



GROWING THINGS



THEME BOX



Designed to meet these objectives:

- Students will listen attentively and respond to instructions.
- Students will use oral language to describe objects and experiences.
- Students will learn new words and expand vocabulary.
- Students will work together to compose stories.
- Students will compare and sort objects by various attributes.
- Students will participate in the creation and interpretation of graphs and charts.
- Students will count concrete objects.
- Students will measure length with standard units.
- Students will learn about the needs of plants.
- Students will make and record scientific observations.
- Students will develop gross and fine motor skills.

Your new Growing Things Theme Box has everything you need for comprehensive, hands-on lessons that span the curriculum. We've included a wide variety of props and manipulatives that help children discover the wonders of plants in gardens, farms, or forests! Inside this guide, you'll find ideas for dozens of involving, themed activities covering 10 cross-curricular learning areas—from math to dramatic play. We've even included a list of terrific children's books to build up your classroom library. The Growing Things Theme Box is a perfect way to capture children's attention and boost essential skills!

What's Included

- 10 growing things photo cards
- 4 parts of a plant stamps
- Ink pad
- 2 rulers
- 2 magnifiers
- Set of 11 garden tools
- 2 growing tubes and a stand
- 25 peat pellets
- 10 seed packets
- Storage tub



WARNING:

CHOKING HAZARD—Small parts.
Not for children under 3 yrs.



Language

- Read and discuss a book about trees, such as *The Giving Tree* by Shel Silverstein. Have children share why they think trees are important.
 - Use the stamps and ink pad to create a picture of a flowering plant. Review the names of each part, and then label the parts on the picture.
- Work as a class to write a letter to someone who works with plants, such as a florist, gardener, or tree surgeon. Invite the person to visit your class.
- People sometimes say that a person who takes good care of plants has a “green thumb.” Think of other skills that could be shown by a special thumb. Write a story about someone with a different color thumb. What can that person do?
- Assign children to one of five groups and assign each group a color: red, yellow/orange, green, white, and blue/purple. Challenge the groups to think of fruits and vegetables that match their colors. Then, have them take turns sharing their lists while you write the words on the board. Which color has the most items? Was any fruit or vegetable included in more than one list? (For example, grapes could be included in “red,” “green,” or “blue/purple.”)
- Point out that lilies, roses, daisies, and tulips are all flowers. Can children guess what group apples, peaches, bananas, and strawberries belong to? Continue to give examples until someone figures out that they are all fruits. Repeat with other “growing things” vocabulary such as vegetables or parts of a plant.



Art

- Make flower collages with tissue paper and white glue. Lay tissue paper petals and leaves on construction paper and paint over them with a mixture of equal parts glue and water. Layer the tissue paper to create beautiful colors.
 - Collect leaves, flowers, and other plant materials to make plant prints! Dip the materials in paint and press them onto paper to make imprints. Use the prints to make greeting cards or bookmarks.
 - Create a “Garden of Children.” Glue photos of children in the centers of large paper flowers. Attach the flowers to butcher paper to create a mural.
 - Make handprint lilies! Help children use a pencil to trace around one of their hands on construction paper and then cut out the hand shape. Curl the paper fingers around a pencil to form curving petals. Then, roll the palm into a funnel shape with the petals curling outward to form a lily; tape this flower to the end of a straw or pipe stem. Add some cutout paper leaves. Arrange several lilies in a vase for a colorful bouquet!



Sand & Water

- Use the garden tools in sand and water. Explore by digging, raking, smoothing, and pouring.
- Fill a few paper cups with sand and encourage children to plant seeds in them. Fill other cups with potting soil or peat pellets and plant them with the same types of seeds. Set all of the cups in a sunny spot and water them when the surface feels dry. Which cups dry out faster? Do children think the seeds will grow well in sand? Why or why not?



Science

- Use the magnifier to examine the seeds from different packets. Can you predict what plants they will become from the way they look?
- Place a peat pellet in each growing tube and add water. Plant seeds in the tubes and set them in the stand. Observe their growth over the next few weeks, and encourage children to keep journals with their observations. Have them measure and record the heights of the seedlings each week.
- Explain that plants need water and sunshine to grow. Put a new plant under a shoe box in which you have cut a quarter-size hole. Continue to water it when needed. What happens to the plant? Do you think it will eventually grow out of its box? Why?
- Cut an inch or two from the top of a sweet potato. Poke toothpicks into the sides and rest the toothpicks on the edge of a cup full of water so that the potato is partly underwater. Place the cup in a sunny spot and observe over the next few weeks. (The potato will begin to sprout.) Be sure to add more water as needed.
- Blow on dandelions or drop pine cone seeds and watch how these seeds move in the air. What other methods do plants use to help their seeds travel to new locations?
- Look at the thorns or spines on a cactus or rose bush. Discuss how thorns and spines help protect the plants from animals that would like to eat them.
- Is a tomato a fruit or a vegetable? It depends on who's talking! Most people call the sweet-tasting parts of plants "fruit." But when scientists say something is a fruit, they mean it is the part of any plant that has seeds inside. So, while many people would say a tomato is a vegetable, scientists say it's a fruit! Help children brainstorm other vegetables that are also fruits (cucumbers, squash, and pumpkins, for example).



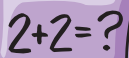
Music

- Place a few seeds in a clean yogurt container. Close the lid and shake. Try other types of seeds. Do they sound different? Which is loudest? Which do students like best?
- Have children hold brightly colored paper streamers as they dance to Peter Tchaikovsky's "Waltz of the Flowers."
- Play classical music. As children listen, invite them to pretend to "grow" from seeds to seedlings and, finally, to full-grown plants.
- Sing "Here We Go 'Round the Mulberry Bush," substituting other plant names in each verse.



Active Play

- Use the garden tools and seeds to plant a real garden outside!
- Have some fun with the sun! Invite one child to be the sun and have the other children be plants. Have the plants close their eyes and call out, "Sun, Sun! Where are you?" When the sun replies, "Here I am!" the plants walk toward the sun's voice. The first plant to touch the sun becomes the sun for the next game.
- Tape large construction paper flowers to the floor, or draw them on the playground with chalk. Prompt children to pretend to be bees and fly from flower to flower, collecting pollen and nectar.
- Play "Shade Tree Tag." In this version of tag, "It" must stay within the shadow of a large, shady tree while the other players dart in and out. The first player to be tagged becomes the new "it."

 $2+2=?$

Math

- In moderate climates, trees form a new ring inside their trunks each year. Observe a cross-section of a tree branch or trunk with the magnifier and see if you can count the rings. Then, have children draw their own cross-sections of a tree that is 3 years old. What will it look like in 2 more years?
- Mix seeds from four different seed packs together. Set out the four red flower pots and have children sort the seeds into the pots by type.
- Use the plant stamps to begin an alternating AB pattern, such as “leaf, root, leaf, root.” Challenge children to extend the pattern. Then, invite them to begin their own patterns for others to extend.
- Show children how to use the ruler to measure the height of a plant. Measure the plant on the same day each week, and record the dates and heights in a journal. After children have measured the growth of a plant over several weeks, show them how to use their data to make a line graph. Extend the graph as the plant continues to grow.
- Cut up a watermelon and give each child a slice. Have them save the seeds on paper plates. Then, help children count the seeds on each plate. How many watermelon seeds are there altogether?



Dramatic Play

- Place the garden tool set in your dramatic play area and encourage children to pretend to plant and tend a garden. Provide other props such as real or fake plants, a garden hose, straw hats, gardening gloves, rubber boots, and so on.
- Line up blocks in your block play center to make garden rows. Surround your garden with a fence.
- Act out the story of “Jack and the Beanstalk.” Pretend to plant and grow magic beans. Then, climb up the giant beanstalk!



Cooking

- Discuss dishes made from potatoes. Bring in some samples for children to enjoy, such as potato pancakes, french fries, mashed potatoes, potato chips, and potato salad.
- Make a giant fruit salad! Encourage children to contribute fruits of their choice from home.
- Line a jar with wet paper towels and plant alfalfa seeds between the glass and towels. Keep the towels moist until the seeds sprout. Watch them grow for a few days, and then eat them on sandwiches or in a garden salad.
- Cut raw, fresh vegetables into pieces or strips and serve them with ranch dressing or dip. Some good possibilities are carrots, red peppers, broccoli, cauliflower, sugar snap peas, celery, or jicama.



Library

- *Apples, How They Grow*
by Bruce McMillan
- *The Carrot Seed*
by Ruth Krauss
- *City Green*
by DyAnne DiSalvo-Ryan
- *From Seed to Plant*
by Gail Gibbons
- *The Giving Tree*
by Shel Silverstein
- *Growing Vegetable Soup*
by Lois Ehlert
- *Jack and the Beanstalk*
by Paul Galdone
- *Johnny Appleseed*
by Steven Kellogg
- *The Popcorn Book*
by Tomie de Paola
- *The Rose in My Garden*
by Arnold Lobel
- *The Tiny Seed*
by Eric Carle
- *A Tree Is Nice*
by Janice May Udry