Terrariums

Materials: 1-2-liter clear plastic bottle with a cap or container with a lid, ruler, permanent marker, scissors, handful of small stones or pebbles, potting soil, seeds or seedlings (small plants), activated charcoal (optional), sphagnum moss (optional), water

Background Information: A terrarium is a collection of small plants growing in a transparent, sealed container. A terrarium is a closed environment, and can actually be used to illustrate how an ecosystem works. Inside a terrarium’s walls, many different natural processes may be observed: photosynthesis, respiration, and the water cycle. The water in the terrarium is constantly recycled, passing from liquid form to gas and back again. As the moisture in the air condenses on the walls of the container, it returns to the soil and is absorbed by the plants’ roots.

STEM Career Connection: An arborist is a specially trained professional who deals with the art and science of planting, caring, maintaining, and diagnosing trees. Dendrologists study the characteristics of trees, shrubs, lianas, and other woody plants.

Literature Connections: A Family Guide to Terrariums for Kids: Imagination-inspiring Projects to Grow a World in Glass by Patricia Buzo

Challenge:
1. Gather materials.
2. If using a bottle with a small opening, draw and cut a line around the bottle about six inches up. This will provide easier access to the inside of the bottle.
3. Place a handful of stones in the bottom half of the bottle/container about 1-2 inches deep.
4. Place your other materials in the bottle. The charcoal then the moss then the soil. If you are not using charcoal or moss then put just the soil in. Fill the bottle/container to about 1 inch from the top. Now plant your seeds or seedlings. You should plant 6 to 10 seeds and later as they grow you can pluck out some of the weaker ones and leave the 2 or 3 best ones.
5. Water the seeds/plants in your terrarium. The soil should be moist but not soaked.
6. Now place the top on. If using a cut bottle, it’s best to squeeze the top onto the bottom so the top is on the outside.
7. Place the terrarium in a sunny spot. In a few days your seeds should germinate and in no time you will have a soda bottle terrarium that looks as nice as this one.

Source: http://www.stormthecastle.com/terrarium/soda-bottle-terrarium.htm

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