

Look What's Sprouting!

Grade Level or Special Area: Kindergarten Science

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Length of Unit: Seven lessons; approximately 30 minutes each

I. ABSTRACT

In this unit students will explore plants by learning the parts of a plant, what a plant needs to grow, and why farming is important. Students will also learn the difference between deciduous and evergreen plants, as well as explore the inside of different fruits and vegetables. Culminating activities include a unit test, and suggested cooking and field trip activities.

II. OVERVIEW

A. Concept Objectives

1. Students understand the characteristics of living things, the process of life, and how living things interact with each other and their environment. (Colorado Science Standard #3)
2. Students understand interrelationships among science, technology, and human activity and how they can affect the world. (Colorado Science Standard #5)

B. Content from the *Core Knowledge Sequence*

1. Science, pg. 19
 - a. Plants and Plant Growth
 - i. What plants need to grow: sufficient warmth, light, and water
 - ii. Basic parts of plants: seed, root, stem, branch, leaf
 - iii. Flowers and seeds: seeds as food for plants and animals
 - iv. Two kinds of plants: deciduous and evergreen
 - v. Farming

C. Skill Objectives

1. Students will identify the parts of a plant.
2. Students will plant a seed.
3. Students will identify what a plant needs to grow.
4. Students will identify and draw the parts of a plant.
5. Students will properly identify what parts of a plant grow above and under ground.
6. Students will sort and classify different types of seeds.
7. Students will graph the seeds found in certain fruits and vegetables.
8. Students will discover that not all fruits and vegetables have the same size or number of seeds.
9. Students will identify deciduous and evergreen plants outdoors.
10. Students will collect items from deciduous and evergreen plants.
11. Students will discover the importance of farming.

III. BACKGROUND KNOWLEDGE

A. For Teachers

1. Hirsch, E.D., Jr. and Holdren. *What Your Kindergartner Needs to Know*. New York: Bantam Doubleday Dell Publishing Group, Inc., 1996. ISBN 0-385-31841-3.

B. For Students

1. Introduction to seasons and weather (Kindergarten)

IV. RESOURCES

- A. *At Home with Science: Dig and Sow* by Janice Lobb (Use as needed in all lessons)
- B. *What Your Kindergartner Needs To Know* by E.D. Hirsch (Use as needed in all lessons)
- C. *Tops and Bottoms* by Janet Stevens (Lesson Three)
- D. *The Tiny Seeds* by Eric Carle (Lesson Four)

V. LESSONS

Lesson One: What Is a Plant? (approximately 40-45 minutes)

- A. *Daily Objectives*
 - 1. Concept Objective(s)
 - a. Students understand the characteristics of living things, the process of life, and how living things interact with each other and their environment. (Colorado Science Standard #3)
 - 2. Lesson Content
 - a. Plants and Plant Growth
 - i. Basic parts of plants: seed, root, stem, branch, leaf
 - 3. Skill Objective(s)
 - a. Students will identify the parts of a plant.
 - b. Students will plant a seed.
- B. *Materials*
 - 1. Small, clear plastic cups
 - 2. Potting soil and scoops
 - 3. Seed assortment
 - 4. Pitcher of water
 - 5. Permanent marker
 - 6. One copy of Appendix A per child
 - 7. Scissors
 - 8. Glue
 - 9. Crayons
 - 10. Parent helpers – optional
 - 11. One copy of Appendix B
- C. *Key Vocabulary*
 - 1. Seed – ovule of plant
 - 2. Root – subterranean part of a plant
 - 3. Stem – plant stalk
 - 4. Branch – limb, natural plant division
 - 5. Leaf – lateral outgrowth of a stem
- D. *Procedures/Activities*
 - 1. Seat children in a semicircle on the floor.
 - 2. Show the students a plant.
 - 3. *Who can tell me what this is?*
 - 4. *Does anyone have one of these at their house?*
 - 5. *That's right! It's a plant.*
 - 6. *Can anyone tell me what the different parts of a plant are called?*
 - 7. Allow time for children to respond.
 - 8. *A plant has five different parts. The seed is what we plant to grow the plant. Then the roots grow underground and a stem sprouts above the ground. The plant will eventually grow branches and leaves, too.*
 - 9. As you discuss each part of the plant, be sure to point out that part on the actual plant.

10. *Today you are going to get to plant your own seeds. You will get to choose what you want to plant and grow.*
 11. *We will have one small group at a time planting seeds while the rest of you are working on a worksheet on plant parts.*
 12. Separate the children into three-four small groups.
 13. Assign one group to planting, and seat the rest at tables to work on Appendix A.
 14. Pass out Appendix A, scissors, glue, and crayons to the children seated at tables.
 15. Explain the Appendix A worksheet to the entire class before dismissing the first group to begin planting.
 16. After explaining the worksheet, allow the first group of students to choose their seeds for planting.
 17. You will want to take each group through the step by step process of planting a seed.
 18. *First, use a marker to write your name on the outside of your cup.*
 19. *Next, choose the seed that you would like to plant and take out 2-3 of the seeds from the package.*
 20. *Next, use a scoop and fill up your cup halfway with soil. Using your finger, make three small holes in the dirt for the seeds to sit inside of.*
 21. *Now, place one seed down inside each hole. Gently pat the soil over the top of the seeds.*
 22. *Now, you may give your seed water. Remember not to give it too much water, or it will not grow.*
 23. Place the cups in a container that can easily be carried outside or to a window for sunlight.
 24. Repeat the above steps with the remaining groups.
 25. Sing the song “Parts of Plants” found in Appendix B.
- E. *Assessment/Evaluation*
1. Appendix A – Plant parts

Lesson Two: What Does a Plant Need? (approximately 30 minutes)

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students understand the characteristics of living things, the process of life, and how living things interact with each other and their environment. (Colorado Science Standard #3)
 2. Lesson Content
 - a. Plants and Plant Growth
 - i. What plants need to grow: sufficient warmth, light, and water
 3. Skill Objective(s)
 - a. Students will identify what a plant needs to grow.
- B. *Materials*
1. Storybook paper
 2. Pencils
 3. Crayons
 4. One copy of Appendix C per child
- C. *Key Vocabulary*
1. Warmth – heat source
 2. Light – sun or sun lamp
- D. *Procedures/Activities*
1. Review planting procedures from previous day. Allow students to share what type of seed they planted.

2. Review the parts of a plant. You may choose to have a large poster or piece of chart paper that displays the parts of a plant while you review them with the class.
 3. As you point to a certain plant part, ask the children to name the part and its function for the plant.
 4. Sing the “Parts of Plants” song from previous day’s lesson.
 5. *Today we are going to learn what a plant needs to help it grow. Can anyone tell me one thing a plant might need to grow?*
 6. Allow time for children to respond.
 7. *There are three things that a plant must have for it to grow. It must have warmth. It must have water. It must have light.*
 8. *What do you think might happen if the plant does not have one of these things that it needs?*
 9. Allow time for discussion.
 10. *How do we make sure that the plants that we planted are going to get what they need to grow?*
 11. Allow time for discussion.
 12. Have students be seated at tables for a hard writing surface.
 13. Pass out one piece of storybook paper, a pencil, and crayons to each child.
 14. *Today I want you to tell me about a plant you are going to grow. First, I want you to draw a picture of your plant at the top of this paper.*
 15. *You may be creative. If you would like to make up a plant, you may do that.*
 16. *Go ahead and begin drawing your plant.*
 17. Allow time for children to draw their plants.
 18. *Now, I want you to use the lines at the bottom of the paper and tell me where your plant will live so that it gets warmth and sunlight, and how it will get the water it needs.*
 19. *Remember to use your imagination and be creative!*
 20. As students begin writing, you may choose to go around the classroom and write sentences under what the child has written.
 21. After all of the children have completed their drawings and writing, bring the children back to the floor.
 22. Allow the students to share the plant that they have created and their writing.
- E. *Assessment/Evaluation*
1. Plant drawing/writing
 2. Appendix C: Drawing/Writing Checklist

Lesson Three: Tops and Bottoms (approximately 30 minutes)

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students understand interrelationships among science, technology, and human activity and how they can affect the world. (Colorado Science Standard #5)
 2. Lesson Content
 - a. Plants and Plant Growth
 - i. Basic parts of plants: seed, root, stem, branch, leaf
 - ii. Farming
 3. Skill Objective(s)
 - a. Students will identify and draw the parts of a plant.
 - b. Students will properly identify what parts of a plant grow above and under ground.

B. *Materials*

1. *Tops and Bottoms* by Janet Stevens
2. Construction paper cut in 5" x 10" strips
3. Watercolor paints
4. Water
5. Plastic cups
6. Crayons
7. Illustrations of vegetables that grow above ground and under ground
8. Appendix D – Vegetable garden example

C. *Key Vocabulary*

1. Above ground – grows above the earth (soil)
2. Under ground – grows under the earth (soil)

D. *Procedures/Activities*

1. Seat the children on the floor.
2. Read the book *Tops and Bottoms* by Janet Stevens.
3. After reading, discuss the different types of vegetables that grow above ground and those that grow under ground.
4. Show the class illustrations or drawings of vegetables such as carrots, tomatoes, corn, onions, radishes, lettuce, etc.
5. Explain to the class how some plants have their fruit grow under ground (as a root) and some plants roots grow under ground and their fruit grow above ground.
6. Be sure the class understands that sometimes you eat the “tops” of plants, and other times you eat the “bottoms” of plants.
7. *Today you are going to draw a picture of your own vegetable garden.*
8. Have the children be seated at tables.
9. Pass out one piece of construction paper and crayons to each student.
10. *The drawing we will be doing today is called a wash. First, we will draw our garden using crayons. Then we will watercolor paint over the top of it.*
11. *When you are using your crayons to draw your garden, you will need to use heavy pressure. Be sure not to push so hard that the crayon breaks, but hard enough so that you get nice, bright colors.*
12. *First, you will need a brown crayon. Using your brown crayon, draw a line horizontally across your paper. This will divide our tops from our bottoms.*
13. *Next, you will fill up your garden with vegetables. Make sure you are drawing the right parts below ground (on the bottom) and the right parts above the ground (on the top).*
14. Demonstrate this for the students by drawing a carrot. This is an obvious choice because of the carrot being below ground and the leaves being above ground.
15. Allow the children to fill up their paper with vegetables. Make sure they fill in all empty spaces.
16. When all of the students have correctly drawn their vegetable garden (there may be a few who need to start over), show the children how to do the wash.
17. *Now it is time for us to use our paints and make our wash. First, we will use brown paint. Who can tell me where we will paint the brown paint? On the top or on the bottom? (bottom)*
18. *Dip your paintbrush in the water several times and then dip your brush into the brown paint. Now you will paint over the bottom half of your garden with the brown paint.*
19. *Make sure you are using plenty of water. You do not want the paint to look dry.*

20. *When you have finished painting the brown, we are going to paint the top of the garden with blue.*
 21. *Dip your paintbrush into the water several times, making sure it is clean. Now, dip your brush into the blue paint and begin painting the top of your garden blue.*
 22. *Again, make sure you are always using plenty of water.*
 23. Check on the students and make sure they are covering their entire drawing with the proper paint colors.
 24. *When you have finished, clean up your area and leave your painting there to dry.*
 25. *I will be calling you up one at a time to ask you a couple of questions.*
- E. *Assessment/Evaluation*
1. Appendix E– Checklist: Top or Bottom? Give the students a list of four to five different vegetables. For example; Would I eat the top or bottom of a carrot? Does a flower have roots on the top or the bottom?
 2. Check the students answer on the checklist.

Lesson Four: Seed Sorting (approximately 30 minutes)

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students understand the characteristics of living things, the process of life, and how living things interact with each other and their environment. (Colorado Science Standard #3)
 2. Lesson Content
 - a. Plants and Plant Growth
 - i. Flowers and seeds: seeds as food for plants and animals
 3. Skill Objective(s)
 - a. Students will sort and classify different types of seeds.
- B. *Materials*
1. Assortment of seeds such as pumpkin, sunflower, tomato, strawberry, tulips, etc.
 2. Appendix F – Seed Sorting Mat
 3. *The Tiny Seed* by Eric Carle
 4. *Construction paper*
 5. Glue
 6. One copy of Appendix E per child
- C. *Key Vocabulary*
- None
- D. *Procedures/Activities*
1. Seat the children on the floor in a semicircle.
 2. Show the children a variety of different seeds.
 3. Read the book *The Tiny Seed* by Eric Carle
 4. After reading the story, ask some of the following questions:
 - a. Why didn't all of the seeds in the story grow to become big, beautiful flowers? (they were burned, frozen, drowned, dried out, eaten, overtaken by a weed, stepped on, or picked)
 - b. How many seeds do you think one sunflower can make? (some sunflowers can produce up to 1,000 seeds)
 - c. Why do you think it makes so many? (because many things can happen to the seeds to keep them from becoming full-grown plants)
 - d. What are some other kinds of seeds we use for food? (beans, peas, and peanuts)
 5. *Can you eat certain seeds? What kinds of seeds are okay to eat?*
 6. *What types of seeds are not ok to eat?*

7. *Would an animal eat seeds?*
8. *What types of animals eat seeds as food?*
9. *Today you are going to look at a variety of different seeds and sort them.*
10. *How do you think that you could sort the seeds? (by size, color, type)*
11. *I am going to give each of you a sorting mat and a tub of seeds.*
12. *I want you to decide how to sort your seeds. Then, you will have time to share how you sorted your seeds.*
13. Pass out one seed tub and one sorting mat to each child.
14. *When you have your seed tub and sorting mat, you may begin sorting your seeds. Remember that you need to choose how you are going to sort your seeds, whether it is by color, size, or type.*
15. Allow time for children to sort their seeds.
16. When the children have finished sorting, ask if there are any children who would like to share their seed sorting.
17. *Would anyone like to share how they sorted their seeds?*
18. Allow time for children to share.
19. *Now, I want you to switch mats and seeds with someone near you. I want you to ask that person how they sorted their seeds. Then, I want you to find a different way to sort their seeds.*
20. Allow time for children to sort their seeds.
21. *Now, I am going to pass out one piece of construction paper and glue to each of you.*
22. Pass out the supplies.
23. *I would like you to return to your original seeds. I want you to use your glue and construction paper to glue on seeds from smallest to largest.*
24. *First, I want you to arrange your seeds from smallest to largest on your construction paper. You may not need to use all of your seeds.*
25. *Before you glue your seeds on your construction paper, I want you to raise your hand and let me check your seeds. If they are sorted properly, I will let you glue them onto the paper.*
26. Allow students to begin sorting seeds by size on their construction paper.
27. When children have finished, allow them to write or dictate a sentence about their seed sizes onto their construction paper.
28. Students should then complete the assessment, Appendix F, with a parent helper or in a small group. The story may be written by the student or dictated to an adult.

E. *Assessment/Evaluation*

1. Properly sorted seeds
2. Appendix F – The Story of a Seed

Lesson Five: The Seeds Within (approximately 30 minutes)

A. *Daily Objectives*

1. Concept Objective(s)
 - a. Students understand the characteristics of living things, the process of life, and how living things interact with each other and their environment. (Colorado Science Standard #3)
2. Lesson Content
 - a. Plants and Plant Growth
 - i. Flowers and seeds: seeds as food for plants and animals
3. Skill Objective(s)
 - a. Students will graph the seeds found in certain fruits and vegetables.

- b. Students will discover that not all fruits and vegetables have the same size or number of seeds.

B. *Materials*

1. One copy of Appendix G per child
2. Crayons
3. Pencils
4. Four of each of the following:
 - a. Orange
 - b. Pepper
 - c. Pea
 - d. Avocado
 - e. Melon
 - f. Apple
 - g. Peach
 - h. Tomato
5. Knife to cut the fruits/vegetables (to be used by adult ONLY)
6. Parent helpers (optional)
7. Bowl or container to place seeds inside of
8. Paper towels

C. *Key Vocabulary*

1. None

D. *Procedures/Activities*

1. Seat children on the floor in a semicircle to explain the activity.
2. *Today you are going to be looking inside of different fruits and vegetables to see how many seeds each one has.*
3. *You are going to be placed into a group with a helper.*
4. Separate the class into four small groups. It would be best if the groups were also seated at tables.
5. Once the children have been divided into groups, pass out one of each of the fruits/vegetables to each of the groups.
6. Pass out one bowl or container to each group.
7. As you go to each group, tell them to select the fruit/vegetable that they would like to cut open first.
8. Cut open the fruit/vegetable that each group chooses.
9. *Once I have cut your fruit or vegetable open for you, your group will need to begin removing the seeds from it and placing the seeds into the container on your table.*
10. Allow time for groups to remove seeds.
11. *After your group has removed all of the seeds, you will need to count how many seeds there are.*
12. *When you have finished counting, each member of the group will need to fill in their graph. You will color in one square for every seed you counted.*
13. Demonstrate if necessary.
14. *Once you have finished counting and filling in your graph for your first fruit or vegetable, raise your hand. I will come to your table and cut open the next fruit or vegetable you choose.*
15. Continue in this manner until each group has counted and graphed the seeds for each fruit or vegetable.
16. When all of the groups have finished, have the children bring their completed graph and take a seat on the floor.

17. *Who can tell me what they discovered about the seeds that came from these fruits and vegetables?*
 18. Allow time for children to share.
 19. *Were all of the seeds the same size?*
 20. *Which one had the biggest seed?*
 21. *Which one had the smallest seed?*
 22. *Did all of the fruits and vegetables have the same number of seeds?*
 23. *Which one had the most seeds?*
 24. *Which one had the least amount of seeds?*
 25. *Were you surprised by anything that you discovered today?*
- E. *Assessment/Evaluation*
1. Appendix G – The Seeds Within graph

Lesson Six: Two Types of Plants (approximately 35-40 minutes)

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students understand the characteristics of living things, the process of life, and how living things interact with each other and their environment. (Colorado Science Standard #3)
 2. Lesson Content
 - a. Two kinds of plants: deciduous and evergreen
 3. Skill Objective(s)
 - a. Students will identify deciduous and evergreen plants outdoors.
 - b. Students will collect items from deciduous and evergreen plants.
- B. *Materials*
1. Pictures of deciduous and evergreen plants
 2. One copy of Appendix H per child
 3. One clipboard per child on scavenger hunt
 4. Pencils
 5. Parent helpers (optional)
- C. *Key Vocabulary*
1. Deciduous – fall off or shed seasonally
 2. Evergreen – something that retains its freshness
- D. *Procedures/Activities*
1. Seat the children on the floor in a semicircle.
 2. Show the children pictures of deciduous plants and evergreen plants.
 3. *There are two different types of plants. One type is called a deciduous plant.*
 4. Show a picture of a deciduous plant such as an oak tree, maple tree, etc.
 5. *Deciduous plants are plants that will shed their leaves in the fall.*
 6. *Can you think of some deciduous plants that you have seen?*
 7. *The other type of plant is called an evergreen plant.*
 8. Show a picture of an evergreen plant such as a conifer, juniper, etc.
 9. *Can you think of some evergreen plants that you have seen?*
 10. *Today you are going to go on a scavenger hunt outside and search for deciduous and evergreen plants.*
 11. *First, I am going to separate you into three groups. One group at a time will go outside on their scavenger hunt.*
 12. Separate the class into three groups.
 13. Choose one group to go on the scavenger hunt first.
 14. This group will need a clipboard, a pencil and a copy of Appendix H for each child in the group.

15. The other students can be working on seatwork or learning centers while the first group is gone.
 16. You may choose to have a parent helper take the groups on the scavenger hunt while you (the teacher) work with other students in the classroom.
 17. You may also choose to have more than one parent helper (possibly three) so that all three groups of students can be doing the scavenger hunt at the same time.
 18. *While you are on your scavenger hunt, I want you to record what you see on this piece of paper.*
 19. Show the class Appendix H.
 20. *Each time you see a deciduous plant, you will make a tally mark in this column. Point to appropriate column.*
 21. *Each time you see an evergreen plant, you will make a tally mark in this column. Point to the appropriate column.*
 22. *You will also need to draw a picture of one deciduous plant and one evergreen plant that you see.*
 23. *I also want each of you to collect one item from one deciduous and one evergreen plant.*
 24. *So, when you have finished, you should come back inside with one item from a deciduous plant, one item from an evergreen plant, and your worksheet with tally marks and two drawings of deciduous and evergreen plants.*
 25. Pass out supplies for scavenger hunt.
 26. *You will have ten minutes to complete your scavenger hunt.*
 27. Dismiss students for scavenger hunt.
 28. When all the children have returned from their scavenger hunt, have them sit on the floor with the items collected from their hunt.
 29. *I would like each of you to share the items you collected on your scavenger hunt.*
 30. *After each person shares, the class will guess if the item came from a deciduous or evergreen plant.*
 31. Allow time for each child to share their items.
- E. *Assessment/Evaluation*
1. Appendix H – Scavenger Hunt page
 2. One item collected from a deciduous plant and one item collected from an evergreen plant.

Lesson Seven: On the Farm

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students understand the characteristics of living things, the process of life, and how living things interact with each other and their environment. (Colorado Science Standard #3)
 - b. Students understand interrelationships among science, technology, and human activity and how they can affect the world. (Colorado Science Standard #5)
 2. Lesson Content
 - a. Plants and Plant Growth
 - i. Farming
 3. Skill Objective(s)
 - a. Students will discover the importance of farming.
- B. *Materials*
1. Chart paper and marker
 2. One copy of Appendix I per child

3. Scissors
 4. Glue
 5. Crayons
 6. Construction paper – 18” x 11”
- C. *Key Vocabulary*
1. None
- D. *Procedures/Activities*
1. Seat the children in a semicircle on the floor.
 2. *How many of you have ever seen or been to a farm?*
 3. *What have you seen that can be grown on a farm?*
 4. *Does anyone have a garden at home?*
 5. *What types of things are you growing in your garden?*
 6. *Can a garden sometimes act like a farm? Yes*
 7. *How? You can grow vegetables to eat.*
 8. *Why would a farm or a garden be important? They are important so that people can have fruits and vegetables to eat.*
 9. *What would happen if there were no more farms or gardens? People couldn't eat healthy foods.*
 10. *Not only could people not eat healthy foods like fruits and vegetables, but people would not be able to eat many other foods that come from vegetables in the gardens.*
 11. *Let's think of some vegetables that give us some other foods.*
 12. As the students brainstorm, write their answers on chart paper.
 13. You may need to get the class started.
 14. *Where do French fries come from? Potatoes*
 15. *Right! We couldn't have French fries if we didn't have potatoes.*
 16. On one side of the chart paper write the word POTATO.
 17. On the other side of the chart paper write the word FRENCH FRIES.
 18. *Who can think of another example?*
 19. Continue to write the children's suggestions. Some other options are tomato/ketchup, corn/popcorn, cucumber/pickle, lettuce/salad, strawberries/jam.
 20. *Today you are going to make a flip page that shows foods that come from vegetables.*
 21. Have students be seated at tables.
 22. Pass out one copy of Appendix I, one pair of scissors, crayons, glue and construction paper to each child.
 23. *Let's start by cutting out the pictures from our worksheet.*
 24. *Next, I want you to take your piece of construction paper and fold it in half the long way, like a hot dog.*
 25. *Now, on the top flap of the construction paper, you need to glue on the pictures of the potato, corn, cucumber, and the tomato.*
 26. *Make sure to leave enough space in between the pictures so that you can cut flaps.*
 27. *After you have glued on your pictures, I want you to cut ONLY the top piece of paper in between each picture. You are going to cut only to the fold.*
 28. Demonstrate if necessary.
 29. *This should make a flap for each picture.*
 30. *Underneath each vegetable picture, I want you to glue the picture of the food that comes from that vegetable.*
 31. *When you think you are finished with your gluing, please raise your hand so that I can come check your paper.*

32. *After I have checked your paper, you may begin coloring in your pictures.*
- E. *Assessment/Evaluation*
1. Appendix I – Vegetable Flip

VI. CULMINATING ACTIVITY

- A. Appendix J - Unit Test
- B. Cooking Activity – Vegetable Soup
1. Ingredients/ Supplies
- 2 cups water
 - Variety of cleaned and cut vegetables
 - ½ teaspoon vegetable bouillon
 - Crock Pot or hot plate with saucepan and lid
 - Measuring cup
 - Spoon
 - Measuring spoon
 - Bowl
2. Fill a crock pot or saucepan with 2 cups water. Add chopped vegetables. Add ½ teaspoon vegetable bouillon, and stir. Have an adult turn on the crock pot or heat the saucepan. Let the soup simmer until the vegetables are soft. Have an adult pour the soup into a bowl.
- (Adapted from Book Cooks; Creative Teaching Press)
- C. Field Trip – Take the students to a local farm. You may choose to do this either during planting season or during harvest season. If going during planting season, see if the children will be allowed to plant some seeds and keep track of their progress. If going during harvest season, see if the children will be allowed to pick apples or pumpkins to take with them.

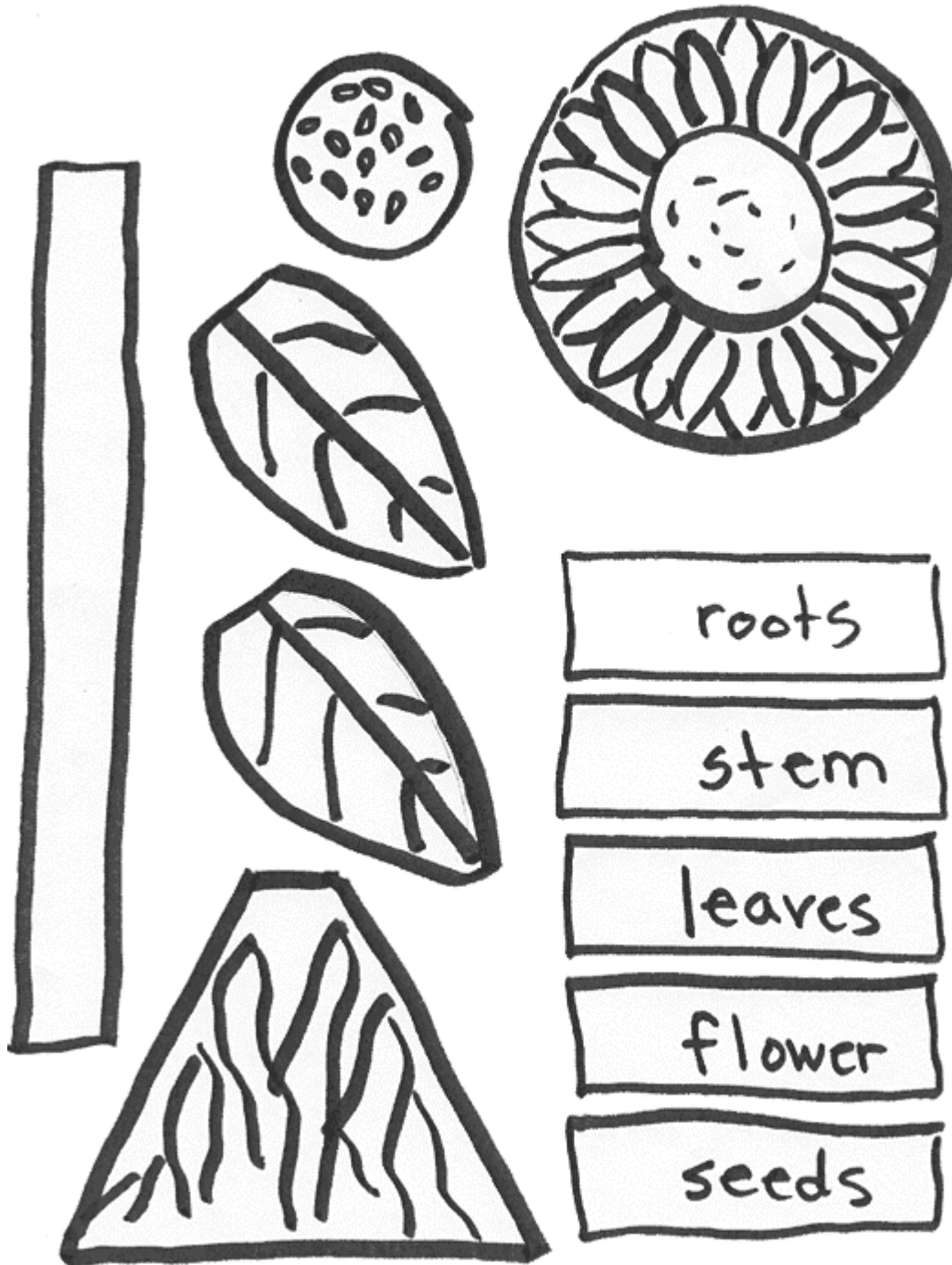
VII. HANDOUTS/WORKSHEETS

- A. Appendix A: Plant Parts
- B. Appendix B: Parts of Plants Song
- C. Appendix C: Drawing/Writing Checklist
- D. Appendix D: Vegetable Garden Example
- E. Appendix E: Checklist
- F. Appendix F: Seed Sorting Mat
- G. Appendix G: Seeds Within Graph
- H. Appendix H: Plant Scavenger Hunt
- I. Appendix I: Vegetable Flip
- J. Appendix J: Unit Test
- K. Appendix K: Key for Unit Test

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Appendix A
Plant Parts



Adapted from The Mailbox Magazine, April/May 2002

"Parts of Plants" Song

(sung to the tune of "If You're Happy and You Know It")

Do you know the parts of plants,
Do you know?
Do you know the parts of plants,
Do you know?
All kinds of plants that grow and grow and grow.
Do you know the parts plants,
Do you know?

The roots hold the plants in place,
Yes they do!
The roots hold the plants in place,
Yes they do!
The roots store food and water too.
The roots hold the plants in place,
Yes they do!

The stem moves water up the plant,
Watch it grow.
The stem moves water up the plant,
Watch it grow.
The stem brings water to the leaves.
The stem moves water up the plant,
Watch it grow.

The leaves soak up the sun,
And turn green.
The leaves soak up the sun,
And turn green.
The sun helps the plant to grow and grow and grow.
The leaves soak up the sun,
And turn green.

The flower grows into a fruit,
Yummy fruit.
The flower grows into a fruit,
Yummy fruit.
Inside the fruit are teeny, tiny seeds.
The flower grows into a fruit,
Yummy fruit.

Adapted from *The Mailbox Magazine*, Kindergarten, April/May 1998

Appendix C

Drawing/Writing Checklist

Student Name _____

Date _____

Student accurately drew a picture of a plant	Y	N
--	---	---

Student was able to write at least one sentence about their plant	Y	N
---	---	---

Student's handwriting is legible	Y	N
----------------------------------	---	---

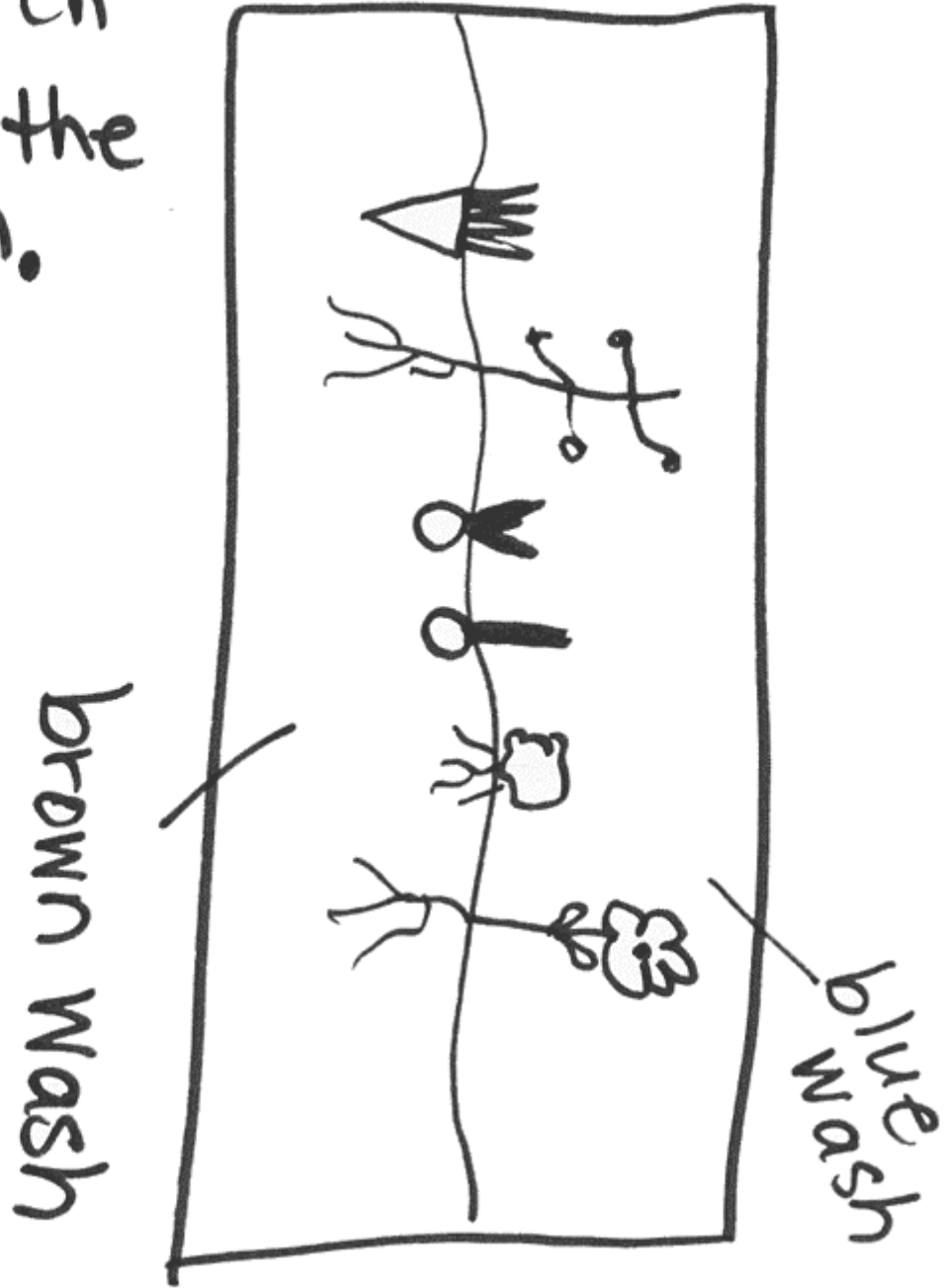
Student was able to sound out the words on their own	Y	N
--	---	---

Student's writing made sense	Y	N
------------------------------	---	---

Appendix D

Vegetable Garden Example

Children
draw the
garden.



Appendix E

Checklist: Top or Bottom

Student name: _____

Date:

Number of question student answered correctly	1	2	3	4	5
---	---	---	---	---	---

Does the student understand the concept?				Yes	No
--	--	--	--	-----	----

Did the student need extra help when asked the question?				Yes	No
--	--	--	--	-----	----

Would this student benefit from reteaching?				Yes	No
---	--	--	--	-----	----

Comments:

Seed Sorting Mat

The Story of a Seed

Name _____

Imagine that you are a tiny, little seed. Tell what happens to you, starting with the time you are planted. Be sure to tell about the things you need and how and where you will grow.

On a separate piece of paper, draw a picture of your full-grown plant.

Appendix H

Plant Scavenger Hunt

Plant Type	How Many? (tally marks)
DECIDUOUS PLANTS	
EVERGREEN PLANTS	

I found _____ deciduous plants.

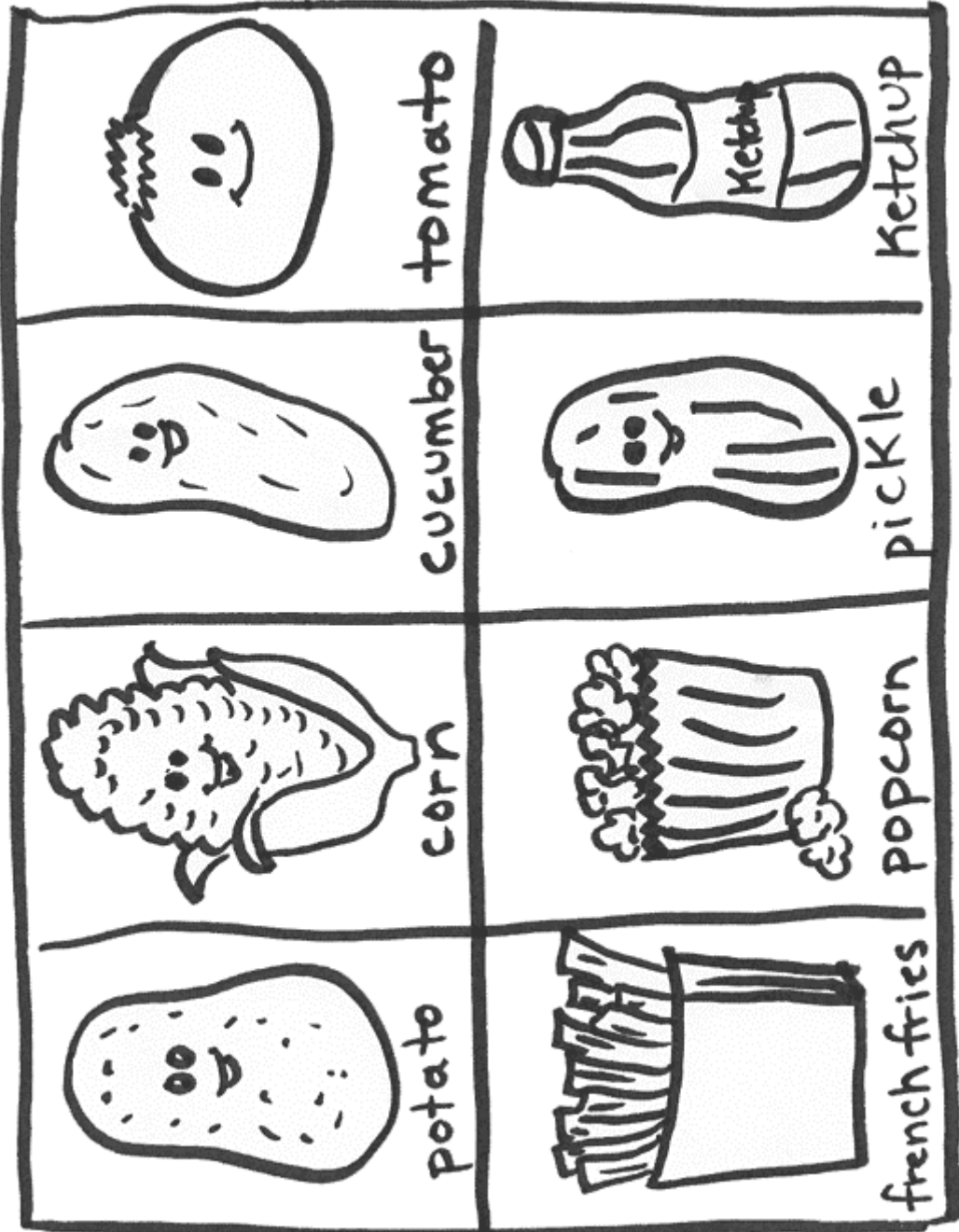
Here is a picture of one of them.

I found _____ evergreen plants.

Here is a picture of one of them.

Appendix I

Vegetable Flip



Adapted from The Mailbox Magazine, April/May 2002

Appendix J

Unit Test

Name _____

Date _____

1. What do the roots of a plant do?

Hold the plant in place

Sprout leaves

Grow toward the sun

2. Which of these does a plant NOT need to grow?

Water

Warmth

Clothes

Light

3. Do all fruits and vegetables have the same amount of seeds?

Yes

No

4. Which of these plants grows on the "bottom"?

Lettuce

Tomato

Carrot

Flower

5. Deciduous plants never lose their leaves.

True

False

6. Which one of these vegetables makes pickles?

Corn

Cucumber

Potato

Tomato

7. Some seeds are edible.

True

False

Appendix K

Key for Unit Test

1. What do the roots of a plant do?

Hold the plant in place

2. Which of these does a plant NOT need to grow?

Clothes

3. Do all fruits and vegetables have the same amount of seeds?

No

4. Which of these plants grows on the "bottom"?

Carrot

5. Deciduous plants never lose their leaves.

False

6. Which one of these vegetables makes pickles?

Cucumber

7. Some seeds are edible.

True