

Andrea & Anna:

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



About the Performance

Plants and Seeds: Join Andrea & Anna 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 Artists

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.

Anna Adler was raised in a family of musicians and storytellers, and received formal training in piano, voice, and trumpet. Today she delights in engaging young children and families through music.

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).

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?

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 on Earth, the planet on which we live
- **Seed:** The "egg" of a plant; the part of the flower or fruit of a plant that grows into a new plant
- **Parts of a plant:** seedling, root, stem, leaf, petal, nectar, proboscis



Seeds



Sprouts

Pre-Performance Activity: The Tiny Seed

Read or watch the story "**The Tiny Seed**" written and illustrated by Eric Carle, 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?



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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?

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

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



[Youtube: How Does a Seed Become a Plant?](#)

- Cut out the pictures on the next page. 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?



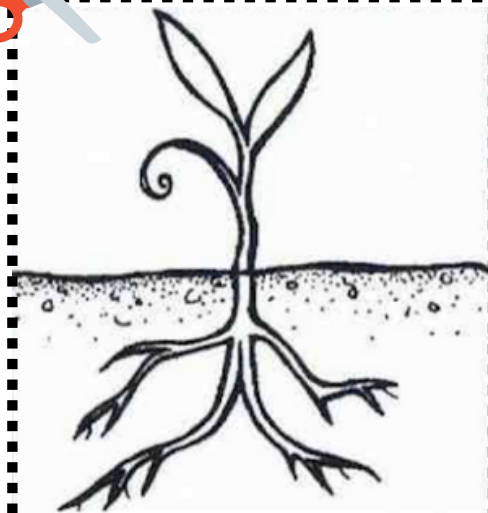
A seed is planted
in the soil.



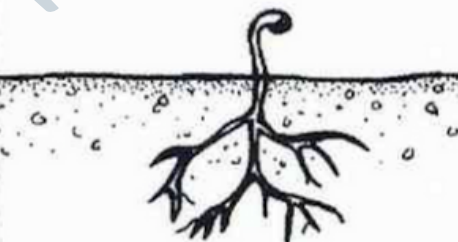
The sun shines and
rain falls. A root
grows down into
the soil.



Roots and root
hairs push down
into the soil.



Leaves grow and the
plant gets bigger.



The seed pushes up
through the soil.

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Curricular Connections

Arts Standards: Music

Creating

- Generate and conceptualize artistic ideas and work. (PK-K.M.Cr.01, 1-2.M.Cr.01)
- Organize and develop artistic ideas and work. (PK-K.M.Cr.02.a, 1-2.M.Cr.02)

Performing

- Convey meaning through the presentation of artistic work. (PK-K.M.P.06, 1-2.M.P.06)

Responding

- Perceive and analyze artistic work. (PK-K.M.R.07, 1-2.M.R.07)
- Interpret intent and meaning in artistic work. (PK-K.M.R.08, 1-2.M.R.08)
- Apply criteria to evaluate artistic work. (PK-K.M.R.09, 1-2.M.R.09)

Connecting

- Synthesize and relate knowledge and personal experiences to make art. (PK-K.M.Co.10, 1-2.M.Co.10)

English Language Arts and Literacy Anchor Standards

Speaking and Listening

- Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally. (SL.PK-12.2)
- Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric. (SL.PK-12.3)

Science and Technology/Engineering

Earth and Space Sciences

- Earth's Systems (PreK.ESS.2, K.ESS.2)
- Earth and Human Activity (PreK.ESS.3, K.ESS.3)

Life Science

- From Molecules to Organisms: Structures and Processes (PreK.LS.1, K.LS.1, 1.LS.1)
- Ecosystems: Interactions, Energy, and Dynamics (PreK.LS.2)
- Variation of Traits (PreK.LS.3)
- Heredity: Inheritance and Variation of Traits (1.LS.3)

