Acknowledgements

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Introduction

When children are given the chance to practice skills related to food during the early years, they acquire tools and experiences that can lead to a lifetime of healthy food choices. Madison Children’s Museum’s Let’s Grow! outreach program offers opportunities for children to build strong food foundations and healthy eating habits while learning through play. The exhibit creates a supportive environment that contributes to social, cultural and biological factors related to food. Let’s Grow! provides children with relevant opportunities for connected learning by presenting them with focused experiences to explore food as it travels from the garden, to the market, and to the table. As children interact with exhibit components, they learn about choosing foods that are beneficial to their well-being. The exhibit engages children in multi-disciplinary activities that extend their learning and help them make more informed decisions about what they eat.

Let’s Grow! is designed to promote nutrition education while providing children with opportunities to explore healthy foods. As children investigate seeds, they make connections from plants to the foods they eat. When children plant and grow vegetables in the garden, they obtain an appreciation for food diversity and learn about cycles and processes. As children play in the market cart, they initiate interactions, play cooperatively and enhance social-emotional development. They gain an increased understanding of math concepts while creating patterns, sorting, counting, sequencing, and categorizing the food. Children develop problem-solving skills when they do puzzles and play games. Early literacy experiences are expanded as young children interact with literacy materials related to food, nutrition and gardening. Children develop questions, make observations and predict outcomes as they explore and compare vegetables and fruits. They cultivate a growing acceptance of cultural diversity when they are exposed to similarities and differences among people and foods in their communities and around the world. This exhibit helps children construct meaning from their experiences and develop a growing awareness of healthy food choices.

The Teacher Resource Guide provides activities that enhance the museum’s Let’s Grow! outreach program. The guide includes recipes for healthy snacks and expands the curriculum to introduce activities in art, math, science, music, and literacy. These activities support early learning standards and provide children with opportunities to build a framework that will help them make informed decisions about what they eat.
Science Activities

Science activities present children with direct experiences to investigate materials, events, and ideas that play an important role in later learning. When children are provided with opportunities to explore, they develop theories and piece together thoughts and experiences that help them make sense of the world around them. These activities give children opportunities to make predictions, examine questions, share observations, and draw conclusions from their discoveries. Children will increase their understanding of cycles and plant processes. As children explore the science activities, teachers should raise questions and encourage children to reflect on and document their findings to enhance inquiry-based science classroom curriculum.

Absorbing Color

MATERIALS
Carnation, daffodil or celery stalk
Clear jar
Food coloring
Water
Observation sheet (see Activity Templates)

ACTIVITY
Invite children to predict what will happen if you put a plant in colored water. Document their predictions on the observation sheet. Place the plant in colored water and observe it in a couple of hours, at the end of the day and the next morning. What happened to the plant?

CONCLUSION
The veins of the plant absorbed the colored water. The water traveled to other parts of the plant to make it change color.

GOAL
Children will learn cause and effect and gain a deeper understanding of how plants absorb food. They will become comfortable making predictions and observations.
**Bulbs in Water**

**MATERIALS**
- A glass or plastic jar
- Water
- Toothpicks
- Bulb (onion, hyacinth, tulip, daffodil)

**ACTIVITY**
Stick toothpicks into four sides of the bulb. Place the bulb over a glass of water so that the top is sticking out of the water and the bottom is immersed in the water. Let the bulb sit in the water for a couple of weeks. Have children observe the roots as they emerge out of the bottom of the bulb. Children will notice green shoots coming out of the top.

**GOAL**
Children will learn to make predictions and observations. They will develop a growing awareness of natural cycles and processes.
Bean Sprouts

MATERIALS
Sprouting seeds: lentils, radish, alfalfa, peas, broccoli, or clover
Wide mouth jar
Screen or netting
Rubber band
Bowl to drain jar
Fresh water

ACTIVITY
Sprouts have been grown and eaten for over 5,000 years. They are rich in vitamins and contain almost no fat. When people think of sprouts, they generally picture sprouts made from alfalfa or clover seeds. However, pea and lentil sprouts are high in protein and can be eaten raw or cooked.

To make sprouts:
1. Put 1-2 Tablespoons of seeds or 3-4 Tablespoons of beans into a jar
2. Cover with netting or cheese cloth and secure it with a rubber band
3. Rinse seeds or beans a couple or times then fill the jar ¾ full with water
4. Soak 6-8 hours or overnight
5. Drain and rinse 2-3 times daily
6. When seeds begin to sprout, place jar in bright light
7. Wait 3–7 days for sprouts to grow
8. Eat raw sprouts when finished

GOAL
Children will learn about cycles and processes related to food production. They will gain observation skills.
Grass Hair Critter

MATERIALS
Old sock
Grass seed
Potting soil
Scissors
Yarn
Paper cup
Water

ACTIVITY
Cut the foot off of an old sock. Put in a tablespoon of grass seeds, and then fill the rest with potting soil. Tie a piece of yarn onto the opening. Decorate the sock so that it looks like a critter, animal or person. Place the sock (grass seed side up in a paper cup. Water the sock. In about seven days, grass will sprout. Children can cut the hair with scissors or let it grow long.

GOAL
Children will understand the growing cycle from seed to sprout. They will increase their understanding of natural cycles and processes.
**Herb Vinegar**

**MATERIALS**
- Small bottles or baby food jars with lids
- White vinegar or wine vinegar
- Fresh herbs: choose from rosemary, basil, thyme, mint, oregano
- Cup
- Funnel

**ACTIVITY**
Give each child a bottle or jar, and let children choose a few sprigs of an herb from the table to put in their jars. Use paper cups and a funnel to fill the jar with vinegar. Let the jars sit for a week. The vinegar will take on an herbal flavor. Send it home or use it for salad dressing.

**GOAL**
Children will learn math concepts as they measure and pour ingredients. They will learn to make predictions and observations.
Planting Popcorn

MATERIALS
- Popcorn (unpopped)
- Soil
- Water
- Small cups

ACTIVITY
Popcorn is a variety of seed that comes from corn. Give each child a paper cup to scoop soil, filling the cups halfway. Have children place a few seeds in the cup and place a little more soil on top of the seeds. Let them water the seeds (provide only as much water as you would like them to pour, as they will pour it all). Pop the rest of the popcorn to have as a snack.

GOAL
Children will learn about natural cycles and processes. They will gain an increased understanding of food science.
Seed to Root

**MATERIALS**  
Green bean seeds  
Paper towels  
Quart size Ziploc bags  
Water

**ACTIVITY**  
Read or tell the story of *Jack and the Bean Stalk*. Let children pick three seeds from a bowl. Have them place the seeds in a Ziploc bag. Wet a paper towel and have the children place the paper towel in the bag on top of the seeds. Write the children’s names on the bag with a permanent marker and leave the bags in a window. The children can watch the seeds sprout, grow roots, and turn into green bean plants (this takes about a week). Record changes each day.

**GOAL**  
Children will learn to make observations and gain an understanding of cycles and processes related to food. They will express wonder and curiosity about the natural world.
**Shoe Planters**

**MATERIALS**
- Old shoes (have each child bring in an old worn-out shoe from home)
- Potting soil
- Herb or flower seeds
- Water

**ACTIVITY**
Have each child bring in an old shoe of any size from home. Allow the children to use cups to fill the shoes with soil. When the shoes are ¾ filled, put in a handful of herb or flower seeds. Cover the seeds with a little soil and add water. Plant a shoe garden around the playground or in the classroom and watch the plants grow.

**GOAL**
Children will learn about natural cycles and processes.
Worm Farm

MATERIALS  
Clear plastic or glass jar  
Soil  
Dirt and leaves  
Organic matter such as fruit peels, coffee grounds, or vegetable scraps  
Water  
Worms

ACTIVITY  
Put soil and leaves in to the jar until it is half full. Water the mixture lightly to keep it moist. Dig for worms and put the worms in the jar. Store worm farm in a shady cool place and watch the worms, feed them organic matter and they will multiply. Worms are good for the soil and valued by gardeners because they help mix air into the soil and provide food for plants.

GOAL  
Children will construct meaning from their experiences as they interact with worms and develop a deeper understanding of the world around them. They will gain an understanding of the worms’ role in decomposition of organic matter.
Math Activities

Math for early learners is the discovery of patterns, symmetry, shape, quantity and object attributes. Children manipulate concrete objects to test patterns and make sense of abstract ideas. Recognizing patterns is essential for the development of early algebraic thinking. Shape recognition introduces children to early geometry. Children can repeat patterns with variations in size, shape, and color. Children use objects as models to form quantitative relationships and to sort, categorize, measure and sequence. Object arrangement provides opportunities for children to construct and understand mathematical concepts. Math activities extend children’s learning and create opportunities for problem solving and developing processes that lead to logical thinking. When children are given the opportunity to explore these activities, they will develop the ability to organize information and use it in more complex ways.

Compost Bin Sorting Game

**MATERIALS**

- Bucket
- Orange construction paper worms (rubber fishing worms also work well)
- Green construction paper leaves
- Red construction paper tomatoes
- Yellow construction paper banana peels
- Black construction paper spiders
- Brown ripped paper to be dirt
  (insect and food shapes can be laminated for durability)

**ACTIVITY**

Place the compost bin with organic matter and insects on the math table. Fill it with pretend dirt, worms, leaves, tomatoes, banana peels and spiders. Let children sort and count the organic matter in the compost bin. Have them group alike objects into piles. Talk about worms and insects and discuss their important job of breaking down soil and kitchen scraps.

**GOAL**

Children will learn math concepts as they sort and count. They will gain an awareness of the cycles and processes related to decomposition.
Food Equality

**MATERIALS**
Fruits, vegetables and various play food from your classroom’s “house” area
Baskets

**ACTIVITY**
This is a small group activity to offer during free-play time. Put a specific number of foods into a basket. Give children an empty basket and have them put the same number and kinds of foods into their basket. Children will have to count and sort according to food attributes in order to get it correct.

**GOAL**
Children will learn to identify equality and quantity as they sort, count and match objects. They will gain an understanding of early math concepts.

Food Pyramid Game

**MATERIALS**
Poster board
Markers
Pictures of vegetables, fruits, dairy, meat/beans, oils, junk food (use seed catalogs and cooking magazines)
Construction paper
Glue stick

**ACTIVITY**
Draw a food pyramid onto the poster board (see illustration). Separate the pyramid into six food groups. Label the food groups grain, vegetables, dairy, meat/beans, oils and junk food. Find pictures of foods from the various groups and glue them onto different shapes made from colored construction paper. Trace the shapes onto the food pyramid so that children can match the foods to the recommended amounts of servings for their age. Trace shapes to match the number of foods per recommended serving listed below.
• **Grain** – Glue 3-4 pictures of grains onto brown paper ovals

• **Vegetables**- Glue 5 pictures of vegetables onto green paper squares

• **Fruits**- Glue 5 pictures of fruits onto red paper triangles

• **Dairy**- Glue pictures of 1 cup milk, 1 cheese slice and yogurt onto yellow paper rectangles

• **Oils**- Glue pictures of 2 oils (salad dressing and oil) onto blue paper diamonds

• **Junk Food**- Glue picture of one cake or piece of pie onto a red paper heart

Children can count as they match the foods and shapes to the correct number of shapes on the food pyramid.

**VARIATION** Add pictures of children with diverse abilities and ethnic backgrounds exercising to the poster board on the outside of the pyramid. This will help children connect the idea that nutritious foods and physical activity promote good health.

**GOAL** Children will gain an understanding of dietary guidelines reflected in the food pyramid and learn to make healthy food choices. They will construct an awareness of math concepts as they work with shape identification and counting.

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**Pizza Puzzles**

**MATERIALS** Cardboard circles (cut from old boxes, or purchase pre-cut pizza or cake circles from a restaurant supply)

Glue

Paintbrushes

Pepperoni circle

Construction paper mushrooms

Construction paper green peppers
**ACTIVITY**  Use a marker to divide each cardboard circle into six slices. Outline pepperoni, mushroom, and pepper shapes onto the pizza slices. Use different amounts of toppings on each slice. Use marker colors that correspond to the topping colors. Paint a layer of glue on the pizza circles and let dry overnight until it has a hard clear sheen. Cut the pizza slices apart when the glue dries and let children play with pizzas. Have toppings separated into bowls. They can count and sort to put toppings on pizzas.

**GOAL**  Children learn math concepts as they count, sort and recognize shapes. They will gain problem solving skills as they put together the pizza puzzles.

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**Seed Sorting**

**MATERIALS**  Sensory table of plastic tubs
Small cups or measuring cups
Spoons
Bowls
Seeds from a variety of beans (lima, pinto, black, kidney, navy)

**ACTIVITY**  Put a variety of bean seeds into a sensory table or tub. Provide tools so that children can collect, sort and count the seeds.

**GOAL**  Children will gain an understanding of math concepts as they classify, sort and count the seeds.
Seed to Fruit Sequencing

MATERIALS  Sequence cards with a picture of:
• A seed
• A sprouting seed
• A plant
• Plant with flower
• Plant with fruit

ACTIVITY  Find pictures of a plant from seed to fruit in a book or draw them on squares of construction paper. Laminate the cards. Let children sort them according to their correct sequence. Ask children questions to help them remember the proper order.

GOAL  Children will learn sequencing and understand the growth cycle of plants.

Sorting Fruits and Vegetables

Assortment of vegetables
Assortment of fruits
Assortment of grains
Baskets
Pretend money
Money boxes
Aprons
Scale
Measuring tapes or rulers

Set up a farmers’ market in the dramatic play area of the classroom. Use foods from the kitchen area or make them out of felt. Put the vegetables in baskets labeled with the correct type and quantity. Let children sort, measure, weigh and sell the fruits and vegetables.
Children will gain an increased understanding of measurement concepts and numbers. Children will increase their ability to sustain interactions with others and play cooperatively.

**Fruit & Vegetable Shape Patterns**

**MATERIALS**
- Multiple pictures of fruits: apple, banana and cherry
- Multiple pictures of vegetables: tomato, pepper and bean
- Construction paper strips
- Markers

**ACTIVITY**
Draw various sequences of fruits and vegetables onto rectangular construction paper strips. Provide pictures of the same fruits and vegetables on small laminated cards. Let children practice repeating the patterns. Make many cards with a variety of patterns. (i.e. banana, banana, apple, cherry… or tomato, pepper, bean…). Children can set up their fruit and vegetable cards to repeat the patterns.

**GOAL**
Children will develop an awareness of early algebraic concepts and develop problem solving skills.
Art Projects

Art experiences provide children with opportunities to extend their learning as they interact with a range of materials. Children examine line, texture, color, shape and space to communicate their understanding of the world. Children use art to acquire new perspectives, ask questions and explore emotions. A variety of art media can create opportunities for sensory exploration. Art projects should be open-ended and child directed so that children can deepen their thinking and connect ideas on a level that is developmentally appropriate.

Caterpillar

**MATERIALS**
- Cardboard egg cartons
- Paint
- Paint brushes
- Pipe cleaners

**ACTIVITY**
Insects are attracted to gardens. Set out cut up egg cartons and paint. Let children paint their own caterpillars. Let children draw faces on their caterpillars and attach pipe cleaners when the paint dries.

**GOAL**
Children will explore and become comfortable with a variety of art media.
Clay Pots

MATERIALS  Self-hardening clay
            Water
            Paint and brushes (optional)

ACTIVITY  Give each child a lump of clay, and roll
           the clay on the table to form a snake
           shape. Take the end of the snake and
           begin to coil it around until the desired
           shape and size is achieved. Mix a little clay with water to make a “slip” that
           can be applied to the pot to smooth any cracks.

To make pinch pots: Give each child a lump of clay. Have children stick
their thumbs in the middle and pinch the edges working their way
around the clay in a circular motion until the pot is formed. They can use
tools or objects to make lines and textures on the outside of the pot.
Apply a slip of water and clay to smooth out the rough edges. Let the
pots dry, and paint if desired.

GOAL  Children will develop a growing comfort with using their senses and
       increase fine motor control.

Flower Pot Painting

MATERIALS  Small clay flowerpots
            Brushes
            Tempera paint of assorted colors

ACTIVITY  Pass out flowerpots to the children. Provide an
           assortment of paint colors for children to choose
           from. Let them decorate their pots and plant
           seeds in them when dry.

GOAL  Children will gain experience using a variety of
       media and have the opportunity to express themselves.
Garden Collages

MATERIALS  Glue
Construction paper
Markers or crayons
Magazine photos of a variety of fruits and vegetables (seed catalogs are great for this)

ACTIVITY  Spread a large assortment of food photographs on the table. Give children construction paper and glue. Let them build their own gardens.

GOAL  Children will learn about a variety of healthy foods that grow in the ground. They will develop fine motor skills and have an increased understanding of the cycles and processes related to food production.

Gourd Art

MATERIALS  Gourds
Paint
Paint brushes

ACTIVITY  Let children know that gourds are fruits that come from seeds. They also contain seeds inside them. Gourds are fun to decorate. Give each child a small gourd or pumpkin. Provide children with a variety of paint colors and let children decorate their gourds for display.

GOAL  Children will become comfortable working with a variety of art media and have the opportunity to creatively express themselves.
Vegetable Labels

**MATERIALS**  
Seed envelopes or vegetable pictures of many varieties  
Tongue Depressors

**ACTIVITY**  
Paper  
Markers  
Tape  
Glue

Give children tongue depressors, paper, markers, tape and vegetable photos or seed envelopes. Let them make plant markers for pots and gardens. They can create their own markers or tape seed envelops onto tongue depressors to create labels. Glue a few seeds onto the tongue depressors so that children can match the seeds to their marker. Label the sticks with vegetable names.

**GOAL**  
Children will develop fine motor control and learn about plants and seeds. Children will be exposed to literacy materials and learn letter identification.

Potato Prints

**MATERIALS**  
Potatoes  
Washable tempera paint  
Construction paper

**ACTIVITY**  
Cut potatoes in half. The teacher can carve designs into the middle of the potatoes or leave them in their original shapes. Have children stick the potatoes in tempera paint and place them on their paper. Any vegetable can be cut and used to create a print.

**GOAL**  
Children will develop increased comfort with sensory experiences and develop hand-eye coordination.
Scarecrow

**MATERIALS**
- Shirt
- Pants
- Old pillow case
- Long Stick
- Hay, leaves or stuffing
- Yarn

**ACTIVITY**
Bring in some old clothes or have children bring in their old clothes. Tie the pant cuffs, shirt sleeves, and shirt bottom closed with yarn. Have children work together to stuff the shirt and pants with hay or other stuffing material. Draw a face on the pillow case with permanent marker. Let children stuff the pillow case and tie the end shut with a piece of yarn. (You can have three smaller groups work together. One group can stuff the pants, one group can stuff the shirt and the last group can stuff the pillow case). When all of the parts are stuffed, connect the body parts and attach the scarecrow to the stick. Use the scarecrow to adorn the playground or garden.

**GOAL**
Children will work cooperatively, enhance communication skills through peer interactions and develop social-emotional skills.

Seed Collage

**MATERIALS**
- All kinds of seeds. Beans work well: lentil, navy bean, kidney bean, black bean, etc.
- Glue
- Paper or cardboard

**ACTIVITY**
Place a variety of seeds in bowls on the table. Let children use glue and seeds to make a seed collage.

**GOAL**
Children will show an appreciation for creative works and develop a growing comfort with sensory experiences.
Music Activities

Music has a powerful influence on early learners. Music activities improve children’s memory, stimulate creativity and enhance social enjoyment. Music trains the brain for higher levels of thinking. Rhythm and pattern repetition promote math concepts. Lyrics and rhyme provide opportunities for language development and early literacy. The songs in this guide reinforce concepts related to food, nutrition, and gardening while providing children with an outlet for self-expression and gross motor development.

Apples and Bananas

I like to eat, eat, eat, apples and bananas
I like to eat, eat, eat, apples and bananas

I like to ate, ate, ate ay-pples and banay-nas
I like to ate, ate, ate ay-pples and banay-nas

I like to eat, eat, eat, ee-pples and bane-nees
I like to eat, eat, ee-pples and bane-nees

I like to ite, ite, ite, i-pples and bani-inis
I like to ite, ite, ite, i-pples and bani-inis

I like to oat, oat, oat o-pples and bano-nos
I like to oat, oat, oat o-pples and bano-nos

I like to oot, oot, oot oo-pples and banoo-noos
I like to oot, oot, oot oo-pples and banoo-noos

I like to eat, eat, eat, apples and bananas
I like to eat, eat, eat, apples and bananas
Garden Song

Inch by inch, row by row
Gonna make this garden grow
All you need is a rake and a hoe
And a piece of fertile ground
Inch by inch, row by row
Someone bless these seeds I sow
Someone warm them from below
Til’ the rain comes tumbling down.

Pulling weeds, picking stones
We are made of dreams and bones
Need a place to call my own, for the time is near at hand
Grain for grain, sun and rain
Find my way thru nature’s chain
Tune my body and my brain to the music of the land

Plant your rows
Straight and long
Temper them with music and song
Mother earth will make you strong if you give her love and care
An old crow watching hungrily
From his perch in yonder tree
In my garden I’m as free as that feathered thief up there.

(Copyright 1975 and 1978 Cherry Lane Music Company)

I’m a Little Black Seed
(To I’m a Little Teapot)

I’m a little black seed, plant me in a row
Water me and weed me, watch me up and grow
From little seed to seedling, flower to fruit
I’m a happy little plant from tip to root

MOVEMENT ACTIVITY: Ask children to crouch on the ground like a seed. As you sing the song, have children grow until they are tall and their arms are stretched wide.
Mixing Pancakes

Mixing pancakes
Stirring pancakes
Pop them in the pan
Frying pancakes
Flipping pancakes
Catch them if you can

MOVEMENT ACTIVITY: Model mixing, stirring, frying, flipping and catching as you sing the verses to this song.

Oats, Peas, Beans and Barley

Oats, peas beans and barley grow
Oats peas beans and barley grow
Did you or I or anyone know
How oats peas beans and barley grow?
First the farmer sows the seed
Then he stands and takes his ease
He stamps his foot and claps his hands
And turns around to view the land

MOVEMENT ACTIVITY: Ask children to plant the seed, stand, stamp their feet, clap their hands and turn around to view the land. The teacher can model appropriate movements as she sings the song.

(Copyright 1976, Belwin Mills Publishing Corp.)
Peanut Butter and Jelly

First you take the peanuts
And you crunch them, crunch them
First you take the peanuts
And you crunch them, crunch them

Peanut, peanut butter and Jelly
Peanut, peanut butter and jelly

Then you take the berries
And you squish them, squish them
Then you take the berries
And you squish them, squish them

Peanut, peanut butter and jelly
Peanut, peanut butter and jelly

Then you take the bread
And you spread it, spread it
Then you take the bread
And you spread it, spread it

Peanut, peanut butter and jelly
Peanut, peanut butter and jelly

Then you take the sandwich
And you eat it, eat it
Then you take the sandwich
And you eat it, eat it

Peanut, peanut butter and jelly
Peanut, peanut butter and jelly

**MOVEMENT ACTIVITY:** Children should follow the teachers’ directions and pretend to crunch peanuts, squish jelly, spread ingredients onto bread and eat the sandwich to correspond their movements to the appropriate verses.
Healthy Snacks

Young children learn by doing. When children are involved with cooking and preparing foods, they are more likely to try new foods. Rich sensory experiences help them construct understanding and meaning from their explorations. As they mix, grind and chop, children develop fine motor skills. Measuring quantities allows them to develop a growing awareness of math concepts. Working with a variety of foods advances their awareness of food science and helps them learn to make food choices that can lead to a lifetime of healthy eating. These snacks introduce children to wholesome, nutritious foods and offer children opportunities to participate in food preparation.

Ants on a Log

**INGREDIENTS:** Celery
Peanut butter or cream cheese
Raisins

**SNACK:** Spread cream cheese or peanut butter on celery. Give children raisins to sprinkle on the celery.

Banana Fruit Smoothie

**INGREDIENTS:** Frozen bananas
Milk
Yogurt
Granola (optional)
Honey (optional)

**SNACK:** When bananas begin to brown, take the bananas out of their peels and put them in Ziploc bags in the freezer. Once the bananas are frozen, blend them in a blender with some yogurt and milk. Children can help put the ingredients into the blender. This snack can be served with granola and honey or plain.
**Bread**

**INGREDIENTS:**
3 cups warm water
2 tablespoons yeast
3 teaspoons sugar or honey
1 1/2 teaspoon salt
7-9 cups flour
Parchment paper

**SNACK:** Gather ingredients. Put a large bowl in the center of the table. Have measuring cups and measuring spoons nearby. Let each child have a turn to stir in an ingredient and pass the bowl around the table. Add water first, then yeast, sugar/honey, salt and lastly flour. Add flour until the dough is hard to mix and not very sticky. Give each child a piece of parchment paper, sprinkle it with flour, and pass out a small piece of dough to each child. Let them knead the dough. They may eat some. When they are finished, mark parchment paper with their names, place on cookie sheets and let them rise for about 1 hour. Bake small loaves at 400 degrees for 30 minutes or until brown. Serve for snack with butter or cheese.

**Cheese Wafer Shapes**

**INGREDIENTS:**
1/2 cup butter
1 1/2 cups flour
1/2 lb. grated cheddar cheese
1/4 teaspoon salt
1 teaspoon Worcestershire sauce
1/2 teaspoon yellow mustard

**SNACK:** Mix together all of the ingredients to form dough. Roll out into a lightly floured board or piece of parchment paper. Cut the dough into shapes with cookie cutters. Bake in oven at 475 degrees for about 10 minutes. Children will learn shape recognition while eating this fun snack.
Edible Containers

**INGREDIENTS:**  
Small hard rolls  
Spinach dip or thick soup

**SNACK:**  
Give children a hard roll and have them tear out the bread in the middle. Put dip or soup into the center and let children eat.

Frozen Yogurt Crackers

**INGREDIENTS:**  
Yogurt  
Graham Crackers  
Fruit

**SNACK:**  
Place a tablespoon of yogurt on a graham cracker. Place a berry or banana slice in the center of the cracker. Put the yogurt crackers in the freezer for at least two hours. Serve frozen yogurt crackers for snack.

Food Tasting

**MATERIALS:**  
Apples  
Cheese  
Lemons  
Pretzels  
Fruit snacks  
Pickles  
Egg Carton or paper cups  
Clipboard with pictures of foods and a happy or sad face.

**ACTIVITY:**  
Cut up foods with different tastes (sweet, salty, sour, bitter etc...). Cut egg cartons in half. Put individual servings of the foods in each hole of the egg carton or in paper cups. Call the children together for group time. Read a book about food from the bibliography. Let the children taste the various foods. Label and document the foods based on the children’s likes and dislikes by making marks by the happy face or sad face depending on the children’s votes. Post the happy/sad picture in the classroom.
**GOAL:** Children will increase their comfort with sensory experiences while being introduced to a wide range of food and flavors.

### Fruit Kabobs

**INGREDIENTS:**
- Grapes
- Apples
- Melon
- Strawberries
- Bananas
- Yogurt
- Tooth picks or bamboo skewers

**SNACK:** Cut and set out an assortment of fruit. Offer napkins and tooth picks to children. Let them make fruit kabobs by skewering a variety of fruits. Let children dip their kabobs in yogurt for added protein and flavor.

### Individual Pizzas

**INGREDIENTS:**
- Pita bread or English muffins
- Spaghetti sauce
- Cheese
- Pepperoni (optional)
- Olives (optional)
- Mushrooms (optional)

**SNACK:** Give each child a piece of pita bread or English muffin. Have pizza ingredients set up along the table. Invite each child to walk through the assembly line to spread sauce on the bread, add toppings, and sprinkle cheese. Bake in the oven at 400 degrees for ten minutes. Eat for snack or lunch.
Peanut butter and Jelly

**INGREDIENTS:** Bread  
Peanut butter  
Jelly  
Tongue depressors or Popsicle sticks

**SNACK:** Sing the Peanut Butter and Jelly song. Pass out bread, sticks and small cups filled with peanut butter and jelly. Let children spread their own peanut butter and jelly on their sandwiches. Eat!

Peanut Butter Roll-ups

**INGREDIENTS:** Flour tortilla  
Peanut butter  
Shredded carrots or sliced bananas

**SNACK:** Provide children with tortillas, peanut butter and shredded carrots. Let them use a tongue depressor to spread the peanut butter on the tortilla. Add the carrots or banana slices and roll it up. They can eat this for snack.

Potato Boats

**INGREDIENTS:** Baked potatoes  
Cheese  
Sour cream  
Bacon bits  
Butter  
Broccoli

**SNACK:** Bake potatoes in the oven for 1 hour or in the microwave for 10 minutes. Cut the potatoes in half and give each child a half. Pretend like the potatoes are boats. Let children use a fork to mash the middle and allow them to add toppings. They can pretend they are loading up supplies onto the boat.
Shape Snack

**INGREDIENTS:** Cheese cut into different shapes
Crackers of assorted shapes
Fruit

**SNACK:** Offer children snack with cheese and crackers cut into assorted shapes. They will learn simple math concepts as they identify and sort the shapes they eat.

Shovels

**INGREDIENTS:** Celery sticks
Paper cups with dip

**SNACK:** Let children pretend that their celery sticks are shovels. They can lift the dip out of the cups with celery and eat it.

Trail Mix

**INGREDIENTS:** Pretzel sticks
Cheerios
Goldfish
Raisins
Dried cranberries
Nuts (optional depending on allergies)

**SNACK:** Set out all the ingredients. Let each child dump a cup or two of the ingredients into a large bowl. Stir. Eat. Children will have fun sorting the ingredients as they eat this healthy snack.
Vegetables and Dip

INGREDIENTS: Carrots
Snap peas
Celery
Tomatoes
Cauliflower
Broccoli
Ranch dressing or vegetable dip

SNACK: Place an assortment of vegetables on the table. Let children choose vegetables and offer them dip.

Vegetable Soup

INGREDIENTS: Carrots
Celery
Beans
Corn
Onion
Tomato sauce
Noodles
1 Tablespoon salt
1 Teaspoon pepper
1 Tablespoon oregano
Water

SNACK: Chop vegetables ahead of time. Read the book Stone Soup. Grab a large pan and let each child have a turn putting ingredients into the pan. When finished, put the pan on the stove and cook at low heat for 1 hour. Eat. The teacher may also clean a large stone and add that to the soup to enhance the story and activity.
Terms and Phrases
(English/Spanish)

English and Spanish translations augment classroom curricula and help children learn to use an increasingly complex assortment of vocabulary words. Teachers can use this guide to support children that speak English as a second language. Children that primarily speak English can gain opportunities to learn words in Spanish. By being exposed to different languages, the communication gap between English and non-English speakers in the classroom will diminish and children will gain opportunities for social interactions. This stimulates social-emotional development and helps children develop an awareness of the larger world as they gain respect for similarities and differences among people.

<table>
<thead>
<tr>
<th><strong>Vegetables</strong></th>
<th><strong>Las Verduras</strong></th>
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</thead>
<tbody>
<tr>
<td>Avocado</td>
<td>El aguacate, la palta</td>
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<tr>
<td>Beans</td>
<td>Los frijoles</td>
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<td>Beets</td>
<td>Las betarragas, la remolacha</td>
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<td>Broccoli</td>
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<td>Cabbage</td>
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<td>Carrot</td>
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<td>Cauliflower</td>
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<td>Celery</td>
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<td>Corn</td>
<td>El maíz</td>
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<td>Cucumber</td>
<td>El pepino</td>
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<td>La berenjena</td>
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<td>Lettuce</td>
<td>La lechuga</td>
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<td>Mushrooms</td>
<td>Los champiñones</td>
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<tr>
<td>Onion</td>
<td>La cebolla</td>
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<tr>
<td>Pea</td>
<td>El guisante, la arveja</td>
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<td>Pepper</td>
<td>El pimiento</td>
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<td>Potatoes</td>
<td>Las papas</td>
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<td>La calabaza</td>
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<td>El rábano</td>
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<td>Spinach</td>
<td>La espinaca</td>
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<tr>
<td>Squash/pumpkin</td>
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<td>Tomatoes</td>
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<td>Turnip</td>
<td>El nabo</td>
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<td>Zucchini</td>
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<thead>
<tr>
<th><strong>Fruit</strong></th>
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<tbody>
<tr>
<td>Apple</td>
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<td>El arándano</td>
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<td>Cherry</td>
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<td>Grapes</td>
<td>Las uvas</td>
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<td>Lemon</td>
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<td>Orange</td>
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<td>Plum</td>
<td>La ciruela</td>
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<td>Strawberry</td>
<td>La fresa</td>
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<td>Watermelon</td>
<td>La sandía</td>
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<table>
<thead>
<tr>
<th><strong>Garden Tools</strong></th>
<th><strong>La Herramienta de Jardín</strong></th>
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<tbody>
<tr>
<td>Basket</td>
<td>La cesta</td>
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<td>Hay Bale</td>
<td>El fardo de paja</td>
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<td>Hoe</td>
<td>El azadón</td>
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<td>Hose</td>
<td>La manguera</td>
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<td>Rake</td>
<td>El rastrillo</td>
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<td>Shovel</td>
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<td>Trowel</td>
<td>El desplantador</td>
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<td>Watering can</td>
<td>La regadera</td>
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<td>Wheel barrow</td>
<td>La carretilla</td>
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</tbody>
</table>
Other relevant words

Children's garden  El huerto para niños
Compost  La materia orgánica
Community gardens  Huertos comunitarios
Cooking  Cocinando
Food  La comida
Garden  El jardín, huerto
Grow  Cultivar, crecer
Insect  El insecto
Market  El mercado
Plant  La planta
Seed  La semilla
Water  El agua
Worm  El gusano

Food and Garden phrases

I water my garden.
Riego mi huerto

I weed my garden.
Deshierbo mi huerto.

What do you like to eat?
¿Qué te gusta comer?

I like to eat ___, ___, and ___.
Me gusta comer ___, ___, y ___.

What do you like to cook?
¿Qué te gusta cocinar?

I like to cook ___, ___, and ___.
Me gusta cocinar ___, ___, y ___.

Do you have insects that eat your plants?
¿Tienes insectos que comen tus plantas?
Can you show me your plot?
¿Puedes mostrarme tu lote?

What is your favorite crop to grow?
¿Qué es tu cosecha favorita para sembrar?

My favorite crop is ____.
Mi cosecha favorita es ____.

It is healthy.
Es saludable.

It is not healthy.
No es muy saludable.

I like to have fresh and healthy food.
Me gusta tener alimentos frescos y saludables.

It is delicious.
Es delicioso/a.

It tastes bad.
Es malo/a.
Books affirm curricula concepts while engaging children in opportunities to participate in early literacy experiences. Children develop listening skills, increase their vocabulary, acquire comprehension skills and learn to differentiate between letters when they are exposed to literacy materials. This literature will increase children's understanding of processes related to food, nutrition and gardening.

Children’s Books

ISBN 0-7636-2301-6

ISBN 0-06-023350-8

ISBN 0-14-056409-8


ISBN 0-613-23639-4

ISBN 978-083359322-1
ISBN 1-905236-47-6


**I Eat Fruit**, by Hannah Tofts, published by Zero to Ten (copyright 1998).
ISBN 1-84089-027-4

ISBN 0-06-024304

ISBN 0-613-53833-1

ISBN 1-58270-109-1


**Bilingual and Spanish Books**

ISBN 0-613-31520-2
ISBN 9781841488943

ISBN1-884834-61-2

ISBN 978-083359322-1

Teacher Reference Books

ISBN 1-56308-346-9

ISBN 0-87659-264-7


ISBN 0-8120-1317-4

ISBN 1-929610-20-3
# Data Collection Sheet

Materials used in experiment:

<table>
<thead>
<tr>
<th>Name:</th>
<th>Hypothesis/Prediction:</th>
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Observation or measurement of change:
(Circle day or hour)

Day/hour 1_______________________________________
Day/hour 2_______________________________________
Day/Hour 3______________________________________
Day/Hour 4______________________________________
Day/Hour 5______________________________________
Day/Hour 6______________________________________
Day/Hour 7______________________________________
Day/Hour 8______________________________________
Day/Hour 9______________________________________
Day/Hour 10____________________________________
Day/Hour 11____________________________________
Day/Hour 12____________________________________

Conclusion/Outcome:
# Experiment Observation and Assessment Sheet

**Objects or Materials for Experiment:**

<table>
<thead>
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<th>Name</th>
<th>Prediction</th>
<th>Observation</th>
<th>Outcome</th>
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</table>
Name:

**Individual Experiment Observation Sheet**

Draw a picture of objects and materials used in the experiment

Hypothesis (predict changes): 

Observation(record any changes): 

Draw picture of changes in objects or materials: 

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