

Soil Buddies



Overview:

This is a great activity because it is very hands-on with a lasting finished product. You can certainly talk about agriculture... emphasis can be on what plants need to germinate and live (soil (nutrients), water and sun.).

Three or four days ahead of time start your own Soil Buddy so your students can see what it will look like.

Materials needed:

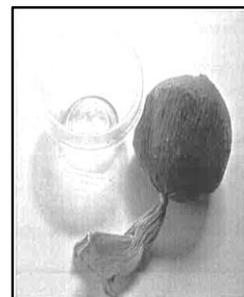
- Knee-high nylon stockings (do not use reinforced toes)
- Lawn grass seed, oat or wheat seed
- Potting soil
- Plastic cups 4-6 oz. size OR 5 oz. bathroom cups
- Large serving spoon and table spoons for measuring soil and seed
- Small rubber bands
- Permanent markers and other material to create faces and designs (example: wiggle eyes, pom-poms, felt, pipe cleaners, scissors, low heat glue gun for securing decorative material).

Steps to follow:

1. Each student is given a cup and a knee-high nylon stocking (the stocking). This will become the Soil Buddy. The stocking can be placed in the cup to act as a holder, help control the soil and serve as a mold.
2. Have each student place a heaping spoonful (tablespoon) of grass seed in the toe of their stocking. This is where the grass will sprout from and grow. As the grass seed sprouts and grows it will look like hair.
3. Students should place a healthy amount of potting soil (5-6 large serving spoon size) of potting soil into the nylon, covering the grass seed.

Note: When you are making the Soil Buddies, think upside down. The “toe” of the stocking will become the top of the Soil Buddy's head.

4. Form a ball while pulling the nylon tight and tie the knot at the base of the ball of soil.
5. Flip the Soil Buddy over so the grass seed is on top and the knot is on bottom.
6. Pinch out a nose in the middle of the “face,” and secure it with a rubber band.
7. Students can make faces for their Soil Buddies using the materials you have provided (permanent markers, wiggle eyes, pipe cleaners for glasses.) Students can draw a face or design on the plastic cup with a permanent marker.
8. Fill the cups halfway with water, and set the Soil Buddy in the cup so the end dangles in the water and the head rests on the rim of the cup. The nylon will wick the water up and saturate the head of the Soil Buddy.
9. Spritz the head with water to get it started.
10. Set in a sunny location.
11. Add water as needed in the cup for the stocking to wick up the moisture. In 7-10 days depending on the seed type, the seed will germinate and “grow through the nylon forming “hair”. The grass will grow through the stocking. After the “hair” grows to the desired length, cut and style as desired. Note: As long as Soil Buddy has plenty of water, it will keep growing.



Simple Science

- Grasses feed people and other animals. Worldwide, grasses are a main part of people's diet. Grasses provide all of our cereal crops, the grazing for our domesticated cattle and sheep, and most of the world's sugar.
- Grasses are the main food of an amazing range of herbivores from tiny caterpillars, to deer and elk, or Pandas which depend entirely on bamboo (which is a grass).
- Grass conserves water and cleans the air. Grass traps water and reduces soil erosion. The average grassed yard can absorb more than 6,000 gallons of rainwater. All plants help clean the air. Grass areas trap about 12 million tons of dust and dirt from the air each year. One acre of grass can absorb hundreds of pounds of sulfur dioxide in a single year.

Observation and Data Collection

- What are the three requirements of plant growth?
- Check the Soil Buddy periodically and observe how long it takes for the head to become saturated. How much of the water remains in the bottom of the cup?

Discussion Questions

- Lead a discussion about the interdependence of humans and the environment. How are grass, cows and humans interdependent?
- Students share their own experiences with yard work.
- How is hair like grass? How is it different?

English Language Arts

- Complete the "birth certificate"
- Students can write descriptive narratives about their Soil Buddy.

	SOIL BUDDY BIRTH CERTIFICATE	
Name: _____		
Date of Birth: _____		
Place of Birth: _____		
Belongs To: _____		