

Dig This!

Plants for

Pre-K

Plant Ideas for
The Pre-K Classroom

Compiled by:
Mulberry Creek Pre-K Teachers
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Sandy Brannon
Becky Thomas
Sue Weed

Plants for Pre-K

Introduce these concepts in large group. Be sure to record these on chart paper or have it prepared in advance.

Concepts:

- Plants are living things that grow.
- There are many kinds of plants.
- Some plants grow from seeds.
- Some plants grow from another plant.
- Plants need air, water, sunlight, and soil to grow.
- People and animals eat some types of plants.
- The parts of a plant are the stem, roots, leaves, flower/fruit, and seeds.
- There are different sizes, colors, and shapes of plants & seeds.

Introduce new vocabulary words. Place the words on chart paper and/or on sentence strips and the place them in the writing area.

plant	stem	leaf	root
seed	vegetable	fruit	flower
garden	sprout	soil	sunlight
greenhouse	petal	weed	rake

Changes You Can Make to Your Classroom

Add a wide variety of plants around your room.

Add books about plants to your classroom display.

Add plant books & tapes to your listening area.

Add plant flannel board pieces & stories to your flannel board stories.

Add a large piece of green indoor/outdoor carpet to the floor in the reading area.

Add aprons, watering can, gardening gloves, pots & tools to your home living area.

Add a variety of plants of varying sizes to your science/math area with measuring tapes.

Add a tub of a variety of seeds to your art area.

Put potting soil in your sensory table with gardening tools. Seeds, plastic plants, beans, measuring cups, balance scales, worms and cut grass or hay may also be added.

Add a terrarium.

Add sticks, twigs & pinecones to your block area.

Add a collection of leaves to your science area.

Add silk flower and vases to your home living area.

Add small silk & foam flowers to your art area.

Add pictures of plants cut out of magazines or real photos you may have taken.

Add a variety of flowers on the science table to encourage the children to compare the color, shape, size, and smell of each flower.

Songs & Fingerplays

"The Seed Cycle"

(Sing to the tune of
"The Farmer in the Dell")

The farmer sows his seeds.
The farmer sows his seeds.
Hi-ho the dairy-o
The farmer sows his seeds.

Other verses:

The wind begins to blow...
The rain begins to fall...
The sun begins to shine...
The seeds begin to grow...
The plants grow big and tall...
The farmer cuts his corn...
He puts it in his barns...
And now the harvest is in...

Children can dramatize the parts for each verse.

"This is the Way the Garden Grows"

(Sing to the tune of "Here We Go
Round the Mulberry Bush")

This is the way the garden grows,
(slowly stretch from crouched position & stretch arms
up & out to show growing)
The garden grows, the garden grows.

This is the way the garden grows,
So early in the morning.

Other verses:

...we plant the seeds...

(pantomime scattering seeds)

...we rake the garden...

(pretend to use a rake)

...the rain comes down...

(wiggle fingers & move hands down)

...we pick the vegetables...

(bend over & make gathering motions)

...we hoe the weeds...

(pretend to use a hoe)

...we eat the vegetables...

(pretend to eat & rub stomach)

"Five Pretty Flowers"

(Use five different colors of plastic flowers and five shiny pennies for this hands-on rhyme. Put the flowers in a large vase and distribute one penny to each of five children. Explain that this is a pretend game and that no one will get to keep any of the flowers.)

Five pretty flowers in the flower store;

Five pretty flowers, who are they for?

Along came (child's name) with a penny to pay.

He bought a _____ one, (child selects a flower, identifies its color, and pays his penny)

And then he went away.

(Continue until all five flowers have been purchased. Decrease the number word each time. Children will really enjoy this game. Play it several times over the next few days so that all will have an opportunity to participate.)

"Plants"

Plants need care to help them grow

(make a fist with hand)

Just like boys and girls you know.

Good soil, water, sunshine bright.

Then watch them pop overnight.

(extend fingers from fist)

"My Garden"

This is my garden.

(extend one hand forward, palm up)

I'll rake it with care

(make raking motion on palm with other hand)

And then some flower seeds

(make planting motion with thumb & index fingers)

I'll plant in there.

The sun will shine

(make circle above head)

And the rain will fall

(let fingers flutter down to lap)

And my garden will blossom

(cup hands together, extend upward)

slowly until fingers stand straight)
And grow straight and tall.

"My Garden Grows"

I did and dig and plant some seeds.

(make digging and planting motions)

I hoe, and rake, and pull the weeds.

(make hoeing, raking, and weeding motions)

I smell the rain. I feel the sun.

(sniff and hold hands up to sun)

My garden grows. It's lots of fun.

(clap hands)

"A Tree"

Here is a tree. It bends in the breeze.

(bend body from side to side)

Here is the squirrel that hides in its leaves.

(crouch and pretend to eat nuts)

Here is the bird that builds its nest.

(make building motions)

Here is the branch on which I rest.

(climb tree and put head on hands, palms together)

Trees are nice places to be

(smile and nod head up and down)

for squirrels, birds, and even me!

(point to self)

"The Vegetable Garden"

(Sing to the tune of "Mulberry Bush")

Here we go 'round the vegetable garden,
The vegetable garden, the vegetable garden,
Here we go round the vegetable garden,
So early in the morning.

Other verses:

This is the way we pull the weeds...

This is the way we water the plants...

This is the way we eat the vegetables...

"Flowers"

(Sing to the tune of "Pop! Goes the Weasel")

All around the forest ground
There's flowers everywhere.
There's pink, yellow, and purple, too.
Here's one for you.

"Daisies"

One, two, three, four, five
(pop up fingers, one at the time)

Yellow daisies all alive.

Here they are all in a row.

(point to fingers standing)

The sun and the rain will help them grow.

(make a circle with fingers,
flutter fingers for rain)

"Flower Play"

If I were a little flower

Sleeping underneath the ground,

(curl up)

I'd raise my head and grow and grow

(raise head and begin to grow)

And stretch my arms and grow and grow

(stretch arms)

And nod my head and say,

(nod head)

"I'm glad to see you all today."

"A Little Seed"

(Sing to the tune of "I'm a Little Teapot")

Here's a little seed in the dark, dark ground.

Out comes the warm sun, yellow and round.

Down comes the rain, wet and slow.

Up comes the little seed, grow, grow, grow!

"Seeds"

Some little seeds have parachutes

To carry them around

(cup hand downward)

The wind blows them swish, swish, swish.

(flip fingers outward from parachute)

Then gently lays them on the ground.

(let hand gently float down and rest on lap)

"Relaxing Flowers"

Five little flowers standing in the sun

(hold up five fingers)

See their heads nodding, bowing one by one?

(bend fingers several times)
Down, down, down comes the gentle rain
(raise hands, wiggle fingers, and
lower arms to simulate falling rain)
And the five little flowers lift their heads up again!
(hold up five fingers)

"How It Happens"

A muddy hump,
(make a fist using both hands)
A small green lump,
(poke up thumbs together as one)
Two leaves and then
Two leaves again
(raise forefingers of each hand
from fist, then middle fingers)
And shooting up, a stem and cup.
(put elbows, forearms, and hands
together, fingers slightly curved)
One last shower,
(rain movements with spread arms and fingers)
Then a flower.
(elbows, forearms together with
hands wide apart, palms up)

"Little Flowers"

The Sun comes out and shines so bright
(join hands over head in circle)
Then we have a shower.

(wiggle fingers coming down)
The little bud pushes with all its might
(one hand in fist; other hand clasped over,
move hands up slowly)
And soon we have a flower.
(join thumbs and spread fingers for flower)

Mr. Carrot

Nice Mr. Carrot
Makes curly hair.
(hand on head)
His head grows underneath the ground,
(bob head)
And early in the morning
I find him in his bed
(close eyes, lay head on hands)
And give his feet a great big pull
(stretch legs out)
And out comes his head.

Science

Watch Seeds Grow Two identical plastic transparent plates and blotting paper are needed for this activity. Moisten the blotting paper. Then lay the wet paper on one of the plates. On the top of the paper plate place various seeds - corn, peas, squash, beans, etc. Place the other plate over the seeds to serve as a cover. Tie the plates together tightly. Stand the plate on the edge in a pan containing $\frac{1}{2}$ inch water. Watch the seeds sprout and grow.

Color Celery Discuss how a stem holds up the plant's leaves and flowers and how tubes in the stems carry water and food to the rest of the plant. Pass around several cut pieces of celery stalks. Can the children see the "tubes"? In clear containers place several celery stalks with leaves. In each container add 3 inches of water and drops of different colors of food coloring. The leaves of the celery should turn colors in a few hours. Try splitting a celery stalk in half, but do not split the stalk all the way up to the top. Put one half of the stalk in red water, and the other in blue water. Watch what happens to the leaves.

Thirsty Plants Try placing a collection of plants/plant parts in colored water. Try carrots (with the tip cut off), broccoli, white mums & carnations. Let the plants stand overnight and observe them in the morning. Slice open the carrots, broccoli, and celery. Can the children

see where the colored water was carried up the plant to its leaves or flowers?

Sunlight Experiment Place seeds in two jars with a half-inch of soil. Place one jar in a dark place such as a closet or cupboard and avoid watering it. Keep the other jar in a sunny area and water it frequently. Which one grew? Why?

Growing Bean Plants Each child can grow a bean plant. Place a bean on a folded damp paper towel in a zip-lock sandwich bag. Seal the bag and hang near sunlight. Also plant a bean in a small paper cup/milk carton or planting cup.

Beans Soak dry navy beans in a jar of water overnight. The next day compare soaked beans with dry beans. Note the differences in texture and color. Open some bean seeds that were soaked. A tiny plant should be inside the seed. These can be placed under a microscope for closer observation.

Feely Box In the feely box, place different parts of a plant such as root, stem, leaves, flowers, fruit, and buds. The children can feel and verbally identify the part of the plant before looking at it.

Tasting Plants Arrange a display of edible plant parts such as the following: seeds (popcorn, peanuts, sunflowers and pumpkin seeds); roots (carrots, radishes, cooked beets); stems (celery, asparagus);

leaves (lettuce, spinach); flowers (broccoli, cauliflower); and fruits (apples, bananas, grapes). Draw a large simple diagram of a plant. Review the names and locations of the different parts: roots, stems, leaves, flowers, and fruits. Hold up one of the displayed items and ask the children which part of the plant they think it is. Continue until you have discussed one of each of the plant parts. Serve the plants for a snack. Encourage the children to smell before they taste. Encourage the children to comment on the items they are eating. ("I ate a seed." or "I ate a root.")
Note: Children will enjoy their snack more if you offer salad dressing dips or peanut butter to spread on celery, etc. Extension: Conduct a "before and after" taste test. Compare grapes/raisins, plums/prunes, strawberries/jam, peanuts/peanut butter, apples/applesauce, etc.

Root a Vegetable Place a potato or carrot in a jar, root end down so that one-third is covered by water. A potato can be held upright by inserting toothpicks or nails at three points. The children can water as needed. Roots should grow out from the bottom and shoots from the top. Then, plant the root in soil for an attractive plant. This can also be done with a sweet potato, beet, and pineapple.

Budding Branches Place a branch that has buds ready to bloom in a jar of water on the science table. Let the

children observe the buds bloom. Notice that after all the stored food of the plant is used, the plant will die.

How Does Your Garden Grow? Ask your class what they need to help them grow. Guide their thinking with questions that include food, rest, air, water, exercise, sunlight, etc. Tell them that they are going to do an experiment to see what seeds and plants need to grow. Gather five small plastic pots or cups, soil, 15 dried lima beans, and water. Let several children help you mix the soil. Have others carefully spoon some into each pot about two-thirds of the way up. One group can poke three holes into the soil of each pot and put the beans in the holes. Another group can spoon some soil over the tops. Put two of the pots on a sunny window ledge. Have a helper give one of the pots some water each day. Put the third pot in the window, but put a large clear container over it so that it gets no air. Give the fourth and fifth pots some water, but place one in the refrigerator and one in a closet or cabinet. Which seeds do the children think will grow best? Why? Check the seeds each day for a week, watering all but one of the pots on the windowsill. What do seeds need to grow?

What's That Smell? Show the children a selection of plants that have distinctive smells, such as mint leaves, garlic cloves, orange or lemon peel, and cinnamon sticks. Try to have five or six different smells. Let the

children sniff each one. Discuss the part of the plant each comes from and how people use plants in cooking. Put some of each item into two different film cans or two other small plastic containers with holes punched in the top, so that you can have a pair of each different smell. Put the game at the center and challenge small groups of children to match the smells. Note: Instruct the children not to open the lids. Instead, make the game self-correcting by putting the same color of sticker dots on the bottoms of the matching pairs.

Alive or Not Plants are alive. They eat, breathe, and grow. Cut out from magazines pictures of things that are alive, such as plants, animals, and people. Cut out pictures of things that are not alive, such as appliances, clothing, vehicles, and stuffed animals. Mount both sets of pictures on tag board and cover them with clear contact paper. Discuss the differences between things that are alive and things that are not. Hold up a picture. Let the class decide whether it shows something alive or not alive.

Math Development

Seed Sorting Help children develop observation and matching skills with this small group game. Give each child in a group an identical cup of seeds and a paper plate. Three or four each of pumpkin, sunflower, watermelon, pea, lima, kidney, or pinto beans; nuts; and corn are good for young children to examine. Discuss how seeds come from the flowers or fruits of plants and can grow into new plants. Have the children look at the seeds. Guide their observations by asking questions about the seeds' sizes, colors, shapes, numbers, textures, etc. Give each child an egg carton to sort his seed collection in. Extension: Cut out the front of seed packets and glue them onto index cards. Glue a few seeds from the packet to the back of the index cards to make the game self-correcting. Place the rest of the seeds in small plastic bags. Have the students match the seed packet pictures to the seeds in the bags. They can turn the cards over to check their answers.

Charting Plant Growth The children can observe the growth of a small plant by keeping a chart of its growth. Record the date of the observation and the height. For convenience, place the chart near the plant table.

Flowerpot Match Game Construct flowerpots. The number constructed will depend upon the

developmental appropriateness. Write a numeral on each, beginning with the numeral one. Then make the same number of flowers, varying from one petal to the total number of flowerpots constructed. The children match the flowerpot to the flower with the same number of petals.

Counting and Classifying Seeds Place a variety of seeds on a table. Encourage the children to count and classify them into groups. To assist in counting and classifying, an egg carton with each section given a number from 1 to 12 may be helpful. Encourage the children to observe the numeral and place a corresponding number of seeds in each section.

Plant Growth Seriation Construct pictures of plants through stages of growth. Begin with a seed, and then follow it by the seed sprouting. The third picture should be the stem erupting from the soil surface. Next, a stem with leaves can be constructed. Finally, flowers can be added to the last picture. This could also be made into a bulletin board.

Seed Match Collect a variety of seeds such as corn, pumpkin, orange, apple, lima bean, watermelon, pea, and peach. Cut several rectangles out of white tag board. On the top half of each rectangle glue one of the seed types you have collected. Encourage the children to sort the seeds, matching them to those seeds glued on the individual cards.

Dried Bean Dominoes Gather 26 index cards, a package of dried beans, and glue. Orient each card horizontally and draw a vertical line to divide the card into two equal parts, like a domino. Glue the beans on the card to make the domino "dots." Each half can have zero to six dots, and no two cards should have the same combination of numbers. When the glue has dried, allow the children to use the cards to play dominoes. A pair of students will turn the domino cards facedown on the table and each will draw seven cards. Students take turns placing dominoes on the playing table so that ends of adjacent dominoes have matching sets. A domino with the same number of beans on both ends can be played crosswise to provide two open ends where there was only one before. When a student does not have a domino to play, he must draw one from the remaining facedown pile. The first player to place all their dominoes is the winner.

How Many Beans? Place a handful of mixed, dried beans into a clear jar. Encourage the children to estimate how many dried beans are in the jar. Record each child's guess on the chart paper. After everyone has made a guess, have the students help you count the dried beans. Find out which person's guess was closest to the actual number of beans in the jar. Try this with different types and sizes of seeds and beans.

Social Studies

Plant Walk Walk around the schoolyard or neighborhood and try to identify as many plants as you can.

Play Yard Plants Make a map of the play yard. The children can collect a part of each plant located in the playground. The plant samples can be mounted on the map.

Planting Trees Plant a tree on your playground. Discuss the care needed for trees.

Family Tree Make a Family Tree by mounting a bunch of branches in a pail of dirt. Each child can bring in a family picture to be placed on a leaf shape and hung on the tree branches.

Useful Plants Children will be surprised at the variety of different things that come from plants. Display and discuss pictures of items that come from plants, or display some of the objects themselves. Some suggestions are books; newspapers; furniture; cotton clothing and bedding; cereal, crackers, and cookie boxes; containers of tea coffee and hot chocolate; chewing gum; bag of popcorn; and assorted fruits and vegetables. Include a milk carton or egg container. Discuss how those products come from animals but that the animals eat plants (grass and

seeds). Challenge your students to answer riddles based on the objects that you display. For example:

- I come in different sizes, shapes, and colors. I tell a story. (book)
- I am hard and smooth. You sit on me. (chair)
- I am long and orange. I am a root you eat. (carrot)
- I don't always taste good, but the doctors say I will make you better. (medicine)
- I am soft and come in lots of colors. Sometimes I have buttons. (shirt)

Alike & Different The world has a huge variety of plant life. Cut out a variety of pictures of plants from around the world from nature magazines, seed and plant catalogs, and packets. Mount them on tag board and cover them with clear contact paper. Show the children two pictures. Ask How are these the same? How are they different? Help them focus on such attributes as size, shape, color, flowering/not flowering, etc.

Mr. McGregor's Garden After reading the story, *The Tale of Peter Rabbit*, draw a map of Mr. Mc Gregor's Garden. Use the book as a guide and map out Peter's route. *Make Rabbit Food Salad.*

6 cups of lettuce

2 tomatoes, chopped

2 stalks of celery, chopped

2 carrots, peeled and sliced
 $\frac{1}{2}$ cup frozen peas, defrosted
salad dressing

Wash and dry all the fresh vegetables. Tear lettuce in bite-size pieces and place in a salad bowl. Add chopped tomatoes, chopped celery, peeled, sliced carrots, and $\frac{1}{2}$ cup frozen peas, defrosted. Toss with your favorite salad dressing.

Physical Development

Leaf Jumping Cut out eight large leaves from tag board. Arrange the leaves in a pattern on the floor. Encourage the children to jump from one leaf to another. This game could also be played outdoors by drawing the leaves on the sidewalk with chalk.

Flower Hopscotch Design a hopscotch in the form of a flower. Use chalk on a sidewalk outdoors or masking tape can be used indoors to make the form.

Vegetable, Vegetable, Plant Play "Vegetable, Vegetable, Plant" as a variation of "Duck, Duck, Goose."

Raking and Hoeing Provide the children with hoes and rakes to pretend to the play yard.

A-Maze-ing Plants Children can practice small motor skills and eye-hand coordination with these reusable wipe-off games. Draw simple outlines of plants on tag board. Include the roots, stems, and flowers. Laminate them or cover them with clear contact paper. Introduce them to your students after a discussion and demonstration of how water is drawn up through a plant's roots and travels through its stem to the flower. Provide children with crayons and tissues. Encourage them to trace the path the water takes from the roots up the stem to the flower. When they have done it, direct them to erase their path so another child can try it.

Hide the Flower Choose one child to look for the flower. Ask them to cover their eyes. Ask another child to hide a flower. After the flower is hidden and the child returns to the group, instruct the first child to uncover their eyes and find the flower. Clues can be provided. For example, if the child approaches the area where the flower is hidden, the remainder of the children can clap their hands.

Huckle Buckle Bean Stalk A small object such as a plastic flower or acorn may be used for hiding. All the players cover their eyes, except the one who hides the object. After it is hidden, the players stand up and begin to look for it. When one locates it, they don't let others know the placement. Instead they quietly take a seat saying "Huckle Buckle Bean Stalk." The game continues until all players have located the object. The first child to find the object usually hides it the next time.

Scoop the Beans Relay Race Each team will need a teaspoon, beans, and an empty container such as a quart or pint jar. Place the empty container on a line about 20 feet from the starting line. At a signal, the first person on each team scoops some beans into the spoon and runs to the empty container to deposit them. The first player returns to the team and hands the spoon to the next player who repeats the process. Continue until all the players have had a turn or the jar

is full. The team with the most in the jar or to fill it first wins. Use peanuts, lima beans, or nuts to vary the game.

Social Emotional Development

Grow and Freeze Dance Play some slow quiet music for your students and let them pretend to be seeds sprouting, stretching and growing. Plants stop growing when there is a "freeze." Explain to the children that when the music stops it means that the sun no longer shines and the gentle rain has stopped and there is a freeze. They must stop growing and try to stand absolutely still. When the soft music begins again, they can continue to grow. Enhance self-esteem by praising all efforts to freeze when the music stops, and by not eliminating any students who are having difficulty maintaining the positions they are in.

Fill and Guess After showing and discussing several kinds of fruits or vegetables with children, place the fruits or vegetables in a bag. Individually let children reach in and touch one item. See if they can guess what it is before pulling it out of the bag. Some children may also be able to describe the item. Build confidence by encourages each student to take their time and really focus on what they feel and what they have learn and know about plants.

Creative Expression

Arts and Crafts:

Make a Mural Your students can use crayon rubbings to transform an old white or pastel-colored sheet or large piece of lightweight fabric into a mural or tablecloth for special class events. Give each child a small paper bag to take on a collecting walk in the neighborhood of your classroom. Direct children to pick up things such as leaves, twigs, weeds, bits of bark, seedpods, and flowers. Let the children share their discoveries at circle time. Over the next week, work with two children at a time to make rubbings. One child helps hold the section of cloth snugly over the item to be rubbed while the other uses the side of a peeled jumbo crayon to rub over the object, transferring its pattern to the material. After the first child has rubbed his "finds" from the collecting walk, let him switch places with the other child and hold the fabric down while the other child makes a rubbing. When all the children have had a turn, display the mural and see if the children can identify the objects represented by the rubbings.

Leaf Prints The leaves of a plant breathe and make food for the plant. Collect healthy green leaves that have interesting shapes and prominent vein patterns. Be sure to have at least one leaf for every two children in case the leaves tear. Examine the leaves with the

children. Compare their colors, shapes, and sizes and the number of lobes. Point out the veins that carry water through the leaf. Use a magnifying glass to view the special pores or holes in the leaf through which the plant breathes. Give children lumps of self-hardening clay. Show them how to pat the clay down and then use a rolling pin to flatten it out to a $\frac{1}{4}$ inch thickness. Demonstrate how to place the leaf on the center of the flattened clay and then use the rolling pin to go over it several times to flatten and press the leaf into the clay. Direct the children to remove the leaves gently to discover the patterns the leaves have left. Let the prints dry and harden. Have the children paint their prints with a mixture of white glue and water to add a protective gloss.

Plant Collages You can help heighten children's sensory awareness by giving them a chance to touch different sizes, shapes, and textures of plant materials. Provide a variety of plant parts such as seedpods, seeds, leaves, pine needles, twigs, bits of bark, weeds, grasses, small berries, and flowers for use in making collages. Encourage the children to touch and talk about the different parts. Then ask the children: Are they seeds, stems, roots, or flowers? Which are rough? Which are smooth? Which are shiny? Which are dull? Which are hard? Which are soft? Give the children a strong base, such as a piece of tag board or box cardboard and squeeze bottles of glue. Have

students creatively arrange some of the materials on the bas and glue them down.

Trunks and Leaves Plants have stems to hold them up. Trees have the largest stems. Show your students pictures of different plants and see if they can identify the stems. Tell them that they are going to use their arms to make tree trunks and branches. Help them paint their palms and up their arms halfway to the elbow with brown paint. Then have them carefully press their arms and hands, with fingers spread, on a piece of construction paper. When the pictures have dried, provide the children with small squares of tissue paper in the colors of the season to wad up, dip in glue, and add to the branches to make leaves on their own personal tree. Note: This is a messy project! Some children may not wish to paint their hands and arms. Trace the arms and hands of those children on brown construction paper and cut them out, and let the children glue them on the construction paper.

Grass Hair Save $\frac{1}{2}$ pint milk cartons. The children can decorate the outside of the carton like a face. Place soil in the cartons and add grass seeds. After approximately 7 days the grass will start to grow, and it will look like hair. If the grass becomes too long, have the child give it a haircut.

Seed Pictures Supply the children with paper, paste or glue, and various kinds of seeds. Included may be

grass, beans, and unpopped popcorn kernels. The children can express their own creativity through self-created designs.

Nature Tree Cut a branch off a tree and place in a pail of plaster of Paris. The children can decorate the tree with a ribbon and different forms of plant life that they have collected or made. Included may be flowers, plants, fruits, vegetables, and seeds.

Easel Ideas Cut easel paper into different shapes such as leaves, flowers, flowerpots, fruits, and vegetables.

Egg Carton Flowers Use egg cartons and pipe cleaners to make flowers. To make the flowers stand up, place a pipe cleaner into the egg carton as well as a Styrofoam block. Muffin tin liners can also be used.

Hand and Foot Flowers Create a flower by using the child's hands and feet. Trace and cut two left and right hands and one set of left and right feet. Put one set of hands together to form the top of the flower and the other set (facing down) to form the bottom side. Add a circle to the middle (add a picture of the child for a nice touch). Cut a stem from green paper and add the green feet, as leaves. This makes a cute Mother's Day idea. Mount on white paper.

Dramatic Play:

Greenhouse Provide materials for a greenhouse. Include window space, pots, soil, water, watering cans, seeds, plants, posters, work aprons, garden gloves, a terrarium, and seed packages to mount on sticks.

Jack and the Beanstalk Act out the story, *Jack and the Beanstalk*. The children can dramatize a beanstalk growing.

Vegetable-Fruit Stand Set up a fruit and vegetable stand by displaying plastic fruits and vegetables. Set up a shopping area with aprons, market baskets or bags, carts, cash registers, and play money. Provide a balance scale for children to weigh the produce. The students can take turns being the owner and the shopper.

Garden Planting Plant a small garden outdoors. Provide seeds, watering cans, garden tools, gloves, and garden hats.

Garden Aprons, small garden tools, a tin of soil, seeds, watering cans, pots, and vases can all be provided. Pictures of flowers with names on them can be hung in the classroom.

Gardener Gather materials for a gardener prop box. Include gloves, seed packets, sun hat, hoe, stakes for marking, watering cans, etc. Students can pretend to

plant and grow seeds. Provide seed catalogs and order blanks for children to choose seeds to order.

Flower Shop In the dramatic play area, set up a flower shop complete with plastic flowers, boxes, containers, watering cans, misting bottle, and cash register. Artificial corsages would also be a fun addition. Add aprons, money, and sacks to encourage play.

Flower Arranging Artificial flowers and containers can be placed in the dramatic play area. The children can make centerpieces for the lunch table. Also, a centerpiece can be made for the science table, the lobby, and the secretary, director or principal.

Language & Literacy Development

Planting a Rainbow by: Lois Ehlert Read the story to your class, pointing out the growth both above and below the ground in each picture. Give each child a piece of construction paper on which you have drawn a horizontal brown line, and several large seeds such as pumpkin, sunflower, corn and lima beans seeds. Direct the children to glue one of each of the seeds below the brown line. Let the glue dry. When it has dried, provide the children with a variety of colored markers. Encourage them to draw a plant growing up from each seed and some roots growing down from each seed. Let those who wish to do so name their plants. Write the names next to each specimen.

A Tree is Nice by: Janice May Udry After reading the story, give children an assortment of magazines, including some nature magazines with pictures of animals and birds in them. Direct the children to cut out one picture of something they like or is special to them, such as a dog, a mommy or daddy, a baby, a truck, or a stuffed animal. Have them glue it on a piece of paper. Encourage them to dictate their story of why "a (mommy) is nice." Read the stories aloud and collect them in *A Book of Nice Things*.

The Carrot Seed by: Ruth Krauss After reading the story, make a *Great Big Enormous Carrot Book* with your class. Give each child a piece of orange

construction paper with a carrot shape traced on it. Direct them to cut it out and glue it on a piece of paper. Provide several carrots with the green leaf tops still on them. Then let your children use green markers to add leaves to their carrot pictures. Ask them to tell you what they think the little boy did with the great big enormous carrot. Write down their responses on their drawings. Collect them in a book and add a cover that has a large carrot with all the children's names on it. Read the book to the class and place it in you class library.

The Reason for a Flower by: Ruth Heller Beautiful pictures and a rhyming text provide information on plant characteristics and growth, and human and animal dependence on them. After reading the story, give children assorted plant parts such as leaves, stems, roots, branches, and flowers cut from construction paper, wrapping paper, or wall paper books. Let them glue the parts together on pieces of construction paper to create their own new kinds of flowers or plants.

Feltboard Fun Construct felt pieces representing the stages of flower's growth. Include a bulb, seed, cuttings, root, stem, leaves, and flower. During group time, review the name and purpose of each part with the children. The children can take turns coming up to the flannel board and adding the pieces. Work together to tell the story of the growing plants. After

group time, the felt pieces should be left out so the children can reconstruct the growth during self-selected activity period.

The Big Turnip First tell the story of *The Big Turnip*. Then pass out an identifying piece of clothing for each character. Hats work well for people and collars or signs for the animals. Retell the story, letting the children act the story out. Use as many characters as you have children. This would be a good outdoors activity.

Class Language Experience Charts

- * Make a KWL chart about plants.
- * Label pictures from magazines of plants, flowers or gardens with description words.
- * Make a class graph of student's favorite flowers between roses, daisies, carnations etc.
- * Make a class list of flowers, plants, and trees found around the school.
- * Make a class chart comparing what we need and what plants need to live.
- * Brainstorm a list of how people use plants.
- * Make a list of the different plants we eat.

Flower Shaped Matching Cards Use die cuts of a flower to make 52 cards. Write uppercase letters on 26 and lowercase letters on another 26. Laminate the cards. Show the cards to the children and explain that each uppercase letter card has a lowercase letter card

to match it. Give each child a chance to make a pair of matching cards. As they match the cards, have the children name the letters. After the activity, make the cards available for use during work time.

From Seeds to Salads At group time, tell the children you would like them to think about how salads are made. Explain that you want the class to work as a group to create a detailed list of the steps that occur in the creation of a salad. Encourage the children to begin the list with a step that includes the planting or growing of the ingredients. Their steps should detail how the ingredients reach the food preparer. The last step of the list should be the actual making of the salad. As the children dictate all of the steps, write them on chart paper.

Literature

The Gigantic Turnip by: Aleksei Tolstoy

The Gardener by: Sarah Stewart

Mucha! Mucha! Mucha! By: Candace Fleming

Planting a Rainbow by: Lois Ehlert

The Magical Garden of Claude Monet by: Laurence Anholt

Green Angel by: Alice Hoffman

How Groundhog's Garden Grew by: Lynne Cherry

Jack's Garden by: Henry Cole

Masiy's Garden by: Lucy Cousins

Whose Garden Is It? By: Mary Ann Hoberman

The Carrot Seed by: Ruth Krauss

Growing Vegetable Solup by: Lois Ehlert

Flower Garden by Eve Bunting

Five Sweet Strawberries by: Megan E. Bryant

Carlos and the Squash Plant by Jan Romero Stevens

How Does Your Garden Grow by Frances Ann Ladd

My Father's Hands by: Joanne Ryder

The Ugly Vegetables by: Grace Lin

Inch by Inch: The Garden Song by: David Mallett

Mrs. Spitzer's Garden by: Edith Pattou

City Green by: DyAnne DiSalvo-Ryan

Buddha in the Garden by: Dave Bouchard

The Rose in My Garden by: Arnold Lobel

Pumpkin Pumpkin by: Jeanne Titherington

Blue's Clues Ready Set Grow by: Alice Wilder
Our Community Garden by: Barbara Pollak
The Summer My Father Was Ten by Pat Brisson
Weslandia by: Paul Fleischman
Berenstain Bears Grow-It! Mother Nature Has Such a Green Thumb! By: Stan Berenstain
It's Pumpkin Time! By: Zoe Hall
A Gardener's Alphabet by: Mary Azarian
Tiny Green Thumbs by: C.Z. Guest
Max Loves Sunflowers by: Ken Wilson-Max
Eddie's Garden and How to Make Things Grow by: Sarah Garland
Inch by Inch by: David Mallett
Dorothy's Garden by: Bob Berry
Dinosaur Garden by: Liza Donnelly
Where's Petunia by: Ellen Jean Diederich
Good Night, Garden Gnome by Jamichael Henterly
Pooh's Pumpkin by: Isabel Gaines
Red Are the Apples by: Marc Harshman
Flora's Surprise? by: Debi Gliori
Princess Chamomile's Garden by: Hiawyn Oram
Fran's Flower by: Lisa Bruce
Corduroy's Garden by: Alison Inches
Grandpa's Garden by: Shea Darian
Harriet and the Garden by: Nancy L. Carlson
The Wind's Garden by: Bethany Roberts
Pumpkin Time by: Kathleen Weidner Zoehfeld
The Garden That We Grew by: Joan Holub

Snarly Sally's Garden of ABC's by: Barbara Briggs
In My Garden: A Counting Book by: Ward Schumaker
The Surprise Garden by: Zoe Hall
Oliver's Vegetables by: Vivian French
The Plant That Kept on Growing by: Barbara Brenner
Priscilla's Patch by: Marian F. Nelson
Kenny's Window by: Maurice Sendak
Bud by: Kevin O'Malley
This Is Your Garden by: Maggie Smith
Super Salads (Look, Learn & Do) by: Mark Icanberry
My First Garden by: Tomek Bogacki
Judy's Flower Bed by: Edith Kunhardt Davis
Good Job, Oliver! by: Laurel Molk
Jody's Beans by: Malachy Doyle
Ann Plants A Garden by: Susan Blackaby
Scarlette Beane by: Karen Wallace
In the Garden Little Nugget Book
Teddybear's Garden by: Dorothea King
Let's Make a Garden by: Tamara Awad Lobe
Harvest by: Kris Waldherr
The Trouble with Tomatoes by: Daniel Hedlunh
Messy Bessy's Garden by: Patricia McKissack
Caillou, In the Garden by: Marion Johnson
The Little Squash Seed by: Gayla Donwdy Seale
Once Upon a Flower by: Dana Phillips
What's This? by: Caroline Mockford
The Garden is Open by: Pamela Pease

Good Grief! Gardening is Hard Work! by: Charles M. Schulz

The Giant's Garden by: Cindy Leaney

This Year We Put a Garden In by: Elayne Schulman

Round & Round the Garden by: Kate Burns

Lulu Crow's Garden by: Lizi Boyd

Tops & Bottoms by: Janet Stevens

Cooking Experiences

Vegetable-Tasting Party (See Science: Tasting Plants) Prepare raw vegetables for a tasting party. Discuss the color, texture, and flavor of each vegetable.

Sprouts Provide each interested child with a small jar. Fill the bottom with alfalfa seeds. Fill the jar with warm water and cover with cheesecloth and a rubber band. Each day rinse and fill the jar with fresh warm water. In three or four days the seeds will sprout. The sprouts may be used on sandwiches or salads at lunchtime.

Latkes (Potato Pancakes)

2 potatoes, peeled and grated

1 egg slightly beaten

$\frac{1}{4}$ cup flour

1 teaspoon salt

cooking oil

Mix the ingredients in a bowl. Drop the mixture by tablespoons into hot oil in an electric skillet. Brown on both sides. Drain on paper towels.

Ground Nut Soup (Nigeria)

1 large tomato

1 large potato

1 onion

2 cups of water

1 beef boullion cube

1 cup shelled, unsalted roasted peanuts

$\frac{1}{2}$ cup milk

2 tablespoons rice

Peel potato and onion. Dice potato, tomato, and onion.

Place in saucepan with the water and boullion cube.

Boil, covered, for 30 minutes. Chop and add the peanuts, milk, and rice to the boiling mixture. Stir

Lower heat and simmer 30 minutes. Serves 6 or 7.

Toasted Pumpkin Seeds After reading the book Pumpkin, Pumpking by Jeanne Titherington, make toasted pumpkin seeds.

1 large pumpkin

$\frac{1}{4}$ cup oil

salt

Cut the top off a large pumpkin. Scoop out the seeds.

Wash the seeds. Dry them overnight on paper towels.

Heat oil in a frying pan. Fry seeds until golden. Drain seeds on paper towels. Sprinkle with salt and eat.

Sugar Pop Snack After reading The Popcorn Book by Tomie dePaola, make this easy taste treat.

1 tablespoon sugar

$\frac{1}{8}$ teaspoon cinnamon

$\frac{1}{8}$ teaspoon nutmeg

2 tablespoons butter

4 cups popped corn

Combine sugar, cinnamon, and nutmeg in a small bowl. Melt butter in a small saucepan. Pour melted butter over 4 cups popped corn. Sprinkle the sugar mixture over the popcorn. Mix well.

Mud After reading the book The Carrot Seed by Ruth Krauss, plant seeds in this delicious "mud" and watch student gardeners dig in!

1 6oz package instant chocolate pudding
3 cups cold milk
6 whole graham crackers
"seeds" (peanuts, M&M's, sunflower seeds)
6 gummy worms

Finely crush graham crackers in a large zip lock bag. Put chocolate pudding and milk in a jar. Shake for 2 minutes and pour in 6 cups. Stir in crushed graham crackers. Dig holes for "seeds" and gummy worms.

Fruit Candy Some fruits start with a flower. Discuss which of the following fruits begin with a flower from the ingredients below.

1 pound dried figs
1 pound dried apricots
 $\frac{1}{2}$ pound dates
2 cups walnuts
 $\frac{1}{2}$ cup raisins
 $\frac{1}{2}$ cup coarsely chopped walnuts

Put fruits and 2 cups of walnuts through a food grinder. Mix in the $\frac{1}{2}$ cup of chopped walnuts and press into a buttered 9-inch x 13-inch pan. Chill & enjoy!

China—Egg Flower Soup Watch an egg turn into a flower. Chinese cooks say that the cooked shreds of egg afloat in this soup look like flower petals.

1 tablespoon cornstarch

2 tablespoons cold water

1 egg

3 cups clear canned chicken broth

1 teaspoon salt

1 teaspoon chopped scallion or parsley (optional)

Put the cornstarch into a small bowl and gradually add water, stirring it with a fork until you no longer see any lumps. Break the egg into another bowl and beat it with the fork. Pour the broth into the saucepan. Bring it to a boil over high heat. Add the salt. Give the cornstarch and water mixture a quick stir with the fork. Add it to the soup. Stir the soup with a spoon until it thickens and becomes clear (about one minute). Slowly pour the beaten egg into the soup. The egg will cook in the hot soup and form shreds. When all the egg has been added, stir once. Turn off the heat. Pour the soup into 4 soup bowls. Top if desired with chopped scallion or parsley for decorations.

Dirt Pie You will need instant chocolate pudding, Cool-Whip, Oreos, gummy worms or sunflower seeds

and clear plastic cups and spoons. Prepare the pudding according to directions. Crush the Oreos. Layer the pudding, Cool-Whip, crushed cookies, etc. in cups. Add a gummy worm, sunflower seeds, or plastic flower for fun.

Field Trips

Green House Visit a green house or a tree nursery to observe the different plants and trees and inquire about their care.

Farm Plan a visit to a farm. While there, observe the various forms of plant life.

Florist Visit a florist. Observe the different colors, types, and sizes of flowering plants. Then watch the florist design a bouquet or corsage.

Walk Walk around the neighborhood observing different types and colors of flowers.

Other Places

- * A flower garden
- * A vegetable garden
- * A farmers' market
- * A conservatory
- * A park
- * The produce section of a grocery store
- * A natural food store

Notes & Other Ideas