

Andrea & Liz:

Songs and Stories for Science Learning (Plants and Seeds) Educational Guide, Grades PK-1



About the Performance

Plants and Seeds: Join Andrea & Liz to learn, through interactive stories and songs, about how seeds grow into plants, flowers, and trees. Students will act out the life cycle of a plant from seed to tree, and brainstorm the many things a seed can become. They'll also learn about caring for plants by providing rich soil, water and sun, and other tips for good stewardship of the Earth. Folk tales will add dimension about the importance of seeds and plants to several different cultures.



About the Artist

Liz Buchanan sings and plays high-energy, danceable tunes for kids and their families. As a singer-songwriter, she has recorded four CDs, receiving accolades from Parents' Choice, Creative Child Magazine and School Library Journal. She has performed and taught in the greater Boston area for more than 20 years.

Andrea Lovett is an award-winning storyteller. Her love of nature and folktales often influences the stories she chooses to tell. She believes stories and storytelling help to build strong, healthy and connected communities.

Program Learning Goals

1. Students will understand that the life cycles of creatures and plants follow a logical sequence, with a beginning, middle and end.
2. Students will learn about different types of plants that grow from seeds, and what's required for seeds to grow.
3. Students will make connections between science content and folk tales and songs from American and world cultures (STEAM).

Post-Performance Discussion Questions

1. What are the different stages in the life cycle of a plant?
2. Do humans have a life cycle? How do we change as we grow?
3. How can we help plants, flowers and trees grow up to be healthy and strong?

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Seeds

Essential Questions

1. How do plants change as they grow?
2. What is our responsibility to care for the plants and animals around us?
3. Why is it important to respect and care for the earth and living creatures?

Important Vocabulary

- *Life Cycle*: The series of changes in the life of an organism
- *Environment*: The surroundings or conditions in which a person, animal, or plant lives Earth: The planet on which we live; the world
- *Seed*: The "egg" of a plant; the part of the flower or fruit of a plant that grows into a new plant
- *ALSO*: *Seedling, roots, stem, leaf, petal, nectar, proboscis*



Sprouts

Pre-Show Activity: The Tiny Seed

Read or watch the story **The Tiny Seed** written and illustrated by Eric Carle with a grown up or friend and talk about these questions:

1. Why do you think the seeds that landed on the snowy mountain, in the ocean, and in the hot, dry desert never grew?
2. How did the tiny seed change throughout the story?



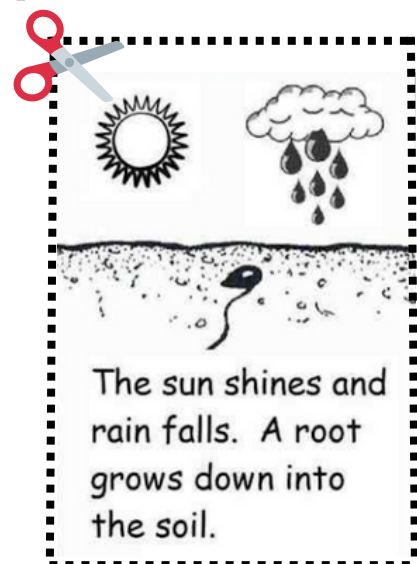
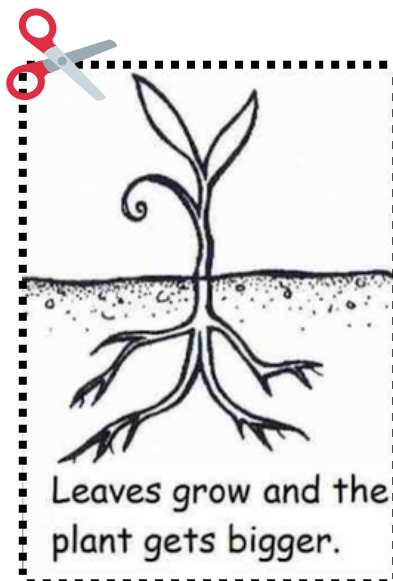
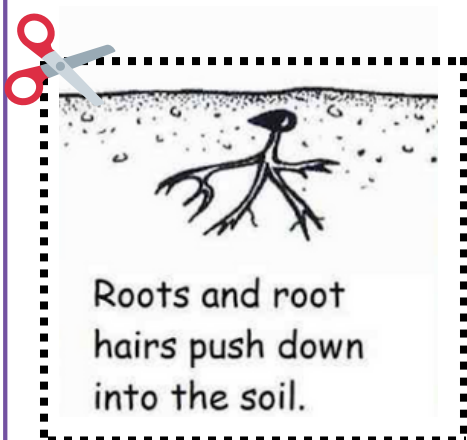
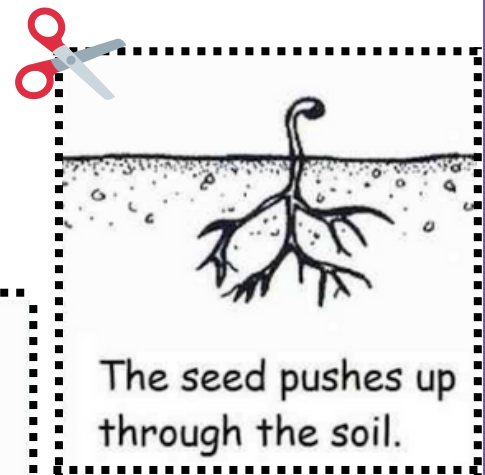
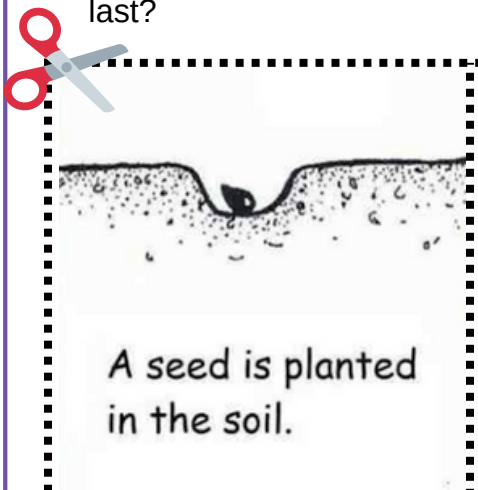
3. What did the seed need to grow into a flower?
4. Have you ever planted a seed? What kind of plant did it grow into?

Post-Show Activity: Sequencing the Life Cycle of a Plant

- Watch the video about "How Does a Seed Become a Plant?"

[Click here to watch the video "How Does a Seed Become a Plant?"](#)

- Cut out the pictures below. You can color them in if you like.
- Can you put the pictures in order? What comes first? What comes next? What comes last?



- Using your pictures, can you tell a parent, your teacher, a sibling or a friend, the story of the life cycle of a plant?
- Think about your own life cycle. How have you changed as you got older? Can you draw or write the story of your life cycle?

Curricular Connections

Music PreK-1:

Creating 1. Generate and conceptualize artistic ideas and work (PK-K.M.Cr.01)

2. Organize and develop artistic ideas and work.

a. Focus on and pursue a process or idea to completion during play and experimentation with music. (PK-K.M.Cr.02.a)

Responding 7. Perceive and analyze artistic work. (PK-K.M.R.07)

8. Interpret intent and meaning in artistic work. (PK-K.M.R.08)

Music 1-2:

Performing: 6. Convey meaning through the presentation of artistic work. (1-2.M.P.06)

Responding 9. Apply criteria to evaluate artistic work. Demonstrate active listening as an audience member. (1-2.M.R.09)

Earth & Life Science PreK-2

PreK-ESS2-1(MA). Raise questions and engage in discussions about how different types of local environments (including water) provide homes for different kinds of living things.

PreK-LS1-1(MA). Compare, using descriptions and drawings, the external body parts of animals (including humans) and plants and explain functions of some of the observable body parts.

PreK-LS1-2(MA). Explain that most animals have five senses they use to gather information about the world around them.

PreK-LS1-3(MA). Use their five senses in their exploration and play to gather information.

PreK-LS2-1(MA). Use evidence from animals and plants to define several characteristics of living things that distinguish them from non-living things.

PreK-LS2-2(MA). Using evidence from the local environment, explain how familiar plants and animals meet their needs where they live

K-LS1-1. Observe and communicate that animals (including humans) and plants need food, water, and air to survive. Animals get food from plants or other animals. Plants make their own food and need light to live and grow.

K-LS1-2(MA). Recognize that all plants and animals grow and change over time.

1-LS1-1. Use evidence to explain that (a) different animals use their body parts and senses in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water, and air, and (b) plants have roots, stems, leaves, flowers, and fruits that are used to take in water, air, and other nutrients, and produce food for the plant.