
TEKS K.10 Organisms and environments. The student knows that organisms resemble their parents, and have structures and processes that help them survive within their environments. The student is expected to:

- (C) identify ways that young plants resemble the parent plant; and
 - (D) observe changes that are part of a simple life cycle of a plant: seed, seedling, plant, flower, and fruit.
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Background Knowledge

Plants are living organisms. The life cycle of a plant begins when a seed is watered and begins to germinate. The seed continues to grow and becomes a seedling (young plant). At this point in the cycle, the young plant looks very much like the parent plant in much the same way a baby looks like its parents. For example, when you see a seedling, you know immediately that it will grow to be a plant, just like when we see a baby; we know it will grow to be a human adult. The baby looks like the adult human but is smaller in size. The seedling continues to grow until it reaches maturity and produces its own flower and/or fruit. The seeds that are found in the flower or fruit can be planted, watered, germinate, and begin the cycle all over again.

Essential Questions

What are the stages of the plant life cycle?
(Seed, seedling, plant, flower, fruit)

What does the word “resembles” mean?
(Looks like)

How does a seedling “resemble” its parent plant?
(The leaves might have the same shape; the color of the stem or leaves might be the same; we can tell that a sprout will grow to be a plant—the baby looks like the adult.)

How do seedlings change as they grow into a plant?
(The seedling will grow taller or longer; as an adult plant it will produce flowers and/or fruit; the leaves will get bigger; the stem will grow longer or taller.)

Where would we look on the parent plant to find the seeds, so we can grow more plants?
(The seed will be found in the flower or the fruit.)

The Life Cycle Of A Plant

Objective:

To help students memorize and remember the organized steps in a simple plant cycle.

Materials:

5 index cards

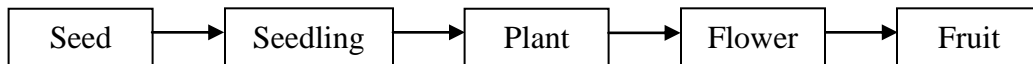
Write one of the following words on a card:

- Seed
- Seedling
- Plant
- Flower
- Fruit

How to Conduct:

Take the 5 vocabulary index cards and arrange in the correct order.

Tape them to the board or wall with an arrow drawn between each card:



Review these words before you sing and the students sing the song “The Life Cycle of a Plant”.

**Do the song again and use the actions. Have fun!

The Life Cycle Of A Plant Song

(Sing to the tune: “The Wheels of the Bus Go Round and Round.”)

The life cycle of a plant goes
Round and round, round and round, round and round (Point finger and move arm around in circle.)

The life cycle of a plant goes round and round
It starts with the seed

Use soil and water to plant the seed
Plant the seed, plant the seed (Pretend you are digging a hole and planting a seed.)
Use soil and water to plant the seed
Now we watch it grow (Take fingers and make circles around eyes like glasses.)

Soon the seed will start to sprout
Start to sprout, start to sprout (Make a loose fist with the left hand; take the right hand and push it up through the fist.)
Soon the seed will start to sprout (When the hand goes through the left hand fist, spread fingers like blooming.)
SEEDLING is its name

The seedling grows to be a plant (Squat down and slowly stand up as the verse goes along.)
Be a plant, be a plant (Stand tall; spread out arms; look up, like the plant is absorbing sunlight on leaves.)
The seedling grows to be a plant
Producing flowers and fruit

Inside the flower and fruit we find seeds
We find seeds; we find seeds (Put hands together like making a book; then turn to another student.)
Inside the flower and fruit we find seeds (Let students pretend they are picking out seeds from the flower.)
That we can plant again!

Fruits And Seeds

Objectives:

To help students identify ways that young plants resemble the parent plant.
To help students observe changes that are part of a simple life cycle of a plant.

Materials:

A child's book about the growth of a fruit plant from a seed:

Suggestions:

A Fruit is a Suitcase for Seeds Author: Jean Richards

Jack's Garden Author: Henry Cole

From Seed to Plant Author: Gail Gibbons

One Bean Author: Anne Rockwell

Examples of seeds inside the fruit (Use the actual fruit if possible/or pictures can be used.)

Suggestions of fruits to use:

Fruits with pits (Avocado, peaches, cherries, plums)

Fruits with seeds on the outside (Strawberries, blackberries)

Fruits with a clearly visible seeds inside (Apple, watermelon)

Vegetables that are actually fruits (Tomato, cucumber, pepper)

Cutting board

Knife

How to Conduct:

(Choice 1)

Have your students gather around you as you read your chosen book. The book should talk about the different type of seeds we find in fruit. The children will understand the content of the book, but by cutting open the selected fruits, you can actually deepen the learning. After reading the book tell the students that you are going to do an observation, and have the students look for themselves to actually see if each fruit has a seed.

Be sure to ask the students what will grow if you plant each seed that you found in the fruit. For example: If you have an avocado seed, what will grow if the class plants this seed in the ground? (The seed holds the secret to the plant.)

Pass the fruits around so the students can have a closer look at the seeds in the fruit. If time permits and if you have enough, let the students have a small taste of one or two fruits.

Take a seed from each type of fruit (enough for each student to have one). Glue the seed to a piece of drawing paper. Let each student draw a picture of the fruit that this seed came from. Let students color or paint their fruit picture to resemble the actual fruit.

(Choice 2)

For this activity you will need several apples. You will need enough for each student to have a slice of the fruit.

Announce that you are going to tell them a story about a little red house with no doors and no windows and a star inside.

After you have read the story to the children, discuss the placement of the seeds inside the apple. Ask the students what will grow if you plant these seeds. Pass the apple around so the students can have a closer look at the seeds in the apple. Then slice up the apples you have bought and let the children enjoy their new discovery!

The Story:

Once upon a time there was a little boy who was bored with all of his toys. He went to his mom and said, “I’m bored! What can I do?” His mother, who always knew wonderful things for little boys to do said, “You will go on a journey and find a little red house with no doors and no windows and a star inside.”

This really made the little boy wonder. Usually his mother had good ideas, but he thought this idea was pretty strange. He asked his mother, “Which way shall I go? Where do I find this red house with no doors and no windows and a star inside?” His mother said, “Go down the lane past the farmer’s house and over the hill, and then hurry back as soon as you can to tell me all about your journey.”

So, the little boy put on his cap and his jacket and started out. He had not gone very far down the lane when he came to a merry little girl dancing in the sunshine. Her cheeks were like pink blossoms and she was singing like an angel. The little boy asked her, “Do you know where I can find a little red house with no doors and no windows and a star inside?” The little girl laughed, “Ask my father, the farmer, maybe he will know.”

So, the little boy went on until he came to the big, brown barn where the farmer kept a barrel of potatoes and baskets of yellow squashes and bright orange pumpkins. The farmer was standing in the doorway looking out over his green pastures and yellow grain fields. The little boy walked up to the farmer and asked, “Do you know where I can find a little red house with no doors and no windows and a star inside?” The farmer laughed and said, “I have lived for many years and I have NEVER seen one!” He then said, “Go ask Granny, who lives at the foot of the hill. She knows how to make molasses, taffy, and popcorn balls, and red mittens. Maybe she can tell you where to find a little red house with no doors and no windows and a star inside.”

So, the little boy went on farther until he came to the Granny. She was sitting in her pretty garden of herbs and flowers. She was as wrinkled as a walnut, and her smile was like sunshine. The little boy walked up to Granny and said, “Please dear Granny, where can I find a little red house with no doors and no windows and a star inside?”

Granny was knitting a red mitten and when she heard the little boy’s question, she laughed so hard that the woolen ball of yarn rolled out of her lap and down onto the pebbly path. She said, “I would like to find that little house myself. I would be warm when the frosty night comes and the starlight would be prettier than a candle. But ask the wind that blows around us. Maybe he can show you where to find this little red house with no doors and no windows and a star inside.”

So, the little boy took off his cap and tipped it politely to the Granny and went on up the hill. He realized that he was feeling rather sad. He wondered if his mother had made a mistake. The wind was coming down the hill just as the little boy was climbing up the hill. As they met, the wind turned around and went along singing beside the boy. It whistled in his ear, pushed him, and dropped a pretty leaf into his hand. “I wonder if the wind could help me find a little red house with no doors and no windows and a star inside,” thought the boy.

The wind cannot speak in words, but it went singing ahead of the little boy until it came to an orchard. At that moment, the wind climbed up in the apple tree and shook the branches. Then the little boy climbed up the tree, and there right in front of him was a huge, rosy apple. The little boy picked the apple. It was almost more than his hands could hold. It was as red as the Sun was able to paint it, and the thick, brown stem stood up as straight as a chimney, and it had no doors and no windows. Was there a star inside?

The little boy called to the wind, “Thank you!” and the wind whistled back, “You’re welcome!” Then, the little boy ran home as fast as he could. He ran into the house and handed the apple to his mother. His mother took a knife (At this point, start cutting an apple crosswise) and cut the apple through the center. Oh, how wonderful! There, inside the apple lay a star holding brown seeds.

“It is too wonderful to eat without looking at the star, isn’t it?” the little boy said to his mother. “Yes, indeed,” answered his mother . . . “Yes, indeed!”