Healthy Preschool Project

Activity Teachers’ Guide

Activities around Food and Nutrition for the Pre-School Classroom

Play, Learn and Grow... Together!

Compiled by:

Allison Hopkins, AmeriCorps VISTA

Partners for a Hunger-Free York County

In cooperation with:
Child Care Services of York County
Healthy Preschool Project
Teachers’ Guide

Activities around Food and Nutrition for the
Pre-School Classroom

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Helping to Nourish the Bodies and Minds of
Young Children
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GARDENING ACTIVITIES

Seeds
Parts of a Plant
Indoor/ Outdoor Gardening
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Seeds Activities

Appropriate for children ages 5 and up

BEAN DISSECTION

Traditional Lesson Design

Preparation:

- Purchase a bag of large lima beans at the supermarket.
- Count out approximately 2 beans for each student who will participate in the Bean Dissection activity.
- Place counted beans in a bowl and cover with water.
- Soak beans overnight.

Teacher Information:

- Introduce the book Oh Say Can You Seed, by Bonnie Worth to the class. Read orally pages 6-15 and discuss.
- Distribute 2 beans to each student. Place beans on dry paper towels.
- Discuss seed parts with students as they investigate the beans.
- Ask students to take beans apart and identify the seed coat, cotyledon(s), and embryo.
  - You may ask students to observe and record findings as they locate seed parts.
  - You may ask students to sketch the seed parts as they locate and identify them.
  - Provide "Ag in the Classroom Bean Book" kits for students to construct as a reference tool for future use. To obtain Bean Book plans, visit

BEAN SEED DISSECTION

Engagement Activity:

- Bring a bowl of large lima beans, which have been soaked in water overnight to class.
- Invite students to work individually or in pairs and to take two beans from the bowl and place them on paper towels in their work space.
- Instruct students to take one of the objects and observe.

Ask attention focusing questions such as:

- Describe what you see.
- What clues does this lima bean give you about its growth?

Exploration Activity:

- Instruct students to investigate one of the beans they have placed on the paper towel. They may use their hands or other simple instruments you may provide. (Tweezers, toothpicks, files, etc.)
- Encourage the use of process skills by asking students to observe size, shape, number of parts, textures, etc. Ask students to record observations in appropriate ways. Ask students to draw a diagram of the parts of a seed and label it. (See picture of the seed.)

Explanation Activity:
Tell students that the bean they have investigated is a part of a plant. Every flowering plant has six parts and their bean is one of them.

Ask students to hypothesize which plant part they think the bean might be and explain why. (It is the seed)

Instruct students to discuss the three different parts they found when dissecting the bean and hypothesize their purpose. (The seed coat protects the seed, cotyledons provide food prior to germination and photosynthesis, and the embryo is a tiny plant)

Ask students how they might test hypotheses.

Instruct students to hypothesize as to the needs of the seed in order to germinate/sprout. (water, soil or other medium to hold moisture, warm temperature) Ask students how they might test their hypotheses.

Would the same be true for all seeds?

**Elaboration Activity:**

- Allow students to set up and conduct experiments to test hypotheses formed during the Explanation Activity. Have them gather needed resources (books to verify guesses, materials to test needs of seeds) and follow through with experimental activities.
- Require students to journal findings of all experiments stating whether hypotheses were proven or disproved.

**Evaluation/Extension Activity:**

- Draw, label, and write explanations of the purposes of each part of the seed.
- Provide "Ag in the Classroom Bean Book" kits for students to construct as a reference tool for future use. To obtain Bean Book plans, visit

("Classroom activities "oh," )
Create a Mini Greenhouse in Preschool (Also see indoor gardening)

This activity is appropriate for toddlers up to 5 years, all children enjoy “watching their plants “grow”

Get the kids thinking and talking about a plants (introduce books in class).

Bring simple plant into the class, passed the plant around the circle of children and talk about the leaf, stem, and roots (also can be used for parts of a plant)

Show pictures of greenhouse and explain what happens there “It is a big building where you grow plants.”

Make Your Own Greenhouses: Grow a Bean in the Greenhouse

- **What you’ll need:**
  - Beans: Soak the night before lesson
  - Water droppers
  - Cut outs of Greenhouses made from green construction paper
  - Paper rulers
  - White paper towels
  - Plastic sandwich bags
  - Tape

Planting the bean:

- Used the droppers to get their paper towels wet with water
- Folded or roll the wet paper towel and placed it in the bottom of a plastic sandwich bag
- Have kids count out at least four beans and dropped them in the bag on top of the wet paper towel
- Seal the bag shut.
- Once beans are planted in their baggies it’s time to make the greenhouses.
- To make the greenhouse, prepare the cutout of the greenhouse and paper rules ahead of time.
- Instruct the children to use the paper rulers and add numbers along one side of the greenhouse.
  This is so the class can keep track of the growth of the plant as it gets taller.
- Ask the children to write their name on the greenhouse
- Instruct the children to tape their bean in a baggie inside the greenhouse
- Finally, hang them up in the window to watch the beans grow
- Observe the beans sprout up and talk about our measurements along the way!

(Stewart, 2013)
Appropriate for 4 and 5 year olds and could be adapted for young children (not including the graphing, buy possibly including a "seed collage")

Template for
Greenhouse for bean/ seed project

Cut out
Things you’ll need:

- Beans
- Apple seeds
- Corn seeds
- Sunflower seeds
- Seed Shorting Sheet in back of booklet

Lesson:

Discuss what each seed is and where it comes from. Ask the children to place each seed in the corresponding box. This will help with sorting, and fine motor skills

("Share & Remember," 2010)
Seed Graphing

Use leftover seeds and/or purchase just a couple extra packets (particularly large seeds to make things easier to work with).

These are EXAMPLES of seeds (and quantities) that work well:

- Watermelon - 7
- Pumpkin - 7
- Radish - 4
- Swiss Chard - 5
- Hot Pepper - 8
- Cucumber - 6
- Peas - 10
- Beans - 5
- Corn - 1
- Radish (different variety) – 3

Be aware of counting out only one of a certain seed, ten of another, and a couple groups that had the same amount. This way it's clear to determine on the graph which seeds have more/less/the same.

Graph is on the next page... HAPPY GRAPHING!!

("counting coconuts:seed graphing," 2011)
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("counting coconuts:seed graphing," 2011)
"The Tiny Seed" By Eric Carle Inspired Kids Craft - Sensory Tree: Project
"The Tiny Seed" Sensory Tree - Eric Carle Inspired Kids Craft
Preschool Crafts for Kids of all abilities!
For Ages 3 Years and Up

Appropriate for children ages 3 and up, you can add materials to make this a more "open ended" and/or more "individualized" project.

Supplies Needed:
- Colored Lentils - red and green
- White Glue
- Brown Paint
- Green Paint
- Foam Paint Brush
- Craft Bowl
- 1 Sheet of Foam Paper
- Newspaper or Aluminum Foil To Keep The Work Area Clean

Time Needed:
- up to 30 Minutes plus drying time

What to Do:
1. Pour some white glue in a bowl along with brown poster paint and mix together.
2. On your sheet of foam paper paint a tree trunk with some branches
3. Pour red lentils over the painted area. Press down firmly and wait 30 seconds
4. Lift foam sheet to allow excess lentils to fall off. Pour them back into a plastic bag or container for reuse.
5. Pour green paint into your craft bowl and add some glue. Mix together.
6. Paint the leafy treetop onto your tree by painting the green between and around the branches. Also dab a little glue and/or paint away from the tree. Those are the seeds!
7. Pour green lentils over the foam sheet. Press down firmly and wait 30 seconds
8. Let dry completely
9. ENJOY! You're done! Show it off by hanging your masterpiece on the wall, or on the wall near your favorite place to read "The Tiny Seed"

(""The tiny seed", " 2012)
Growing an Avocado Preschool Lesson Plan (also see in nutrition, cooking and indoor gardening)

Appropriate for children ages 2 to 5, can also be used with other vegetables, i.e. sweep potatoes etc.

Written by: Deborah Walstad • edited by: Tania Cowling • updated: 1/9/2012

Growing an avocado in class provides an opportunity to teach young students about the taste and texture of avocados, as well as how plants grow. Avocados have many health benefits and are commonly used to make guacamole and to add flavor to other foods.

- **What is an Avocado?**
  
  Show the class an avocado and ask if anyone knows what it is. Who has tasted an avocado? Allow the students to feel the rough outside skin. Tell the class that an avocado is a green-skinned, pear-shaped fruit. Avocado trees are native to Puebla, Mexico and grow in tropical climates around the world. Tell them you are going to plant an avocado seed, care for the plant and watch it grow.
  
  1. Preparing an avocado for planting
  2. Planting an avocado seed
  3. Caring for the avocado plant
  4. Texture and taste of an avocado
  5. Common recipes using avocados

- **Planting an Avocado Seed:**
  
  Materials needed for this activity are: avocados, toothpicks, a glass, soil, planter/ pot and water.
  
  New avocados can grow from planting an avocado seed. Tell the class you need their help to prepare an avocado seed for planting. Each day the students come to preschool, have them check on the seed and care for it as needed.

  **Classroom Instructions:**
  
  1. Carefully cut the avocado in half and remove the seed. Wash the seed under running water.
  2. Use three toothpicks to suspend it above a water-filled glass with wide end of the seed down to cover about an inch of the seed in water.
  3. Place it in a warm place away from direct sunlight and refill the water as needed. In about two to six weeks roots and stem will sprout.
  4. Watch the seed until the stem is six to seven inches long, and then cut it back to about three inches.
  5. When the roots have become thick and the stem has leafed out again (note: this may take a few months), plant the seed in a rich humus soil in a 10-1/2" diameter pot. Leave the seed half exposed.
  6. Water lightly and frequently with an occasional deep soak. Keep the soil moist, but not overly wet. If it is watered too much the leaves may turn yellow. If this happens, allow the plant to dry out for a few days.
  7. The plant should get plenty of sunlight. Help the children move it near a window.
  8. If the leaves turn brown and become fried, there is too much salt in the soil. If this happens, let the water run freely into the pot for several minutes.
  9. When the stem is 12 inches long, cut it back to 6 inches. This will encourage the growth of new shoots.
  10. An avocado makes a good preschool plant. Avocados can grow into a tree from the seed, but can take 7 to 15 years to start producing fruit. The fruit may have a different flavor or characteristics than the one planted

- **Caring for the Plant:**
  
  When preparing the avocado seed for planting, it needs to be in a warm place and be above water. After it is planted in soil it needs a lot of sunlight and adequate water. How does the sun and water help the plant grow? A plant absorbs sunlight and water similar to how we eat food and drink water. If we didn't eat enough healthy food, our bodies wouldn't be able to grow well. Plants need to be fed sunlight and water to grow.
• **A Tasty Recipe:**
Preparation for this activity: Peel and slice an avocado for the kids to taste, make guacamole to serve with tortilla chips. Give the students small pieces of an avocado to taste. Ask them to describe the taste and texture. Avocados have a soft and slimy texture that is mushy. They taste bland, but rich, similar to a potato or a mushroom. Discuss how it is often prepared for eating. Avocados are commonly used to make a guacamole dip or to add flavor to foods like rice, beans, meat, burritos, hamburgers, sandwiches and salads.

Mention the health benefits of avocados. Although an avocado is a fruit, it is high in fat. About 80% of calories in avocados are from fat, but it is mostly health fat. Avocados are a good source of potassium, vitamin B6, vitamin C, vitamin K, copper, fiber, and folate.

For the preschool snack, serve guacamole with tortilla chips.

**Easy Guacamole**

**Ingredients:**
2 avocados
1 small onion, finely chopped
1 clove garlic, minced
1 ripe tomato, chopped
1 lime, juiced
salt and pepper to taste

**Directions:**
Peel and mash avocados in a medium serving bowl. Stir in onion, garlic, tomato, lime juice, salt and pepper. Season with remaining lime juice and salt and pepper to taste. Chill for half an hour to blend flavors.

• **Review**
Review all the components of the lesson plan. Ask the class what they learned about avocados. Answers may include, they are green, grow in tropical climates, taste mushy and bland and are used in a lot of recipes. As they continue to care for the avocado plant, they can remember things they know about avocados and caring for a plant with adequate sunshine and water.

(Walstad, 2012)

**Seed Viewer**

*This activity is appropriate for toddlers up to 5 years, all children enjoy “watching their plants “grow”*

Put a piece of rolled construction paper in a clear plastic cup so that the paper touches all sides of the cup. Stuff crumpled paper towels into the center so that the paper is firm against the sides of the plastic cup. Place 3 to 4 seeds (dried bean or corn seeds from the grocery store work well) in between the plastic cup and the construction paper. Moisten the paper towels. Your seeds should sprout in 4 to 5 days.

An alternative to this activity is to place seeds in closed plastic sandwich bags with wet paper towels. This will also allow you to watch germination.

("Gardening ideas: gardening," 2013)
Slicing Up Summer with Fun Activities Using Watermelon
Written by: Tracey Bleakley • edited by: Sarah Malburg • updated: 1/17/2012

Can be adapted for children of all ages, and can address many areas of interest and involvement

Nothing says summer like a juicy slice of watermelon. These summer activities for preschool children are all about watermelons. Use this favorite fruit to teach and review some important skills and get them excited about the season.

Get the Squeeze on Summer
Celebrate summer with a Watermelon Day and spend the whole day learning about this delicious fruit, or use these ideas along with your other summer lesson plans. Any way you slice it, your preschoolers will have a blast!

Math and Science

Watermelon Explorations
Bring in a watermelon for some fun math and science activities.

Before slicing the watermelon, talk about the rind. What color is it? Do we eat it? Cut the watermelon into slices and give each student a slice on a paper plate to observe. Ask them what they see and what color the inside of the watermelon is. Point out the seeds. Have each student remove the seeds from his or her slice and put them in a small paper cup to be used later. Finally, let them taste the watermelon.

If your students keep a science notebook, have them draw and color a picture of a watermelon slice in it. Tell them to be sure to include the rind, the fruit, and the seeds in their drawings.

Watermelon Math
For an easy math activity, help each child count how many seeds were in their slice. Make a chart or graph with each child's name and the number of seeds they counted. Talk about what they found. Who had the most seeds? The least? The same number?

For other math activities, you can bring in several watermelons of different sizes and put them in order from smallest to largest. Then, weigh them and put them in order again. You could also measure the lengths and widths using nonstandard units of measurement like cubes or standard ones like inches on a tape measure.

Growing Watermelon Seeds
Plant your watermelon seeds and let your preschoolers watch a watermelon plant sprout and begin to grow. Read a book about a plant life cycle like Watermelons (Life Cycles) by Julie Murray when you plant the seed. This activity also goes well with a preschool unit about plants.

(Bleakley, 2012)
This book is a favorite choice for young children and after this lesson they will learn about what plants need to grow.

The Storyline

_The Carrot Seed_ is a classic story about perseverance. When a little boy plants a carrot seed, everyone tells him it won't grow. He continues to care for his seed and eventually he is rewarded with an enormous carrot. It's simple, repetitive text make it a great choice for a read aloud with your kids.

Lesson Preparation

This interactive writing lesson plan doubles as a science lesson on what seeds need to grow.

Materials:
- *The Carrot Seed* by Ruth Krauss
- Chart paper
- Markers
- A large piece of bulletin board paper
- Color paper
- Scissors
- Sentence strips
- Tape or glue

Lesson Procedures

Read the book to the class either as a read aloud or during shared reading. Discuss the story as you read. Some questions to ask are:

- Why do you think everyone tells him the seed won't grow?
- Does he believe them? How do you know?
- What things does the boy do to take care of the seed?
- What do you think the boy and his family learned when the seed finally grew?
After reading the story ask the children to think about what things the seed needed to grow in the story - water, space (not to be crowded by weeds), time. Make a list on a piece of chart paper. Then ask if they can think of anything else plants might need to grow like sunlight and soil. Add any ideas to the list.

Tell the class that they will be working together to make a mural of the story. First brainstorm a list of the things they want to include in the mural, including the things plants need to grow. Some items to include are the characters, the carrot seed, weeds, watering can and water, and the sun. Assign groups of two or three students to make the different objects and characters with markers, glue, scissors and colored paper.

When everyone is finished, arrange the pictures on a large piece of bulletin board paper. Then use interactive writing to make a title for the mural and labels for the different pictures on sentence strips. Above the characters add the dialog, "I'm afraid it won't grow." Glue or tape the text to the mural and display the mural.

Assessment and Evaluation
For an easy assessment, have the children write about what seeds need to grow in their science notebooks or journals.
As a great lesson to further the learning try some of these fun ideas to go with the book The Carrot Seed.
(Bleakley, 2012)

Classroom Seed Book

Since my class has been learning about plants and seeds, I made this Seed Book to place in the science center. The book is made with real seeds, seed packets, and zipper sandwich bags. Since sandwich bags are clear, the children can see the real seeds inside. This will give the children a chance to see real seeds along with pictures of the food or flower they come from. They can compare the variations in colors, sizes, and shapes of the different types of seeds.

Supplies you will need:
• zipper sandwich bags
• packets of seeds
• stapler
• masking tape
• printable cover

How to make the book:
Open a seed packet and pour them into a ziplock sandwich bag. Place the seed packet in the bag along with the seeds so the children will have a picture of the food or flower the seeds come from. The bag opening should be on the left side. Do the same with each type of seed and seal the bags. Print and cut out the book cover and place it in a bag.
The easiest way to assemble the book pages is to line up 3 bags and staple them together on the zipper side. Then, take two sections of 3 bags and staple them together. This will keep the bags from slipping too much when you staple. Six pages (five plus the cover page) are about the right number to staple together (more will be too thick). Make the spine of the book with masking tape, covering the staples so they won't be sharp.
If you have a lot of seeds, you could make more than one book, and could categorize them into groups: vegetable, fruit, and flower. I made one cover which says "Our Seed Book", but also made three other covers: “Our Vegetable Seed Book”, “Our Fruit Seed Book”, and “Our Flower Seed Book”.
("Prekinders creative ideas," 2013)
Parts of a Plant Activities

The plans and activities on the next couple of pages are appropriate for older pre-schoolers, i.e. ages 4 and 5 years old

Plant Parts: Traditional Lesson Design

- Read orally pages 18-25 of Oh Say Can You Seed and discuss.
- Distribute copies of "Roots, Stems, Leaves."

Plant Parts 5E Lesson Design

Engagement Activity:
- Bring a number of whole plants representing agricultural commodities from your area and place them on tables for students to see. One plant should be placed on each table.
- In a large group ask students to take a look at the plants and share observations. Possible plants for use include:
  - Soybeans, greenhouse/nursery plants, cotton, peanuts, sweet potatoes, corn, cucumber, or any other vegetable plant.

Ask attention focusing questions such as:
- How many plant parts does your plant have?
- Can you identify the parts of your plant?
- What time of year do you think your plant was planted?
- How do you suppose your plant is harvested?

Exploration Activity:
- As a group should dissect the plant into specific parts.

Ask explorative questions such as:
- Where on the plant are the parts located? (top, middle, or bottom)
- What are the colors of the different plant parts?
- How many different plant parts can you identify?

Ask elaborative questions such as:
- What do you know about the uses of your plant?
- How/where is your plant transported, processed, marketed, and sold?
- How is your plant beneficial to people and/or animals?

("Classroom activities "oh," )
**Plant Graph Activity**

- During a study of plants, make some predictions about how plants might grow.
- Graph predictions on chart paper.
- Discovered more about these plants through books read in class or through observation whenever possible.
- Point out the facts to the children, but allowed them to discover it on their own. It is inevitable that the children will pick up on the facts by noticing pictures in a book, or watching something grow, or noticing the plant sitting in a field as they drive by.
- It’s also very important to make sure children understand that no prediction is wrong. A prediction is simply a guess when you don’t know for sure.

**Examples from PreKinder.com:**

("Prekinders creative ideas," 2013)

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**Root View Box**

Lay a half gallon milk container on its side or stand straight up and cut off the top. Cut a window out of one of the sides leaving 1/2 inch of carton around the edges. Place a piece of glass or plastic (you can use an overhead transparency sheet) in the box against the window. Secure the plastic with a waterproof seal (waterproof glue or strong tape). Add soil and plant your seeds close to the window. Then water your seeds in and see what happens. Keep your soil moist but be careful not to over-water since you do not have drainage holes. Tilting the box forward will help the roots to grow against the clear side and allow them to be more visible.

("Gardening ideas: gardening," 2013)
**Plants: Have, Need, Give**

Make a list with the class about what plants HAVE, what the NEED, and what they GIVE

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(Eberhart, 2011)

**Parts of a Plant Art Project**

*It’s always appropriate try to find ways to avoid “pre-cut” or “ditto sheets”, this can be changed to make it more “open ended”*

**What you’ll need:**

- Different colored Construction paper
- Different color cut outs of flowers
- Cut outs of leaves and steams
- Brown yarn for roots
- Glue

**Directions:**

1. Teach the kids the different parts of a plant, then have them create their own
2. Cut out different colored flowers and place them in different cups so the kids can choose what color flowers they want
3. Do the same things for the stems and leaves
4. Cut pieces of brown yarn for roots so the kids can grab their own roots
5. Have them glue the piece on another piece of paper and have them label each part

("Plant structures and," 2011)
Center of flower:
Seeds can be glued

Leaves
Example of end Product:

("Biology of plants;," 2013)
This next part would not be appropriate for individual use by the pre-school child, but could be a group effort for older pre-schoolers.

**Parts of a Plant**

1. Spinach is a _________ of a spinach plant.
   - A. Stem
   - C. Flower
   - B. Fruit
   - D. Leaf

2. Which part of a plant produces pollen?
   - A. Seed
   - C. Flower
   - B. Root
   - D. Cell

3. A tomato is a _________ of a tomato plant.
   - A. Stem
   - C. Leaf
   - B. Fruit
   - D. Root

4. Which part of a plant helps keep the plant in upright position?
   - A. Stem
   - C. Sun
   - B. Root
   - D. Branch

5. What makes the color of leaves green? _________
   - A. Chlorophyll
   - C. Oxygen
   - B. Green Paint
   - D. Cells

6. Which of the following is the smallest part of a plant? _________
   - A. Plant seed
   - C. Flower
   - B. Plant cell
   - D. Leaf

http://www.classroomjr.com/plant-life-for-kids/plant-parts-worksheet/

("Plant life for," 2013)
Composting Activities

How to Make Classroom Compost Bins
By Sarah Lipoff, eHow Contributor

Appropriate for pre-school children, however might be difficult due to space, resource, and maintenance issues.

Creating a classroom compost bin is a wonderful way to teach students about conservation, recycling and the environment. There are a couple basic materials needed to create a classroom compost bin and all students can participate. Composting is an environmentally safe way to recycle leftover food items from lunches such as apple cores and bread crusts. A classroom compost bin can be used all year and creates a multitude of classroom lessons from using it for a discussion about decay or the food chain, to using the compost to nourish soil for a classroom garden.

Things You'll Need
- Five-gallon container with a lid
- Drill
- Acrylic paint
- Paint brushes

Instructions

1. Purchase a five-gallon plastic container with a removable lid, such as a storage bin or lidded garbage can to use for the compost container.

2. Drill holes along the bottom of the plastic container as well as up the sides to where the lid will sit. About ten holes are appropriate. This is best done before bringing the container to the classroom.

3. Students can paint the outside of the classroom compost container with acrylic paints. Acrylic paints will stain clothing so make sure to dress for a mess. Allow each student to paint an item on the outside of the bin using nature as a theme.

4. Fill the bottom inch of the container with a small amount of potting soil, dried leaves and sand.

5. With a spray bottle, mist the bottom layer of the compost bin. The classroom compost bin is now ready to use. Position the compost bin in a central location on top of a plate or tray to collect any moisture that drip out of drilled holes.

6. Teach the students what is appropriate to add to the classroom compost bin. No meats, dairy items or glossy magazines are recommended for composting. If an item is larger than a child's hand, it should be chopped up before adding it into the compost.
7. Select students to be in charge of checking the moisture level of the compost daily. If the compost seems dry, mist it with a spray bottle. If the compost appears too moist, shredded newspaper or old classroom papers can be added.

8. Compost needs to be stirred once a week. Use a long stick or spoon to stir the contents of the compost. It is natural for compost to be warm to the touch, which is the energy created by the items breaking down and decaying.

(Lipoff, 1999-2013)

**Soda Bottle Compost**

This simple kid’s science activity uses an empty 2 liter soda bottle and some things you have around your house and yard to teach kids about how compost is made. The clear soda bottle is perfect for keeping on eye on the changes that are happening within your compost and it’s a great way to recycle something that would have otherwise ended up in the trash.

**Supplies Needed:**
- Empty 2 Liter Soda Bottle
- Soil
- Leaves, grass, newspaper, spoiled produce, and anything else you can find in your home or yard that can be composted

**Instructions:**
1. Cut the top off a 2 liter soda bottle and rinse it out well. Remove the label so that you can see everything inside the bottle well.
2. Start with a layer of soil on the bottom and alternate between soil and compostable material. You can use just about any plant matter. We had some peas that were getting mushy in our fridge so we threw those in with some dead leaves, grass, and pine cones. Shredded newspaper would have been great in here too.
3. I set my 6 year old loose in the yard and had him look for anything that came from a plant. Older kids can alternate green matter and brown matter in their compost and experiment with different levels of moisture on the rate of decomposition.
4. When your soda bottle has been filled, add water so it can start composting. You don’t want it to be sitting in water but you do want it to be damp all the way through.
5. Let your compost sit for several weeks in a spot where it will get plenty of sun and won’t be tipped over.

**What is a Hypothesis:**
Even young kids can be introduced to some basic science. After we were done creating our compost soda bottle, my kids and I talked about the scientific method and what a hypothesis is. Brain Pop is a great resource for explaining concepts to kids and they have a really fun video on the scientific method. It is a subscription service but they have a selection of free videos that rotates so you may get lucky, although it’s well worth the subscription.

(Rachel, 2012)
Another Soda Bottle Compost Activity: Science Rocks Website:

Materials Needed:

- 3 two-liter soda bottles - let's call them A, B and C
- one bottle cap
- scissors
- old vegetable or yard scraps (grass, lettuce, leaves)
- soil w/ bacteria and organisms
- water
- tape
- thumb tack

Instructions:

1. Remove the labels from the soda bottles and mark them A, B, and C with your marker.
2. Bottle A: Cut the top off 2-3 centimeters above the top curve and cut the bottom off 2-3 cm below the bottom curve.
3. Bottle B: Cut the bottom off 2-3 cm above the bottom curve.
4. Bottle C: Cut the top off 2-3 cm below the top curve.
5. Punch a lot of holes in one of the bottle caps with the thumbtack and screw it on bottle B.
6. Invert bottle B into bottle C. Tape them together.
7. Tape bottle A to bottle B. It doesn't matter if it's inside or outside of the other bottle.
8. Fill them with all the yucky vegetable and fruit scraps. Don't add any meat or dairy products. Those will only make it smell bad.
9. Be sure to put some soil in there because it contains bacteria, organisms, and fungi that will turn the mixture to dirt. Add enough water to moisten the ingredients.
10. Take the top that you cut off bottle A and tape it to the top of the bottle structure. Screw on the cap. Shake it all up.
11. Use a pin to poke air holes in the compost column. Air will help the ingredients decompose.
12. After 2-3 months you'll end up with nice, rich dirt that you can feed to your houseplants. Yum.

(Taylor)
HOW TO MAKE YOUR OWN WORM COMPOST BIN

Materials Needed:
- 1 12-gallon plastic storage bin (colored NOT clear)
- Electric drill fitted with 1/2-inch drill bit
- Hot glue gun
- Four plastic soda lids
- Newspaper
- Water
- 1 pound of red worms

Procedure:
1. Drill about eight holes into the bottom of the storage bin. Space them out evenly to provide consistent drainage throughout the bin.
2. Glue plastic soda lids to each of the four corners on the bottom of the container. These "legs" will slightly lift the container to allow drainage.
3. Place the storage bin on a flat surface outdoors. The storage bin may remain outdoors when the temperature outside is between 55 and 77 degrees Fahrenheit. Otherwise, place the bin indoors with a tray under it.
4. Shred a newspaper into strips about an inch wide. Fill about two-thirds of the bin with the newspaper strips.
5. Pour six cups of water into the bin and swish the newspaper strips around to fully saturate them.
6. Place the worms in the bin. Allow them to live in the bin for about three days before feeding them.
7. Fill the bin with food waste such as fruits, vegetables, eggshells, tea bags and coffee grounds. Add coffee filters, leaves and other yard clippings as well. Do not add plastic, meat or dairy.
8. Continue to put your food waste into the bin each day. Add new food waste to just a quarter of the bin at a time. Dig halfway down into each section, place the food down in an even layer and cover with the old waste you dug up. Rotate quarter sections each time you feed your worms.

(“Composting for kids;”)
Books GREAT for Composting Discussion

COMPOST BY GOSH
By Michelle Eva Portman

Teenie Greenies: The Little Composter
By Jan Gerardi

Kids Can Compost
By, Wen-Chia Tsai Parker

Ecology Club: Caillou
The magic of Compost

Compost Stew: An A to Z Recipe for the Earth
by Mary McKenna Siddals
illustrated by Ashley Wolff

An Earthworm’s Life
Written and Illustrated by John Himmelman

Great PDF in class Compost Guide:
http://aggie-horticulture.tamu.edu/kindergarden/kidscompost/compostingforkids.pdf
Indoor/ Outdoor Gardening Classroom Activities

Indoor garden shop

Appropriate for older pre-schoolers, 4 – 5 year olds, younger pre-schoolers and toddlers could have these items in/on a sensory table.

After getting your class interested in plants, seeds and flowers, set up this Garden Shop for them. Think about making room in the classroom for this center,

To help kids count money and identify coins, added play money to this center for the children to pretend to buy the items from the Garden Shop.

Add paper, markers, and a keyboard (cash register), so the children can practice literacy and math skills by writing prices and words on receipts.

Some Things to add to shop:

- Silk Flowers
- Seeds
- Children safe gardening supplies
- Watering cans
- Flower pots
- Toy fruits and vegetables
- Add price tags with prices and name of item

(Cox, 2010)

Soda Bottle indoor Carrot Garden

This gardening experiment can also be related to the book “The Carrot Seed” by, Ruth Krauss

What you'll need:

- Three-liter soda bottle
- Carrot seeds
- Soil
- Watering can

Directions:

1. cut the top off of a three-liter soda bottle
2. Fill with soil
3. Planted some carrot seeds, you don’t need many
4. Put in sunny warm place
5. Water when needed
6. Within 65 to 70 days you should produce a handful of three-bite carrot snacks
7. This activity will have the children involved with gardening and producing edible healthy food
8. Have the children observe what’s happening, if the carrots need water etc.

This activity should take a few months but if you can work it into your lesson plans each day it can be very rewarding

(Gasteiger, 2009)
Planting and indoor Herb Garden for Healthy Veggie Dip

Appropriate for all ages (kids love to eat what they grow)

What you’ll need:

- Clear small containers
- Soil
- Seeds
  - Parsley
  - Basil
  - Dill

Instructions:

1. Plant a variety of seeds and keep track of their daily growth.
2. Plant them in clear plastic or glass containers so the roots can be observed.
3. Chart how many days it took each type of seed to sprout.
4. When fully grown use the herbs to make a healthy vegetable dip for fresh veggie. The kids can help make

How to make fresh healthy vegetable dip:

1. Smash and peel 2 GARLIC CLOVES. Place the cloves into the bowl
2. Coarsely chop (that means to chop into big chunks) 1 cup of PARSLEY, and add them to the bowl
3. Cut 4 SCALLIONS into 1-inch pieces and add to the bowl
4. Pick 15 BASIL LEAVES, coarsely chop (that means to chop into big chunks) then add them to the bowl
5. Pour ¾ cup of BUTTERMILK into the bowl (SHAKE WELL BEFORE)
6. Measure and add 1 ½ cups of RICOTTA CHEESE to the mixing bowl
7. Measure and add 1 teaspoon LEMON JUICE to the mixing bowl
8. Measure and add 1 teaspoon of HONEY to the mixing bowl
9. Dump everything into a food processor, or blender, blend for 15 seconds, empty into another container and

serve with NEW, FRESH, HEALTHY Vegetables

Early Sprouts- Seed to Table Website:
http://www.earlysprouts.org/
GREAT resource of gardening and nutrition!
Farming Activities

Arts and Crafts
Food and Farming
Visit from a Farmer
1. First you will need to purchase some whole wheat berries (available at natural food stores.)

2. Then set out a variety of tools that could be used to grind the wheat, such as a mortar and pestle, a grinding mill, or two flat stones.

3. Show your children the whole wheat berries and some whole-wheat flour.

4. Have children compare the two.

5. Explain that the berries are ground into very tiny pieces to become flour.

6. Then let the children experiment with ways to grind the wheat berries into flour.

**Extension:** Use the children’s flour to make whole-wheat bread or muffins.  
(Warren, 2001-2011)

**Great book to introduce for this Activity is:**

**Overview**

One of the best parts of a young child’s day is opening a lunchbox and diving in. But how did that delicious food get there? From planting wheat to mixing dough, climbing trees to machine-squeezing fruit, picking cocoa pods to stirring a vat of melted bliss, here is a clear, engaging look at the steps involved in producing some common foods. Health tips and a peek at basic food groups complete the menu.

*How did that get in my Lunchbox? The Story of Food*

By Chris Butterworth
Easy, Fun Farm Activities

Farm Items

Materials: Place magnifying glasses and items such as feathers, corn feed, hay, etc. for the children to investigate. ("Preschool-plan-it.com farm theme," 2010-2013)

Sheep Products

Appropriate for all pre-schoolers, 3 – 5 year olds.

Provide cotton balls, cotton fabric and wool in a box with magnifiers for the children to check out different products that come from sheep! ("Preschool-plan-it.com farm theme," 2010-2013)

Farm Theme Classroom Visitors

Some ideas for visitors:

Local Farmer
Local Farm Stand owner

Butter Boogie!

Appropriate for all ages (with appropriate supervision)

You will simply need:

- A Little heavy whipping cream
- Salt (optional)
- A container with a TIGHT lid!

Make a Butter Boogie Song Poster so all the kids and sing it while shaking the container until it turns to butter.

Butter Boogie Song:

Shake it UP
Shake it DOWN
Shake it, Shake it, ALL AROUND
Shake it HIGH
Shake it LOW
Shake it, Shake it TO AND FRO
Shake it OVER
Shake it UNDER
Pretty Soon, you’ll have ...

BUTTER!!!

Pass the container to each student and have them shake the container until it turns to butter. Try the creation on wheat bread!

(Michelle, 2011)
Aliki takes readers on a guided tour that begins with grazing cows, proceeds through milking and a trip to the dairy, and ends with some different foods made from milk. This revised edition of Aliki’s 1974 *Green Grass and White Milk* is an even more fun-filled and informative explanation of milk’s trip from green grass, to cow, to a cool glass on the table.

**Book Description**

*Release date: March 31, 1987 / Age Range: 5 and up/ Reading Rainbow Book*

You probably drink milk at almost every meal. But have you ever wondered where it comes from?

Cows eat special feed to make good milk. But after the cow is milked, there are still many steps the milk must go through before it reaches you. This book describes them all. And you’ll be surprised to find how many other things you eat and drink come from milk, too.

Gail Gibbon’s unique style makes this a fascinating book for children and adults alike.

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**The Milk Makers**

By, Gail Gibbons

Read and find out all about eggs -- and how baby chicks grow inside of them. Learn how chicks develop, how they get the food they need to grow, and how a mother hen helps keep them safe in this simple introduction to the life cycle of a baby chick.

**Book Description**

*Where do chicks Come from?*

By, Amy E. Sklansky

Illustrated by, Pam Paparone
Color, Cut and put in Order
Sequencing appropriate for 4 – 5 year olds

(Moor, Life Cycle of Baby Chickens: Sequencing)
Life Cycle of a Chicken Art Project

Sequencing appropriate for 4 – 5 year olds, best with less “completion of activity by teachers”

1. Start by cutting a large egg shape out of a piece of white construction paper (stencils on next page).
2. Print out a little rectangle label from the computer that say, "Life Cycle of a Chicken" or have the students write it so they can practice their writing skills.
3. At the top of the large egg make a small nest with shredded brown construction paper.
4. After the nest is complete, I cut out a small oval shape out of paper and glue it into the nest.
5. Then we discussed how the Mommy Chicken lays on her eggs to keep them the right temperature, while the birds grow inside the egg. Then when they are all grown they begin to hatch out of the egg.
6. Cut out a larger egg out of paper (stencils on next page) then glue it to the poster board. Draw a jagged edge circle on the egg to represent the egg hatching.
7. Use another oval egg shape (from above) to make our baby chick. Color it yellow and glued it on the Large egg. Add googly eyes, and a small orange diamond, folded in half for the beak.
8. Next, make the grown chicken. To make the grown chicken use the red washable paint to use a handprint for our grown chicken.
9. Color on feet and glue a wiggly eye on. I added the finishing touches with markers.

(Rachel, 2011)
Life Cycle of a Chicken
Honey Cookie Class Activity

Honey Cookies
Meredith Hooper
Illustrated by Alison Bartlett

Book Description
For young Ben, nothing is better than his grandmother’s honey biscuits. But what exactly goes into making this special treat? Grandma decides it’s a good time for Ben to find out. When he learns how to make honey biscuits, he doesn’t just find out how to bake biscuits, he also discovers where all the ingredients in the recipe come from and whose help he really needs. Alison Bartlett’s warm, vibrant illustrations accentuate Meredith Hooper’s simple, lively text. Including an easy recipe for honey biscuits, this is a perfect introduction to food and cooking for very young readers.

Read “Honey Cookies” by Meredith Hooper
Talk about the different ingredients that made up the Honey Cookies that young Ben and his grandmother made.

Ask questions:
- Where did the butter come from?
- Where did the sugar come from?
- Etc.

The book also has a recipe in the back to make the sugar cookies. I have typed it out below.

Honey Cookies:
To make honey cookies you need:
- ½ cup butter
- 2/3 cup sugar
- 2 tablespoons honey
- 1 egg yoke
- 1 level teaspoon cinnamon
- 1 ¾ cups self-rising flour
  - Beat the butter and sugar together in a bowl until they are creamy. (you can use an electric mixer)
  - Next, beat in honey, then the egg yolk
  - Add the cinnamon and flour and mix into a soft dough. If the dough is sticky, add a little more flour.
  - Shape about a teaspoon of dough into a ball, roll it in a little extra sugar and cinnamon, and put it on a greased cookie sheet. The mixture should make 30 cookies.
  - Put the biscuits (cookies) into the oven heated to 350 F for 12 to 15 minutes.
- The cookies are ready when they are golden-brown. Take the cookies out of the oven, let them settle for a few minutes, and then put them on the rack of plate to cool.
  (Hooper & Bartlett, 2005)
Extra Tips:
- This is a great math and science lesson. The children are using measurements and seeing how different ingredients interact with each other to make a cookie.
- Children are also using gross and fine motor skills.
- Possibly make one batch together, as a class, and make extras so the children can take home and share with their families. Pass out a copy of the Honey Cookie recipe.

Book Description
Based on the nursery song "Over in the Meadow", this is a colorful picture counting book containing activities for young children to join in with. It introduces baby animals in their natural environments, teach children to count from one to ten, and to learn about colors.

Farm Color Games
"Matching Game" appropriate for 4 – 5 year olds

Make a color card game for your children to play with

Using 16 cards draw a simple object on each card. You will need:
  2 red objects – such as an apple and a hen.
  2 green objects – such as a bean and lettuce.
  2 yellow objects – such as corn and a baby chick.
  2 blue objects – such as blue berries and a truck.
  2 brown objects – such as a horse and a duck.
  2 white objects – such as an egg and a goose.
  2 orange objects – such as a pumpkin and a flower.
  2 purple objects – such as grapes and an eggplant.

Color the objects, and then give the cards to your children to play games such as, Go Fish or Concentration or a simple sorting game.
(Jean, 2001-2011)
**Applesauce (good for all ages)**

**Book Description**
Apple cider, applesauce, apple muffins, cakes, and pies! Annie is a very busy apple farmer. She bakes yummy treats with the apples she picks and saves her best apples to sell at the market. Follow Annie through her apple-filled day of picking, counting, sorting, baking, and selling, and then try making some of her simple apple recipes.

**Apple Farmer Annie**
By Monica Wellington

- This is a great way to use local produce during the fall!
- Read “Apple Farmer Annie” by Monica Wellington and discuss what Annie does as an apple farmer.
- Bring in different kinds of local apples for the kids to try
- Talk about how they grow, show the seeds
- After the lesson, make one of Annie’s delicious treats OR make Easy Applesauce with your students

**Ingredients:**
1. 4 Apples - peeled, cored and chopped
2. ¾ cup of water
3. ¼ cup white sugar
4. ½ teaspoon ground cinnamon

**Directions:**
In a saucepan, combine apples, water, sugar, and cinnamon. Cover, and cook over medium heat for 15 to 20 minutes, or until apples are soft. Allow to cool, then mash with a fork or potato masher!
(Sarah, 2013)
Nutrition Activities

Cooking
Trying New Healthy Foods
How to read a Food Label
Grocery Shopping Tour
General Nutrition Tips
When doing Nutrition Activities with Pre-Schoolers/Young Children

By, SNAP- Ed Nutrition Coordinator

Bryony Kean

From Coastal Healthy Communities

a. Kids can be adventurous eaters, but even the bravest of food tasters can become unsure when they don’t know what is in front of them. When serving cut up fruit to young children, be sure to have whole versions of the fruit available for them to see and touch. Encourage children to come up with words to describe the smell, feel, and taste of new foods.

b. When offering new foods at snack and meal time, make sure there is a familiar food on the plate as well so children don’t feel like they MUST try a new food.

c. Don’t be discouraged if a child is unwilling to try a new food. Children often need to see a food several times (up to 15 times!) before they are comfortable with it.

d. Try reading books and doing classroom activities that introduce new foods prior to meal time. This can help kids get interested in trying a new food.

Bryony’s Nutritional Book List for Child Care:

- *Eating the Alphabet: Fruits and Vegetables from A-Z* by Lois Ehlert
  Description: Book focuses on fruits and vegetables from around the world. A glossary is provided with facts about each food. Suitable for ages: 2-8 years.

- *The Vegetables We Eat* by Gail Gibbons
  Description: Picture book with information about vegetables. Suitable for ages: 4-8 years.

- *C is for Cooking: Recipes from the Street* by Susan McQuillan, MS, RD
  Description: This cookbook includes recipes that introduce young children to new foods as well as expose them to basic cooking techniques. Characters from Sesame Street introduce each recipe and share facts about the food. Suitable for ages: 2-5 years.

- *Early Sprouts* Cookbook by Karrie Kalich, PhD, Lynn Arnold, RD, LD, Carole Russel
  Description: This cookbook features 73 child-tested recipes for healthy meals and snacks to prepare in preschool settings. Nutrition information, food safety procedures, tips for cooking with children, and colorful photographs of completed recipes are included. Suitable for ages: 2-6 years.

Cooking Activities:
Please, use the recipes in the other sections as cooking activities.
Creating Your Own Aprons:
Appropriate for 5 year olds

Make yourself a paper apron just like the kind a real chef wears.

- **Age Guideline:** 5 Years and Up
- **Time Required:** 20 minutes *(Does not include drying time)*

The above age and time guidelines are estimates. This project can be modified to suit other ages and may take more or less time depending on your circumstances.

**Materials Needed:**
- Paper Grocery Bags or Butcher Paper
- String or Yarn
- Cellophane Tape
- Crayons, Markers, or Paint
- Scissors
- Hole Puncher

**Instructions:**

1.) You start out with a large grocery paper bag. You cut down the side creases leaving both sides on.
4.) You flip the bag so then the bottom of the bag is on top and the back of the bag is on bottom.

5.) Draw four small dots on the corners of the apron as shown by the black dots in the picture here. For added strength, put a piece of tape over the dots you drew on both sides of the paper. Use a hole puncher to punch a hole where each dot is.

6.) Cut four pieces of string that are long enough to tie around your neck and around your waist. Tie one end of each piece of string to each of the holes you punched. Personalize your apron using crayons, markers or paint and then wear it with pride!

7.) If the apron ends up being too big feel free to cut/adjust until it fits the student

(Osborn, 2013)
How to Make your Own Reusable “MyPlate”
Sequencing appropriate for 4 – 5 year olds

**Supplies:**
- White **GLASS** Dollar Store Plates (flat, try and get some without curved edges, easier to draw on)
- Different color Sharpies

**Directions:**
1. Simply color on the plates anyway you would like (try and make a template of “MyPlate”. ) Be sure to use glass plates so they don't melt in the oven. You can do this with mugs too!
2. Bake at 350 degrees for about 30 minutes. That will 'set' the Sharpie a bit more than normal so you can actually use them. Be sure to let them cool completely before use or you'll have Sharpie tinted food.

("How to make," 2012

("Printable materials &," 2013)
Let's Go! is a nationally recognized childhood obesity prevention program designed to increase healthy eating and active living in children from birth to 18. Let's Go! Works in six sectors (schools, early childhood, after school, healthcare, workplace and community) to reach children and families where they live, study, work, and play. Let's Go! is centered on the common message of "5-2-1-0":

- 5 or more fruits & vegetables.
- 2 hours or less recreational screen time.
- 1 hour or more of physical activity.
- 0 sugary drinks, more water & low fat milk.

*Keep TV/Computer out of the bedroom. No screen time under the age of 2.*

("Let's go Androscoggin!," 2013)

5-2-1-0 Goes to Child Care is a program of Let's Go! The program focuses its work around the tools developed by Let’s Go!, Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC), and Let’s Move!. Through the use of the 5-2-1-0 strategies listed below, NAP SACC’s 5-step intervention process, and the Let’s Move! Child Care Checklist, child care programs can address the policies, practices, and environments that influence healthy lifestyle behaviors.

In addition to a toolkit, this program provides free continuing education workshops for staff, and guidance and assistance to support the child care programs in the adoption of the 10 strategies.

1. Provide healthy choices for snacks and celebrations; limit unhealthy choices.
2. Provide water and low fat milk; limit or eliminate sugary beverages.
3. Provide non-food rewards.
4. Provide opportunities for children to get physical activity every day.
5. Limit recreational screen time.
6. Participate in local, state, and national initiatives that promote healthy eating and active living.
7. Engage community partners to help support and promote healthy eating and active living at your site.
8. Partner with and educate families in adopting and maintaining a lifestyle that supports healthy eating and active living.
9. Implement a staff wellness program that includes healthy eating and active living.
10. Collaborate with Food and Nutrition Programs to offer healthy food and beverage options.

For more information, contact Van Beckman at 207-283-7919, or email cr.nvb@smmc.org.

("5-2-1-0 goes to," 2010-2012)
Teaching Kids how to Eat a Rainbow
Great for Picky Eaters and getting them to try NEW, HEALTHY Foods
Can be adapted to be appropriate for all ages, you could build the next few pages in a “rainbow week”

Here is a very basic run down on each color group and how it helps our bodies:

**Red:** Very heart healthy and gives strength support to our joints!
**Orange:** A great source of Vitamin C. The orange group helps keep our eyes healthy!
**Yellow:** This group is good for our skin and helps our digestive system!
**Green:** Helps our entire body and strengthens our immune systems which means less colds!
**Purple:** Purple/blue foods are excellent for our brains! They help us with our memory and also help keep some cancers away!

("Why eat rainbows?," 2009-2013)

Create Days to Try Eating New Fruits and Vegetables Using the “Eating the Rainbow” Model:

- Make different stations around the room with plates of new, fresh, healthy foods
- Makes sure no one is allergic to anything before buying the foods
- Use the “Real Food Rainbow Passport” handout from “Today I Ate a Rainbow” website. I have included it in this booklet.
- Get a fun fruit or veggie stamp or stickers and when each child tries a new food, stamp or give them a sticker on their passport
- At the end give each child a “Way to Grow” Certificate. These can also be found on the “Today I Ate a Rainbow” website. I have also included it in this booklet. You can also create your own.

("Food revolution day," 2009-2013)

Examples of foods for this activity:

**Red:**
- Watermelon
- Guava
- Pink Grapefruit
- Red Pepper
- Red Raspberries
- Strawberries
- Red Apples
- Sweet Cherries
- Cranberries
- Fresh Tomato

**Orange:**
- Oranges
- Sweet potatoes
- Apricots
- Pumpkins
- Mangos
- Carrots
- Nectarines
- Squash
- Papayas

**Yellow:**
- Lemons
- Apricots
- Yellow bell peppers
- Golden delicious apples
- Pineapple
- Mangoes
- Yellow squash

**Green:**
- Arugula
- Cucumbers
- Kale
- Zucchini
- Broccoli
- Green Beans
- Kiwi
- Asparagus
- Brussels Sprouts
- Green Leaf Lettuce
- Mustard Greens
- Turnip Greens
- Cabbage
- Green Peas
- Avocado
- Celery

**Blue/ Purple:**
- Eggplant
- Blackberries
- Plums
- Prunes
- Purple Grapes
Build a Food Rainbow!

Super simple, yet fun and very visual activity
1. Draw or find pictures of different fruits and veggies
2. If you drew them or found pictures you can color and cut them out.
3. You can even go through the new paper advertisements and cut pictures out of fresh fruits and vegetable for this activity
4. Cut out six large circles from rainbow cardstock colored paper and taped them on a wall
5. Put tape on the back of each fruit and vegetable
6. Ask the kids to name the food, if it is a fruit or vegetable, and what color it is.
7. After answering the questions have your preschoolers put the fruit or vegetable in the right colored circle corresponding with the food

(Rainbow Fruit Kabobs:

**Ingredients:**
- Red: Strawberries, Raspberries, Watermelon or Cherries
- Orange: Oranges, Tangerines low-starch (Mangos only if ripened naturally/higher starch-Cantaloupe)
- Yellow: Yellow Watermelon, Pineapple
- Green: Kiwi, Green Grapes, Honeydew Melon
- Blue: Blueberries, Blackberries
- Purple: Grapes

**Directions:**
1. Clean and cut fruit separate in different containers
2. Give each preschooler a kabob stick
3. Have them build a fruit kabob rainbow

("Rainbow fruit kabobs," 2012)

(Rainbow Veggie Kabobs:

**Ingredients:**
- Red: Cooked beets, radishes, cherry tomatoes
- Yellow/Orange: Carrots, Yellow squash, yellow pepper, sweet potato
- Green: Broccoli, Steamed Brussels sprouts, spinach, Blue/ purple: purple cabbage, red onion, cooked (grilled) eggplant

**Directions:**
1. Clean, cut and cook (optional) veggies
2. Put in separate containers (its ok to have the cooked veggies cold when you serve them, it’s just easier to eat and put in the kabob)
3. Give each preschooler and kabob stick; have them build a veggie kabob rainbow!

Fresh Fruit with Cinnamon Yogurt Dip

**Yield:** 4 servings

**Ingredients:**
- 1 apple
- 1 orange
- 1/4 cup orange juice
- 1 cup vanilla yogurt
- 1/2 teaspoon cinnamon

**Instructions:**
1. Core and slice the apple.
2. Slice banana into thin circles.
3. Peel the orange and break it into sections.
4. Pour the orange juice into a small bowl.
5. Dip the fruit pieces into the orange juice to prevent browning.
6. Arrange on a plate.
7. Mix the yogurt and cinnamon in a small bowl.
8. Put the bowl of yogurt and cinnamon next to the fruit. Use it as a dip for the fruit
Healthy Cookbook for Kids

Rainbow Bites

This cookbook contains kid-tested recipes for breakfasts, lunches, dinners, soups, salads, breads, snacks, and desserts. Includes illustrations for basic cooking and easy to understand directions for recipes. Also includes a printable game that is fun to play while learning about healthy eating and living!


("Today i ate," 2009)
The Rainbow Cookbook uses recipes and activities to introduce children to the Rainbow concept of nutrition. The Rainbow Program teaches young children simple ways to maintain a healthy lifestyle. It encourages convenient daily changes that lead to sustainable health improvements. The program’s core message is: “Rainbow foods are healthy”. This maxim highlights the concept that richly colored, natural foods are necessary components of good health and should be consumed daily. The Rainbow Cookbook involves an interactive curriculum to encourage children to implement healthy habits when choosing snacks and meals. All of us, young and old, should eat Rainbow Foods regularly. The Rainbow Program targets children, but its ultimate goal is to reach entire families by encouraging adults and kids to shop together and cook together. The program is intended to improve the health of all ages, starting with the young. By working together, the generations can learn from each other, having fun in the process of nourishing their bodies.

http://www.amazon.com/Rainbow-Cookbook-kids-Gillian-Graham/dp/145675209X/ref=sr_1_1?ie=UTF8&qid=1368207337&sr=8-1&keywords=the+rainbow+cookbook+for+kids

**Smoothie:**

**Ingredients**
- 1 medium banana
- ½ cup ice cubes (3-4)
- 1 cup low-fat plain yogurt
- ½ cup 100% orange juice
- 4 frozen strawberries (substitute about ½ cup of any fresh or frozen fruit)

**Directions:**
1. Peel banana and place in blender
2. Add remaining ingredients to blender. Cover and blend until smooth.
3. Pour and Enjoy!
5 a Day the Easy Way
This activity is to introduce another way to find serving sizes of fruits and vegetables

1 handful=1 serving size
Demonstrate this with your preschoolers:

Example:
- If an 1 whole orange fits into your hand that is a serving of 1 fruit
- If you only have a half of that orange that equals a half serving
  1.) Pass out this worksheet and have your preschoolers
- Each circle represents a full serving of a fruit or vegetable. The center line allows for half servings. Sometimes little eaters have half a serving of a fruit so they get to color in half.
- Color them in? What colors you might ask?
- Purple/Blue: blackberries, blueberries, plums, purple grapes, purple asparagus, purple endive, purple peppers, purple carrots, eggplant
- Green: avocados, green apples, green grapes, honeydew, kiwi, limes, pears, artichokes, broccoli, Brussels sprouts, green beans, cabbage, celery, cucumbers, leafy greens, leeks, okra, peas, green peppers, snap peas, spinach, zucchini
- Yellow/Orange: yellow apples, apricots, cantaloupe, grapefruit, lemons, mangoes, nectarines, oranges, papaya, peaches, persimmons, pineapples, tangerines, butternut squash, carrots, yellow peppers, pumpkins, rutabagas, sweet corn, sweet potatoes, yellow squash
- Red: red apples, cherries, cranberries, red grapes, pink grapefruit, pomegranates, raspberries, strawberries, watermelon, beets, red peppers, radishes, radicchio, red onions, red potatoes, rhubarb, tomatoes
("5 a day," 2011)
### 5 Or More A Day! Eat Colorfully!

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("5 a day," 2011)

courtesy of TheTrainToCrazy.com
Chef Solus Introduces Mr Food Label Coloring Sheet

You find him on all foods except for fresh foods like fruits and vegetables because we already know its healthy!

You will also find him on cans like canned fruits.

Look for him on cartons and frozen foods!

Meet my friend Mr. Food Label. He helps you pick foods your body will love!

You will find him boxes like cereal and crackers!

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("Nourish interactive: Chef," 2013)
Making a Rainbow Pizza

Ingredients:

1. 1 (13.8 oz tube) Pillsbury Artisan Pizza Crust or readymade whole wheat pizza dough
2. 4 Tablespoons of Jarred pesto (you can make it yourself also) Pesto sauce normally has nuts and cheese in the ingredients, make sure none of your students are allergic
3. 5 Purple Fingerling potatoes, Diced
4. 1 Tablespoon of extra-virgin olive oil, plus more for drizzling
5. $\frac{1}{2}$ green bell pepper, diced
6. $\frac{1}{2}$ yellow squash, sliced
7. $\frac{1}{2}$ orange bell pepper
8. 1 cup halved cherry tomatoes
9. 1 Pinch of coarse salt and freshly ground pepper

Directions:

1. Preheat oven to 400 degrees
2. Toss the potatoes with tablespoon of oil arrange on baking sheet. Season salt and pepper and roast for 20 minutes
3. Roll the pizza crust out on a flat surface. Evenly spoon the pesto over the crust in the shape of a Rainbow
4. Arrange the vegetables in the order of the colors of the rainbow. The potatoes will go at the bottom, followed by the green diced peppers, then the yellow squash, followed by the orange diced peppers, and finally the halved cherry tomatoes as the very top color. Using a paring knife or pizza cutter, cut away the extra piece of dough, creating the rainbow shape for the pizza. Season lightly with salt and pepper
5. Place back in the oven and bake another 20 minutes, until the veggies have softened and the tomatoes wilted
6. Drizzle with a little more oil and serve immediately

(FevCooks, 2013)

Fiesta Rice Salad:
Yield 4 Servings

Ingredients

- 1 cup brown rice (cooked)
- 1 carrot (shredded)
- 1 cup broccoli (chopped fine)
- 1 red onion (small, chopped)
- 1 cup tomato (chopped)
- 1 bell pepper (sweet, green, red, yellow)
- 1 can kidney beans (15oz, drained, rinsed)
- 2 tablespoons cilantro (other fresh herbs)
- (chopped fine)
- 2 tablespoons red wine vinegar (or white or cider)

Instructions

1. Wash and chop vegetables and mix with cooked rice.
2. In a small bowl, add vinegar, oil, dill, salt and pepper. (Or use your favorite dressing.) Pour over rice mixture.
3. Add beans and toss well. Serve cold and enjoy!

Cost:

- Per recipe: $3.20
- Per serving: $0.80

Source: Connecticut Food Policy Council, Farm Fresh Summertime Recipes

Notes

- Use your favorite vegetables- zucchini, summer squash, corn, greens, kohlrabi, cabbage or string beans. Use frozen or canned when fresh is unavailable. Grate, chop, cut into small thin strips for different shapes.
- Be creative! Try different vinegars -- cider, red or white wine, balsamic, rice or white – or flavored vinegars.
- Use low calorie salad dressing and leave out the vinegar and oil.
- Try a squeeze of lemon or lime juice in place of vinegar!
Healthy Food Hunt:

Sequencing appropriate for 4 – 5 year olds at the “art table” Parents can also be involved in discussion by donating flyers etc.

Getting your child to eat fruit and vegetables can be a chore. This activity teaches her that certain foods are healthy and helpful for her body, and moreover, they taste good too! Your preschooler can scour the grocery ads, cut out foods, and make a healthy meal on a paper plate. As a side benefit, using scissors will help her motor skills as she learns to master this tool for kindergarten.

What You Need:

- Grocery ads
- Scissors
- Glue stick
- Paper plate

What You Do:

1. Have your child cut out pictures of many different kinds foods from the grocery ads.
2. Explain to your preschooler that fruits, vegetables, milk products, grains, and meat are healthy and help our bodies grow and be strong.
3. Help your child hunt through the cut-out foods and have her place the healthy foods in one pile and the non-healthy foods in another. As she does this, you can also reinforce vegetable and fruit names with her.
4. Ask your child to make a healthy dinner on a paper plate by picking some foods from the healthy foods pile and gluing them onto the paper plate to make a complete meal. She can even make extra healthy plates for other members of the family.
5. Talk to her about the choices she makes and ask her questions about why she thinks her meal will be nutritious and delicious. Feel free to help her if she needs some guidance. When she's finished, she'll have "prepared" her very own healthy meal without dirtying a single pot or pan!

She can keep the healthy meal plates she's made to use for make believe games or to hang in the kitchen to help remind her of foods that are good for her. Hopefully, when it comes time to eat, your preschooler will recognize the different healthy foods on her plate, eat them, and know it’s helping her body to grow!

(Cho, 2006-2013)
Hannaford: Dietitians & FREE Classes/ Demos

VISIT:

http://www.hannaford.com/content.jsp?pageName=HLClasses&leftNavArea=HealthLeftNav

The website offers:

- Ask our online dietitian: Kris Lindsey
- Chat live every Wednesday at noon with Kris on Hannaford’s Facebook page

Information about FREE nutrition demos & classes in our stores:

- Did you know that Hannaford offers FREE nutrition demos & classes across New England and New York, covering numerous topics, from Eating for Healthy Blood Sugars to Prenatal Nutrition, and just about everything in-between?
- Our demos & classes are fun, interactive, and come with food samples to give you an idea of how delicious healthy eating can be! All demos & classes are FREE, taught by a registered or certified dietitian, and often include handouts, food samples, recipes, and a store tour. Some advanced registration may be necessary.
- Hannaford Dietitians also offer special health store tour for scout troops, community groups and small businesses. To sign up, please download the schedule below for your area and call the number listed.

("Hannaford health & nutrition," 2013)

Where to find healthy food in the Supermarket

Appropriate for 4 – 5 year olds

What you’ll need:

- A large layout of a supermarket (I have one on the next page)
- Have a few smaller layouts for small group activity
- Cut outs of healthy foods and non-healthy foods
- Type and/or glue

Directions:

1.) Create a large layout of a supermarket. Label each section and explain to your class how most of the healthier foods are located on the edge of the store
2.) Put your class in smaller groups (you can have has many as two or five, depending how your class works.) Give them an envelope of cut out healthy and non-healthy foods from food fliers
3.) Tell them to glue or tape the foods in the right areas of the store.
4.) After the activity is done ask them where they put the food and why.
Avoid this area most of the time.

Shop here for things such as high fiber cereal, natural peanut butter, nuts, dried fruit, and canned beans.

("Grocery shopping," 2013)
Resources:


Food revolution day & today i ate a rainbow. (2009-2013). Retrieved from https://www.todayiatearainbow.com/resources/real-food-rainbow-event/


Featured Story Book

An Earthworm's Life (page 29)
Written and Illustrated by John Himmelman

Apple Farmer Annie (page 44)
By Monica Wellington

Caillou, The Magic of Compost (page 28)

COMPOST BY GOSH! (page 28)
By Michelle Eva Portman

Compost Stew an A to Z Recipe for the Earth (page 29)
By Mary McKenna Siddals
Illustrated by Ashley Wolff

Honey Cookies (page 42 and 43)
By Meredith Hooper
Illustrated by Alison Bartlett

How did that get in my Lunchbox? The Story of Food (page 34)
By Chris Butterworth
Illustrated by Lucia Gaggiotti

Kids can Compost (page 28)
By Wen-Chia Tsai Parker

Milk from Cow to Carton (page 36)
by Aliki

Oh Say Can You Seed? All about Flowering Plants (page 3 and 17)
By Bonnie Worth
Illustrated by Aristides Ruiz

Over on the Farm a Counting Picture Book Rhyme (page 43)
By Christopher Gunson

Teenie Greenies The Little Composter (page 28)
by Jan Gerardi

The Carrot Seed (page 15)
Story by Ruth Krauss
Pictures by Crockett Johnson

The Milk Makers (page 37)
By Gail Gibbons

The Rainbow Cookbook for Kids (page 55)
Created by Gillian Graham
Illustrated by Anna Oliver

The Tiny Seed (page 11)
By Eric Carle

Where do Chicks Come From? (page 37)
By Amy E. Sklansky
Illustrated by Pam Paparone
Healthy Pre-School Story Book List for Additional Lessons
(Not Featured in Activity Booklet)

- Good Enough to Eat
  By Lizzy Rockwell
  (Age Range: 4-8 years)

- A Day at the Market
  By Sara Anderson

- The Vegetables We Eat
  By Gail Gibbons

- Growing Vegetable Soup
  Written and Illustrated by Lois Ehlert
  (Age Range: 4-8 years) Can be used for gardening and nutrition

- Eating the Alphabet
  Written by Lois Ehlert

- Gregory, the Terrible Eater
  By, Mitchell Sharmat
  Illustrated by Jose Aruego and Ariane Dewey
  (Age Range: 4-8)

- From the Garden, A Counting Book About Growing Food
  Written by, Michael Dahl
  Illustrated by Todd Irving Ouren
  (Age Range: 3 and up)

- Up, Down, and Around
  Written by, Katherine Ayres
  Illustrated by Nadine Bernard Westcott
  (Age Range: 2-5)

- Tops & Bottoms
  Written by, Janet Stevens

- How a Seed Grows
  Written by, Helene J. Jordan
  Illustrated by Lorette Krupinski
  (Age Range: 4-8 years)

- One Bean
  Written by, Anne Rockwell
  Illustrated by, Megan Halsey
  (Age Range: 3-6 years)

- Growing Vegetable Soup
  Written by, Lois Ehlert

- Good Enough to Eat : A Kid's Guide to Food and Nutrition
  Written by Lizzy Rockwell
Allie Hopkins joined Partners for a Hunger-Free York County through the AmeriCorps VISTA program in April 2013. In this role, she was able promote and educate healthy foods including local fruits and vegetables for pre-schools and child cares around York County though fun, free activities. Allie graduated from the University of Maine in Farmington in central Maine, where she studied public health and nutrition. Through all her studies, during her four-year of college, she grew a passion for developing programs for communities in need especially with nutrition.

Through many years of volunteering in local community projects she was able to use her passion and education in public health. It took Allie a few years, after graduating, to find the AmeriCorps VISTA program but after finding the Partners for a Hunger-Free York County Healthy Preschool Project position she was able to use her education for something that she was truly empowered by.

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Allie Hopkins
Partners for a Hunger- Free York County AmeriCorps VISTA
Healthy Preschool Project Coordinator

This Healthy Preschool Teachers’ Guide is brought to you by Partners for a Hunger-Free York County with cooperation by Child Care Services of York County and AmeriCorps Maine VISTA Project
Special Thanks to...

Bethany Fortier  
*CTG Coordinator,*  
*York District University of New England*

Bill Hagar  
*Executive Director,*  
*Child Care Services of York County*

Bonnie Lambert  
*CareLink Director*

Bryony Kean  
*SNAP-Ed Nutrition Coordinator*  
*Coastal Healthy Communities*

Katie Crowley  
*Child Care Services of York County*

Kristine Jenkins  
*Coordinating Director*  
*Partners for a Hunger Free York County*

United Way of York County

University of Maine  
*Cooperative Extension*  
(Springvale)

Van Beckman  
*Let’s Go! Coordinator*  
*Southern Maine Medical Center*