

A'planting we will go

This lesson is based on the book, *The Tiny Seed*, by Eric Carle. This story will be used to introduce the children to the concept that seeds change and grow into plants when conditions in the environment including temperature, light, water and soil are appropriate. Children will learn that plants produce seeds that can become new plants. Through extended activities, the children will experience first-hand the germination of seeds. They will become familiar with the parts of a plant and learn how each part works to produce a healthy plant.

A lesson plan for grade 1 English Language Arts, English Language Development, and Science

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Learning outcomes

Students will:

- understand that most plants develop from seeds.
- learn what plants need to begin and to sustain life.
- identify the parts of the plant and know how each part benefits the plant.
- experience excitement and wonder as he watches the seeds grow into plants.

Teacher planning

Time required for lesson

4 weeks

Materials/resources

- [The Tiny Seed](#) by Eric Carle
- Soil
- Gravel
- Seeds
- Two clear plastic cups per student
- Permanent markers
- Response sheet
- Observation log
- Picture box writing paper
- Assorted colors of construction and tissue paper
- Literature about seeds and plants (See supplemental resources)

Technology resources

Word Processing Program such as Microsoft Word

Pre-activities

The children will take a walking field trip around the school grounds to observe the changes occurring in the plant life during the spring season. (Earlier walks taken in the Fall and Winter would be beneficial, so that the students could easily identify changes occurring in April and May.)

Activities

1. The teacher reads the big book, *The Tiny Seed*, by Eric Carle. The students discuss the journey of a small seed as it travels through the seasons. Discussion questions might include:
 - How does the seed change?
 - What season provides the requirements for the seed to develop into a small plant?
 - What environmental conditions are necessary for the tiny seed to grow?
 - During what season does the plant grow and mature? Why? Tell what happens to the seed in the fall and winter.

After this, the teacher will list, discuss and define the following vocabulary words: seed, sun, rain, air, earth, soil, roots, stems, leaves, flowers. These words will become the weekly spelling list.

2. At the science center the learner will plant five sunflower seeds in a clear plastic cup. He will put a thin layer of gravel followed by potting soil into the cup. He will place five seeds in the cup and gently push each one into the soil, making sure that at least one seed is against the edge of the cup so that its development can easily be observed. He will add 1/2 cup of water. The learner will invert another plastic cup on top of the first cup. The child's name and date will be written on the cup with permanent marker.
3. The learner will complete a response sheet telling the steps he followed at the science center. (File attached)
4. Each cup of planted seeds will be placed on a table in front of a window where it can easily be observed. Additional cups of seeds will be prepared and placed in other environments, such as a refrigerator, a dark cabinet, or on a table in the room, but deprived of water.
5. The learner will observe his terrarium daily and date and record his observations. When plants begin to develop the learner will also sketch what he sees. (The observation log is a blank calendar with the month and days written in.)
6. When plants have grown to the top of the cup, the learner will measure the tallest plant using a piece of string. The teacher will show the learner how to hold the string next to a ruler to find out how many inches tall his plant is. Strings will be attached to a class chart for the children to observe and compare.
7. The learner will identify and name the parts of his plant: roots, stem, leaves, flower. Students will learn why each part is important to the plant. They will fold a piece of white construction paper into four equal parts. In each section they will draw and label one part of the plant's life cycle: seed, seed/roots, stem, leaves/flower.
8. The learner will observe the planted seeds that were deprived of water or placed in other environments and discuss what happened to those seeds as compared to what happened to the seeds he planted. The class will use a graphic organizer to compare how the seeds/plants deprived of water and the seeds/plants given adequate water are alike and different.
9. After the plants have grown, the learner will use a graphic organizer to assist him/her plan a recount narrative about the growth of seeds. The story will include an introductory sentence, three sentences beginning with first, next and last, and a concluding sentence telling how he feels about what happened to his seeds. These stories will be illustrated and displayed. The edited stories will be typed on a word processor and bound into a book for the classroom library.
10. The learner will decorate his plant container with permanent markers to resemble a vase. He/she will take it home as a Mother's Day gift. An original poem, or a group poem such as this one could be included:

Roses are red,

Violets are blue,

I planted these seeds

And grew them for you.

Happy Mother's Day!

Love, _____

Assessment

Teacher observation

Response sheet and observation log

Recount narrative story

Oral responses to questions during discussion

Picture showing development of the seed with parts labeled

Supplemental information

Suggested Children's Literature:

- [*Pumpkin, Pumpkin*](#) by Ruth Titherington
- [*I'm A Seed*](#) by Jean Marzollo
- [*Bear's Bargain*](#) by Frank Asch
- [*The Seasons of Arnold's Apple Tree*](#) by Gail Gibbons
- [*The Carrot Seed*](#) by Ruth Krauss
- [*The Berenstain Bears GROW-IT!*](#) by Stan & Jan Berenstain
- [*Discover the Wonder*](#) (Module A, Plants) Scott Foresman Science

Modifications

For the novice LEP student, make sure there are a lot of visuals available for a true understanding of germination.

Alternative assessments

For assessment, the LEP student could be allowed to label a diagram of the plant and/or seed with the use of a word bank.

Another assessment could be to let the novice LEP student draw the process of planting the seed through germination rather than be asked to verbally describe the process.

Critical vocabulary

Spend plenty of time helping LEP students know the following vocabulary words: Seeds, Growth, Environment, Germination

Comments

These activities can be used during center time as part of a unit on seeds and plants. Activities have been suggested that could be utilized at the following centers: science (discovery), math, library, writing, listening, spelling, art and computer. If you want to send the plants home for Mother's Day, you must

check the germination time of the seeds you select and the date for Mother's Day. Then figure out when to start these activities. Developing activities focused on a theme make it possible to integrate many areas of the curriculum, and help children see how these areas are interrelated.

North Carolina curriculum alignment

English Language Arts (2004)

Grade 1

- **Goal 3:** The learner will make connections through the use of oral language, written language, and media and technology.
 - [Objective 3.01](#): Elaborate on how information and events connect to life experiences.
- **Goal 4:** The learner will apply strategies and skills to create oral, written, and visual texts.
 - [Objective 4.01](#): Select and use new vocabulary and language structures in both speech and writing contexts (e.g., oral retelling using exclamatory phrases to accent an idea or event).

English Language Development (2005)

Grade 1

- **Goal 0:**
 - [Objective 0.01](#): Listen and respond to familiar questions, greetings, and phrases if spoken very slowly and distinctly, using one-word responses, physical actions, and other non-verbal communication.
 - [Objective 0.01](#): Listen and physically respond to familiar simple questions with modeling and prompting.
 - [Objective 0.02](#): Understand and follow one-step and two-step directions and instructions with modeling and prompting when spoken slowly and distinctly.
 - [Objective 0.02](#): Follow one-step, simple directions with modeling and prompting.
 - [Objective 0.03](#): Listen and demonstrate comprehension of oral presentations, stories, and/or familiar texts by responding to simple questions and statements
 - [Objective 0.04](#): Listen to oral presentations, stories, and/or familiar texts told or read to them and respond using physical actions or other means of non-verbal communication with modeling and prompting.

Science (2005)

Grade 1

- **Goal 1:** The learner will conduct investigations and make observations to build an understanding of the needs of living organisms.
 - [Objective 1.01](#): Investigate the needs of a variety of different plants:
 - Air.
 - Water.
 - Light.
 - Space.