup to the tube.
2. Shake away!

LEARNING MORE

Field of Beans

by Soni Ware.
Berry Books, 1999.

Describes various uses for soybeans and includes an activity.

One Bean

by Anne Rockwell and Megan Halsey (Illustrator).
Walker, 1998.

Describes how a bean sprouts and includes three bean activities.

North Carolina Soybean Producers Association—Connections for Kids
<http://www.ncsoy.org/kids.htm>

Explains the history of soybeans and how soybeans are grown, used, and processed. Includes a word search, soybean quiz, and science experiments.

