



Pre-K/Kindergarten/First Grade Spring Lesson

Pre-K/K — Sunflower House
1st — Pumpkins and Sunflowers

Objective:

- 1) Students will bring literature to life by planting a garden similar to one in a story they read in class.
- 2) Students will learn that plants need sunlight and water to grow, and the basic structures of a plant.
- 3) Students will learn that different plants have different features and grow in different ways.

California State Content Standards:

I) Kindergarten

A) English/Language Arts

2.0 Reading Comprehension

Comprehension and Analysis of Grade-Level-Appropriate Text

- 2.2 Use pictures and context to make predictions about story content.
- 2.3 Connect to life experiences the information and events in texts.
- 2.4 Retell familiar stories.
- 2.5 Ask and answer questions about essential elements of a text.

3.0 Literary Response and Analysis

Narrative Analysis of Grade-Level-Appropriate Text

- 3.1 Distinguish fantasy from realistic text.

B) Math—Measurement and Geometry

1.0 Students understand the concept of time and units to measure it; they understand that objects have properties, such as length, weight, and capacity, and that comparisons may be made by referring to those properties.

- 1.1 Compare the length, weight and capacity of objects by making direct comparisons with reference objects (e.g. note which object is shorter, longer, taller, lighter, heavier, or holds more).

C) Science—Life Science

2. Different types of plants and animals inhabit the earth. As a basis for understanding this concept:

- a. Students know how to observe and describe similarities and differences in the appearance and behavior of plants and animals (e.g., seed-bearing plants, birds, fish, insects).
- b. Students know stories sometimes give plants and animals attributes they do not really have.
- c. Students know how to identify major structures of common plants and animals (e.g., stems, leaves, roots, arms, wings, legs).

2) First Grade

A) English/Language Arts

2.0 Reading Comprehension

Comprehension and Analysis of Grade-Level-Appropriate Text

- 2.2 Respond to who, what, when, where, and how questions.
- 2.3 Follow one-step written instructions.
- 2.4 Use context to resolve ambiguities about word and sentence meanings.
- 2.5 Confirm predictions about what will happen next in a text by identifying key words (i.e., signpost words).
- 2.6 Relate prior knowledge to textual information.

B) Math—Measurement and Geometry

1.0 Students use direct comparison and nonstandard units to describe the measurements of objects.

- 1.1 Compare the length, weight, and volume of two or more objects by using direct comparison or a nonstandard unit.

C) Science—Life Science

2.0 Plants and animals meet their needs in different ways. As a basis for understanding this concept:

- a. Students know different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.
- b. Students know both plants and animals need water, animals need food, and plants need light.
- c. Students know animals eat plants or other animals for food and may also use plants or even other animals for shelter and nesting.
- e. Students know roots are associated with the intake of water and soil nutrients and green leaves are associated with making food from sunlight.

Lesson Outline:

A. Lesson

- a. Read/Review the Story
- b. Introduce Sunflower and Pumpkin seeds—compare to seeds that we buy for food
- c. Discuss growing habits of Sunflowers and Pumpkins

B. Garden Rules

C. Planting Plans

D. Plant

Seeds/Supplies:

Pumpkin—Jack O’ Lantern, Jack-Be-Nimble (miniature), Lumina (white)

Sunflowers—Mammoth (8-10 feet), Autumn Beauty (5-7 feet), Sunspot (dwarf 2-4 feet)

Lesson:

This lesson is based on literature. If possible, have the teacher read the story to the class before you come to plant. Then you just review the story with the students. Reading the story and doing the planting will take longer than 30 minutes. If you read Sunflower House, you may want to plant your seeds in a design that would let children go inside a “house” as the plants grow tall.

**Also, please note: These plants grow big (sunflowers tall, pumpkins long vines along ground) so we plant very few seeds. Each child will only plant 1-2 seeds.

1) Sunflowers

- a. Mammoth Sunflower seeds look just like the seeds that you buy at the store to eat—but don’t eat these seeds because they are not clean AND don’t plant the ones you buy in the market because those seeds have been cooked so they won’t grow
- b. Some other types of sunflower seeds look different (show Autumn Beauty, which is a mix)—black, brown, smaller size
- c. Plants from these little seeds grow very TALL—taller than all grownups
- d. Sunflowers are phototropic—they turn their faces toward the sun over the course of the day
- e. Natural birdfeeders—the fully grown sunflowers are full of all the sunflower seeds. If we save those seeds, we can plant them the following year. If we leave the sunflowers and their seeds on the plants to dry, the birds and animals eat the seeds

2) Pumpkins

- a. Pumpkin seeds look the same as the ones you pull out of the pumpkin you carve at Halloween—seeds come from inside the grown pumpkins
- b. Some people cook the seeds from their pumpkin to eat—but don’t eat these because they are not clean AND don’t try to plant seeds you buy in the market because they are cooked so they won’t grow
- c. Pumpkins grow on long vines that spread across the ground and make big orange flowers, from which the pumpkins grow
- d. Pumpkin plants have big leaves—the size of your dinner plate
- e. Pumpkins take a long time to grow—we plant in spring or early summer to have pumpkins ready in time for Halloween

Planting Directions:

- 1) Make rows a foot apart for sunflowers. Plant seeds two inches apart. For Sunflower House, make one row forming three sides of a rectangle or in a circle. Sunflower House should use only Mammoth Sunflower seeds.
- 2) Plant pumpkins in two-foot wide circle, two feet from neighboring circle. Plant 6-8 seeds per circle. If desired, you may make a small mound and plant pumpkin seeds on top.
- 3) Each student plants two seeds 1 inch deep. Have students insert their finger up to first knuckle to dig hole.
- 4) DO NOT COVER UP SEEDS UNTIL ALL ARE PLANTED IN THEIR HOLES—OTHERWISE YOU WON’T KNOW WHERE THE SEEDS ARE FOR THE NEXT STUDENT.



Teacher Information



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Today your class will be planting their spring garden with sunflowers, along with pumpkins if you choose. These plantings are linked to several children's stories. Please read one or more of the following books before your planting:

- Sunflower House** by Eve Bunting
- This is the Sunflower** by Lola M. Schaefer and Donald Crews
- The Pumpkin Circle** by George Levenson

These plants grow very big (sunflowers are very tall, and pumpkins grow on long vines) and take a long time to mature. The plants will not be fully mature until after school is out for the summer. Before school gets out, the students will be able to see how fast the plants grow and how the pumpkins and sunflowers develop. Because the plants grow so fast, it is fun to visit the garden regularly and use a yardstick to measure how much they have grown in just a week. Make a data chart to chart the growth! For more fun, measure the students at the time of planting and then measure them over the course of the growing season to compare their growth rate with that of the sunflowers and pumpkins. Encourage the students to visit the plants over the summer. Remind them to leave the sunflowers and pumpkins growing in the garden so that they are there for the students to study and enjoy when the students arrive back in the fall.

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Please visit the garden regularly to watch your plants grow! We recommend bringing your class to the garden weekly to observe and measure (make a data chart!) the growth of your plants. Hold an Open House in June to talk to your students about their garden.