

UNIVERSITY OF MINNESOTA

K-12 Education

Soil Baby

Adapted by

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Objective: To help students understand the basic needs of a plant.

Introduction: Plants have many needs. Discuss what those needs are. Using the MN Ag in the Classroom commodity cards look at some of the plants that are grown by farmers in Minnesota. Look at the things that they have in common and the things that are different about the various plants. Explain that today's activity will help them learn about the basic needs of a plant in a unique way.

Input and Procedure: Give each student one non-support knee-high hose. They may want to cut off the stretchy elastic band at the top of the hose to make it easier to work with this project. Place a pinch or two of grass seed (annual ryegrass works well for this project) in the toe or where you want the grass to grow. Remember that the grass represents the "hair." Pack a handful of soil in the end of the hose on top of the seed. Tie a knot in the hose under the ball of soil. Place the top of the hose (which is the bottom of the Soil Baby) in a tall baby food jar filled with water. The hose will absorb the water and saturate the head of the Soil Baby, which is above the mouth of the jar. To decorate, cut a round piece of fabric to fit over the mouth of the jar. Glue juggle eyes on the face and cut out a heart-shaped piece of felt for the mouth. Glue into place. You may want to give the Soil Baby a good soaking initially, and then water as needed. In 10 – 15 days, the seeds should germinate through the hose. You may have to cut a few holes to aid in this process. You can cut and style the hair as desired.

Closure: Thinking about the needs of a plant, discuss some good places in the classroom to put their Soil Babies. Talk about places that wouldn't work well for germinating Soil Baby. Discuss ways that students could record the day-to-day changes they observe in the Soil Baby. Work with some of the extension ideas.

Extension Ideas:

- Have students measure and record the amount of soil used in this activity.
- Have students name the Soil Baby and create a life story about it.
- Discuss the life cycle of plants from seed to maturity.
- Have students research types of grass. What are the best growing conditions?
- Discuss the nutrients necessary for plants to grow. When and why do you fertilize the lawn?
- Keep records of the classroom and outdoor temperatures. Is there an optimum temperature for the best growth of grass?

- Have students gather information from the seed bag. What is the percent of germination? Are there weed seeds present in the grass seeds? How do weeds affect the growing of the grass? Students could report their findings to the class.
- What are the concerns with fertilizing grass and spraying for weeds? (You could refer to the Integrated Pest Management book from Ag in the Classroom.)
- Review parts of the grass plant.
- Describe how ruminates, such as cows, can utilize the energy in grass. Why can't people eat grass?
- This activity also relates well to the study of the prairies in Minnesota. A complete K-6 "Prairie Curriculum" is available from the University of Minnesota Southwest Research and Outreach Center located in Lamberton, MN phone number 507-752-7372.

Materials:

Baby food jars	Wiggle Eyes
Rye grass seed or any other grass seed	Felt
Potting soil or potting medium	Fabric
Knee-high panty hose	Washable craft glue

Partnering:

University of Minnesota
 College of Agricultural, Food and Environmental Sciences
 Research and Outreach Centers*
 Minnesota Ag Education Leadership Council
 Extension Service
 Minnesota Ag in the Classroom
 Minnesota Pork Board
 Minnesota Soybean Research and Promotion Council
 Midwest Dairy Association
 Martin County Corn and Soybean Growers
 Redwood Area Schools

*Centered at Southwest Research and Outreach Center

To be used with:
Soil: The Strength of the Prairie

Soil - Sam Diagram

