

Dirt Babies

Objective

Students will observe the life cycle of a plant and then write a narrative about their observations.

Background

Of all plants, grasses are the most important to the diets of humans. Corn, wheat, oats, rye, barley, rice, even sugarcane are all grasses. Before there were people here, Oklahoma was covered with grass that grew taller than most adults. Because there were few trees, the early settlers thought the land was no good. They were wrong. Grasses can withstand environmental extremes that kill trees. So the grasses these pioneers saw were uniquely adapted to the multitude of soil, temperature and precipitation variations and combinations present on the Plains.

Most people who live here now grow grass in their yards. Grass makes things cooler in the summer and keeps out dust in dry weather and mud when it rains. Grass will keep growing back after it is cut, as long as it is not cut too short. About 100 years ago most lawns were “clipped” by cows, sheep or horses.

Grass can be grown from seed or by transplanting strips of turfgrass. Turfgrass is grass that is grown on a turfgrass farm and then cut in strips and rolled for transporting. The turfgrass industry is a growing industry in Oklahoma. Ryegrass is another important crop in Oklahoma. In 2002, Oklahoma led the nation in the production of rye. Rye is a kind of grass that grows quickly and can tolerate shade.

Science

1. Three or four days ahead of time start your own dirt baby (directions below) so your students can see what it will look like.
2. Read and discuss background.
 - Lead a discussion about the interdependence of humans and the environment. How are grass, cows and humans interdependent?
 - Students will share their own experiences with yard work.
3. Show students the Dirt Baby you have made in advance.
 - Ask: “How is hair like grass? How is it different?”
4. Students will make their own Dirt Babies, as follows:
 - For each dirt baby, slide the yogurt cup funnel through the opening of the hosiery to the toe to hold the hosiery open.
 - Place a generous pinch or two of grass seed in the toe of the hosiery.
 - Pack a handful of potting medium on top of the seed.
 - Remove the funnel, and pull the mesh tightly over the ball of

Oklahoma C3 Standards

GRADE 1

Science Process—1.1,2; 3.2

Physical Science—1.1

Life Science—2.1

Visual Art—3.2

COMMON CORE

Language Arts—1.W.3,5;

1.L.1,2,6

GRADE 2

Science Process—1.1,2; 3.2

Physical Science—1.1

Life Science—2.1

Visual Art—3.2

COMMON CORE

Language Arts—2.W.3,5;

2.L.1,2,6

GRADE 3

Science Process—1.1,2; 3.2

Visual Arts—3.2

COMMON CORE

Language Arts—3.W.3,5;

3.L.1,2,6

GRADE 4

Science Process—1.1,2

Visual Arts—3.1,2

COMMON CORE

Language Arts—5.W.3,4,5;

5.L.1,2,6

GRADE 5

Science Process—1.1,2

Life Science—1.2

Visual Arts—3.1,2

COMMON CORE

Language Arts—5.W.3,4,5;

5.L.1,2,6

Materials

knee-high nylon mesh stockings
grass seed
light-weight potting medium
empty yogurt container or cup with the
bottom cut out to serve as funnel
felt, google eyes, pom poms and other
materials for creating faces
low melt glue guns
5-ounce bathroom cups

Vocabulary

barley—a cereal grass with flowers in dense spikes; also : its seed used especially in malt beverages, in foods (as soups and cereals), or as feed for livestock

corn—a tall widely cultivated American cereal-producing plant of the grass family bearing seeds on long ears which are used as food or for feeding livestock

grass—any of a large family of green plants (as wheat, Indian corn, bamboo, or sugarcane) with jointed usually hollow stems, long slender leaves, and small dry one-seeded fruits often in groups

oats—grain that is widely grown for its long loose clusters of seeds which are used for human food and for livestock feed

rice—a southeast Asian grass widely grown in warm wet areas especially for its seeds which are used for food

rye—a hardy annual cereal grass widely grown for grain and as a cover crop

sugarcane—a tall tropical grass that has a thick jointed stem and is widely grown in warm regions as a source of sugar

wheat—a cereal grain that can be made into a fine white flour used mostly in breads, baked goods (as cakes and crackers), and pasta as (as macaroni or spaghetti) and that is used in animal feeds

soil.

—Tie a knot at the base, keeping the mesh pulled as tightly as possible over the ball of soil.

—Flip the “baby” over so the grass seed is on top and the knot is on bottom.

—Help students make faces for their babies using the materials you have provided. Pinch out a nose in the middle of the “face,” and secure it with a rubber band. Students may use pipe cleaners to make glasses and dress their babies by cutting a round piece of fabric to fit over the mouth of the cup. The clothes can be decorated with lace or other materials.

—Fill the cups halfway with water, and set the baby in so the end dangles in the water and the head rests on the rim of the cup.

—Spritz the head with water to get it started.

—Check the baby 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?

—Add water as needed. In 5-10 days the seed should germinate through the hose.

—After the “hair” grows to the desired length, cut and style it as desired.

5. Students try using different kinds of fast-growing seed—radish, lettuce, alfalfa, etc.—to grow a multi-ethnic community of dirt babies.
6. Plant wheat in any container, and cut it occasionally.
—Students will graph growth rate.
7. Bring examples of different kinds of grasses to class. (See vocabulary words.)
8. As a variation on the Dirt Baby, have students grow a “Very Hairy Caterpillar.” (See “Crafts,” under “Food and Fun,” on the website.)

Language Arts

1. Students will write descriptive narratives about their dirt babies, using the worksheet provided.

Extra Reading

Anno, Mitsumasa, *Anno's Magic Seeds*, Penguin Putnam Books for Young Readers, 1999.

Fleischman, Paul and Judy Pederson, *Seedfolks*, HarperCollins, 1997.

Lobel, Arnold, *Frog and Toad Together*, Harper Festival, 1999.

Pascoe, Elaine, *Seeds and Seedlings*, Blackbirch, 1996.

Tolstoy, Alexsei, and Niamh Sharkey, *The Gigantic Turnip*, Barefoot, 1999.

