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SESSION 1

Topic: Where Does My Food Come From?

Objective: Children will be able to demonstrate the life cycle of a plant, detailing the planting, feeding, watering, growing, and harvesting process.

Key Concepts: Fruit and vegetables start as seeds that are planted in fertile soil and fed with plenty of water and sunshine in order to grow healthy and strong. Healthy plants bear fruit that is ready to be harvested and enjoyed when it is ready and ripe. Just like the plants, children go through a growth cycle where they develop new skills as they grow physically, emotionally, and mentally.

Materials Needed

- “Bunny Hop” game instructions
- Pictures of fruits and vegetables
- “Oh, Do You Eat Your Vegetables” song lyrics
- Session 1 discussion card
- “Seedling Song” lyrics
- Tummy Mindfulness and Experiential Eating protocol
- Fruit, vegetables, and napkins for tasting
- Tummy dolls
- Watering cans
- “Red apple, green apple” game instructions
- Pictures of yellow, green, and red apples
- Lima bean experiment card
- Supplies for planting lima bean (seed, moist paper towel, clear plastic bag, heavy tape)

NAEYC Recommendations Satisfied

Curriculum 2.A.03, Curriculum 2.A.08, Curriculum 2.A.10, Curriculum 2.A.11, Curriculum 2.A.12, Curriculum 2.C.03, Curriculum 2.C.04, Curriculum 2.D.02, Curriculum 2.D.03, Curriculum 2.D.07, Curriculum 2.G.02, Curriculum 2.G.06, Curriculum 2.G.08, Curriculum 2.K.01, Curriculum 5.A.06

Introduction [10 minutes—game]

- **Game:** To start this session, we are going to play a game to get warmed up called “Bunny Hop.”
 - Large pictures of fruits and vegetables are spread out around the playground.
 - The teacher tells the children to hop like a bunny to the fruit or vegetable that they like to eat the most.
 - The teacher calls on a few children and ask them “What is your name?” and “Why do you like to eat the fruit or vegetable that you are standing next to?”
 - The teacher then yells “Switch!” and the children are instructed to hop to another fruit or vegetable that they like to eat and stand next to that picture.

- Each round the teacher says something different. For example, on the next round the teacher tells the children to hop to a fruit or vegetable that they have never tried, one that grows on a tree, one that grows in the ground, or one that's green.
- The teacher plays the game until every child has been called upon.

Classroom Activities [20 minutes—song, discussion, song]

- **Song:** The children are invited to stand in a circle as they are taught the “Oh, Do You Eat Your Vegetables” song (Sung to “Have You Seen the Muffin Man”).

Lyrics:

Oh, do you eat your vegetables, vegetables, vegetables?
Oh, do you eat your vegetables-each and every day?

Oh, yes we eat our vegetables, vegetables, vegetables:
Oh, yes we eat our vegetables-each and every day!

Oh, [*Maria*] eats green beans, green beans, green beans,
Oh, [*Maria*] eats green beans-each and every day!

- While singing, the children hold hands and skip around in a circle. Starting with the teacher, she/he goes into the center of the circle while saying her favorite vegetable or fruit and does a little dance while the children circle around her. The class skips around her singing the song and adding the teacher’s name to the brackets. Next, the teacher chooses a student to go to the center by asking, “[*Maria*], what fruits or vegetables do *you* eat?” That student goes to the center while telling one of his/her favorite fruits or vegetables and this is repeated numerous times. (This can happen inside or outside as long as there is adequate room.)
- **Discussion 1a:** The teacher leads the children in an interactive discussion on how fruits and vegetables grow and teach the children about the plant life cycle:
 - All fruit and vegetables start as a seed: “Everyone crouch down low into a little ball”
 - Then they turn into sprouts: “Everyone stand up just a little bit” (Squatting position)
 - Then they become seedlings: “Stand up just a little bit more and raise your arms half way”
 - Then they become plants: “Stand up all the way with your arms raised”
 - Water and sunshine helps them grow: “Stand up on your tippy toes with your arms stretching to the sky”
 - And then they bear fruit: “Ball up your fists to represent the fruit”
- **Song:** In order to review this concept, the teacher leads the children in the “Seedling Song” in order to further their understanding of the life cycle of a seed. Sing the chorus after getting the children in position for each stage of the life cycle of a seed, including seed, sprout, seedling, plant, and full-grown plant bearing fruit. The song is repeated several times to get the children moving! Teacher/s should join as well!

Chorus:

Water and sunshine every day, every day, every day
Water and sunshine every day and you grow, grow, grow

- Start as a seed (everyone crouch down low into a little ball on the ground)
- After getting water and sunlight, you start to grow into a sprout (everyone stand up just a little bit in a squatting position)
- After more watering and sunlight, you become a seedling (stand up just a little bit more and raise your arms half way)
- After even more watering and sunlight, you grow even taller into a plant (Stand up all the way with your arms raised)
- After a few months, you're a fully grown plant with fruit that is ready to be harvested (ball up your hands into fists and reach out or up, representing flowers and/or fruit/vegetables)

Mindful Eating [15 minutes—tummy mindfulness, experiential eating]

- **Tummy Mindfulness and Experiential Eating Protocol:**

- Direct children to wash their hands before their taste testing.
- Food should be served to the children with gloved hands.
- After washing their hands, the children are presented with fruits and vegetables from the garden (or grocery store if needed) to sample. Images of a body with an empty belly, full belly, and half full belly are available for the children to compare. The teacher describes the feelings of hunger and fullness to the children to increase their understanding of these concepts.
 - Before sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry by asking them to point to the appropriate images.
 - The teacher then calls on a few children and asks them to describe what hunger or fullness feels like. The teacher tells the children that if they are not hungry then they should only take a small taste and a bigger taste if they are hungry.
 - After sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry (point to the images).

***While the children are tasting, encourage positive conversation by making statements and asking questions that prompt the children to identify the color, smell, taste, and texture of the fruit or vegetable they are tasting, the sounds they make when they bite and chew, and what do they feel happening inside their mouths while they are chewing. Avoid statements that are coercive, like “just take a polite taste,” or “everyone has to try it.”**

For example:

“What **sound** was made when you chewed the celery? What do you feel happening inside your mouth while you chew? [*That celery was really crunchy and juicy.*]”

“How does the tomato **taste**?”

“What does the bell pepper **smell** like?”

“What does the cucumber feel like in your **hand**? [*It’s nice and cool.*]”

“What **color** are the strawberries that we are tasting?”

Garden Activity [20 minutes—discussion, garden maintenance, song, garden exploration, game]

- **Discussion 1b, Garden Maintenance, and Song:** The teacher reminds the children that just as we sang, the garden needs water and sunshine to grow. Each student receives a watering can and is led outside to water the garden. Encourage students to sing the chorus to the “Seedling Song” while they water.

Chorus:

Water and sunshine every day, every day, every day

Water and sunshine every day and you grow, grow, grow

- **Garden Exploration:** Using real fruits and vegetables, the teacher brings the children around the garden and shows the children the fruits and vegetables that are growing in the garden. Children are encouraged to identify the fruit or vegetable, its color, its shape, how it feels (i.e. smooth, fuzzy, etc.), what stage of the life cycle, what it needs to grow, and whether it is ready for harvesting.
- **Game:** In order to emphasize the importance of eating fruit and vegetables to have energy for physical activity, the teacher leads the children in a game of “Red Apple, Green Apple.”
 - The children line up opposite of the teacher.
 - When the teacher holds up the green apple, the children begin performing an activity as they make their way toward the teacher. For example, the teacher may tell the children to hop like a grasshopper. When the green apple is showing then the children will hop like a grasshopper toward the teacher.
 - When the teacher holds up the red apple, the children stop doing the activity.
 - When the teacher holds up the yellow apple, then the children perform the activity very slowly.
 - Once the children reach the teacher on the opposite side of the room, then the children start over with a new activity.

Wrap Up/Review [5 minutes—discussion, science experiment]

- **Discussion 1c:** The teacher emphasizes the importance of eating fruits and vegetables in order to grow strong and healthy, and ends the conversation by asking the children, “Where do fruits and vegetables come from?” The teacher leads the children to answer that fruits and vegetables come from seeds.
- **Science Experiment:** In order to further emphasize this concept, the teacher leads the children in planting a lima bean seed in front of the class. The lima bean seed is planted in a clear plastic bag

with a very moist paper towel and taped to a window that gets sun. This allows the class to observe what happens to the seed and seedling over time, modeling the processes that are occurring outside in the garden.

- Over the next 12 sessions, the teacher measures and charts the lima bean's growth using a ruler (taking the measurements might be too complicated for the children so they can watch the teacher measure the plant).

SESSION 2

Topic: Nutrients for Growth

Objective: Children will understand the relationship of physical activity and eating fruits and vegetables to their growth and development.

Key Concepts: Just as plants need water and sunshine to grow healthfully (big, strong and capable of producing vegetables or fruits), children need to do physical activity and eat fruits and vegetables in order to grow big, healthy and strong. Physical activity and eating fruits and vegetables are essential to human growth and development.

Materials Needed

- “Seedling Song” lyrics
- Session 2 discussion card
- “Plant Race” game instructions
- Tummy Mindfulness and Experiential Eating protocol
- Fruit, vegetables, and napkins for tasting
- Tummy dolls
- Watering cans
- “Fitness Foods” game instructions
- Large pictures of fruits and vegetables
- Large pictures of unhealthy foods
- Measuring tape

Physical Activity or Nutrition Guideline or Recommendation

Dietary Guidelines for Americans, 2010 (USDA): <http://www.cnpp.usda.gov/DGAs2010-PolicyDocument.htm>

Early Childhood Obesity Prevention Policies (IOM): Recommendation 3-1, Recommendation 3-2, Recommendation 3-4, Recommendation 4-2, Recommendation 4-4, Recommendation 4-6
<http://bit.ly/2l5K6aD>

NAEYC Recommendations Satisfied

Curriculum 2.A.03, Curriculum 2.A.08, Curriculum 2.A.10, Curriculum 2.A.11, Curriculum 2.A.12, Curriculum 2.B.05, Curriculum 2.C.03, Curriculum 2.C.04, Curriculum 2.D.02, Curriculum 2.D.03, Curriculum 2.D.07, Curriculum 2.G.02, Curriculum 2.G.06, Curriculum 2.G.08, Curriculum 2.K.01, Health Standard 5.A.06

Review [5 minutes—song]

- **Song:** Review the “Seedling Song” with the children in order to review their understanding of the life cycle of a seedling.

Classroom Activity [15 minutes—discussion, game]

- **Discussion 2a:** The teacher leads the children into today’s session by asking the children what seeds need in order to grow healthy and strong. The teacher leads the children to identify water and sunlight as important nutrients to the health and growth of a seed.
- **Game:** To reinforce what is needed to plant a plant, we will play “Plant Race.”
 - For this game, we need a larger space for the children to stand in a circle and run around. They are assigned to pretend play as the sun, water, soil, or seed.
 - The teacher stands in the middle of the circle with her hands out at her sides, palms up. The teacher calls out two of the four categories (sun, water, soil, or seed). For example, she calls out “SUN and SEED race!”
 - All of the children who are named the sun and seed leave their place in the circle, run around the outside of the circle, and when they arrive at their spot again they run through to hit the teacher’s hand.
 - The teacher calls out the remaining categories, two at a time, having the children follow the same instructions.
 - If desired, the teacher can call out all four categories as a rousing ending before moving on to the next activity.

Mindful Eating [15 minutes—tummy mindfulness, experiential eating]

- **Tummy Mindfulness and Experiential Eating Protocol:**
 - Direct children to wash their hands before their taste testing.
 - Food should be served to the children with gloved hands.
 - After washing their hands, the children are presented with fruits and vegetables from the garden (or grocery store if needed) to sample. Images of a body with an empty belly, full belly, and half full belly will be available for the children to compare. The teacher describes the feelings of hunger and fullness to the children to increase their understanding of these concepts.
 - Before sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry by asking them to point to the appropriate images.
 - The teacher then calls on a few children and asks them to describe what hunger or fullness feels like. The teacher tells the children that if they are not hungry then they should only take a small taste and a bigger taste if they are hungry.
 - After sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry (point to the images).

***While the children are tasting, encourage positive conversation by making statements and asking questions that prompt the children to identify the color, smell, taste, and texture of the fruit or vegetable they are tasting, the sounds they make when they bite and chew, and what do they feel happening inside their mouths while they are chewing. Avoid statements that are coercive, like “just take a polite taste,” or “everyone has to try it.”**

For example:

“What **sound** was made when you chewed the celery? What do you feel happening inside your mouth while you chew? [*That celery was really crunchy and juicy.*]”

“How does the tomato **taste**?”

“What does the bell pepper **smell** like?”

“What does the cucumber feel like in your **hand**? [*It’s nice and cool.*]”

“What **color** are the strawberries that we are tasting?”

Garden Activity [20 minutes—garden maintenance, song, garden exploration, game]

- **Garden Maintenance and Song:** The teacher leads the children outdoors to water the garden. Once finished, the students set their water cans down. Encourage students to sing the “Seedling Song” while they water.
- **Garden Exploration:** Using real fruits and vegetables, the teacher brings the children around the garden and shows the children the fruits and vegetables that are growing in the garden. Children are encouraged to identify the fruit or vegetable, its color, its shape, how it feels (i.e. smooth, fuzzy, etc.), what stage of the life cycle, what it needs to grow, and whether it is ready for harvesting.
- **Game:** The teacher tells the children that nutrients and physical activity are important for their health and growth. To reinforce the nutrients needed for growth, we are going to play “Fitness Foods.”
 - The teacher shows the children pictures of fruits, vegetables, and unhealthy foods.
 - With each picture, the teacher asks the children if the item on the picture will help them grow strong and healthy.
 - If the picture is of something that will help grow strong and healthy, the children are invited to do a goofy dance.
 - If the picture is of something not beneficial to them, children are invited to do jumping jacks.

Wrap Up/Review [5 minutes—discussion]

- The teacher measures the lima bean so that we can continue to chart its growth.
- **Discussion 2b:** In order to further review concepts covered in this session, the teacher gathers the children around the lima bean that was planted in the last session. The teacher can ask the children questions about what stage of the lifecycle the lima bean is in, what it needs to grow (soil, water, sunshine), and relate it to what the children need to grow (water, physical activity, fruits, and vegetables).

SESSION 3

Topic: I Don't Want to be a Couch Potato!

Objective: Children will understand the importance of having a healthy diet so that they have energy to be physically active.

Key Concepts: Eating fruits and vegetables provides our bodies with fuel for physical activity so that we can grow strong muscles and bones. Plants also need food (sunshine and water) so that they can grow strong leaves and stems and beautiful flowers.

Materials Needed

- “Fitness Foods” game instructions
- Large pictures of fruits and vegetables and unhealthy foods
- Session 3 discussion card
- Large pictures of active activities including gardening activities
- Large pictures of sedentary activities
- “Gardener Says” game instructions
- Tummy Mindfulness and Experiential Eating protocol
- Fruit, vegetables, and napkins for tasting
- Tummy dolls
- Watering cans
- “Seedling Song” lyrics
- “Exercise When We Rhyme” game instructions
- Measuring tape

Diet or Physical Activity Guideline or Recommendation

Physical Activity Guidelines for Americans- Active Children and Adolescents (U.S. Department of Health and Human Services): <http://www.health.gov/paguidelines/guidelines/chapter3.aspx>

The Importance of Physical Activity (USDA):

<http://www.choosemyplate.gov/printpages/PhysicalActivity/physical-activity.why.pdf>

NAEYC Recommendations Satisfied

Curriculum 2.A.03, Curriculum 2.A.08, Curriculum 2.A.10, Curriculum 2.A.11, Curriculum 2.A.12, Curriculum 2.B.05, Curriculum 2.C.03, Curriculum 2.C.04, Curriculum 2.D.02, Curriculum 2.D.03, Curriculum 2.D.07, Curriculum 2.G.02, Curriculum 2.G.06, Curriculum 2.K.01, Health Standard 5.A.06

Review [10 minutes—game]

- **Game:** In order to review concepts from the Nutrients for Growth session, play “Fitness Foods.”

Classroom Activity [20 minutes—discussion, game]

- **Discussion 3a:** Children are led through a discussion on the importance of being physically active.
 - Children are taught that moving around is good for their bodies, gives them energy, and keeps them healthy and strong.
 - The teacher asks the children to name some of the physical activities that they participate in? The teacher reminds the children that they help maintain the garden which is an excellent source of physical activity!
 - Children are shown pictures of various activities. Some pictures will be of garden activities such as digging, raking, and harvesting and other pictures will be of sedentary behaviors such as playing video games and watching TV. The teacher holds up a picture and ask the children if the person in the picture is being physically active.
 - Using just the pictures with gardening tools, the teacher uses pretend play to show the children how each tool is used. The teacher encourages the children to perform the actions as well.
- **Game:** In order to further emphasize gardening as physical activity and practice the use of gardening tools, the teacher leads the children in a game of “Gardener Says” (played like Simon Says).
 - Children line up and the “gardener” says “Gardener Says to Dig,” and the children make a digging motion pretending to have a shovel in their hands.
 - This game is repeated as the children practice other gardening actions such as raking, watering, harvesting down low (bend at waist and bend their arms at the waist, moving them back and forth to pretend like they are picking fruits and vegetables), and harvesting high (children stand on their tip toes and pretend to pick apples from the top of the tree by reaching up high with their left and right hand).

Mindful Eating [15 minutes—tummy mindfulness, experiential eating]

- **Tummy Mindfulness and Experiential Eating Protocol:**
 - Direct children to wash their hands before their taste testing.
 - Food should be served to the children with gloved hands.
 - After washing their hands, the children are presented with fruits and vegetables from the garden (or grocery store if needed) to sample. Images of a body with an empty belly, full belly, and half full belly will be available for the children to compare. The teacher describes the feelings of hunger and fullness to the children to increase their understanding of these concepts.
 - Before sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry by asking them to point to the appropriate images.
 - The teacher calls on a few children and asks them to describe what hunger or fullness feels like. The teacher tells the children that if they are not hungry then they should only take a small taste and a bigger taste if they are hungry.

- After sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry (point to the images).

***While the children are tasting, encourage positive conversation by making statements and asking questions that prompt the children to identify the color, smell, taste, and texture of the fruit or vegetable they are tasting, the sounds they make when they bite and chew, and what do they feel happening inside their mouths while they are chewing. Avoid statements that are coercive, like “just take a polite taste,” or “everyone has to try it.”**

For example:

“What **sound** was made when you chewed the celery? What do you feel happening inside your mouth while you chew? [*That celery was really crunchy and juicy.*]”

“How does the tomato **taste**?”

“What does the bell pepper **smell** like?”

“What does the cucumber feel like in your **hand**? [*It’s nice and cool.*]”

“What **color** are the strawberries that we are tasting?”

Garden Activity [20 minutes—garden maintenance, song, garden exploration, game]

- **Garden Maintenance and Song:** The teacher leads the children outdoors to water the garden. Once finished, the students set their water cans down. Encourage students to sing the “Seedling Song” while they water.
- **Garden Exploration:** Using real fruits and vegetables, the teacher brings the children around the garden and shows the children the fruits and vegetables that are growing in the garden. Children are encouraged to identify the fruit or vegetable, its color, its shape, how it feels (i.e. smooth, fuzzy, etc.), what stage of the life cycle, what it needs to grow, and whether it is ready for harvesting.
- **Game:** The teacher leads the children in singing the “Exercise When We Rhyme” game: If two words rhyme they must perform the activity identified and if two words don’t rhyme they must jump up and down.
 - The additional word pairs are parentheses can be substituted for more options.

Lyrics

Chorus:

[Get your heart pumping

Get your legs running (Run in place)

Get your brain jumping (Jump in place)

Exercise when we rhyme]

If I say **two words that rhyme, jog in place**

If I say **two words that don't rhyme, jump up and down**

Yellow – Hello (Mango – Tango)

(You may have to prompt the students asking-do those words rhyme?)

Beet – Grape (Asparagus – Watermelon)

Carrot – Parrot (Beans – Greens)

Berry – Cherry (Pear – Air)

Apple – Avocado (Radish – Orange)

If I say **two words that rhyme, clap side to side**

If I say **two words that don't rhyme, jump up and down**

Potato – Tomato (Parsnips – Turnips)

Lime – Dime (Broccoli – Kohlrabi)

Lettuce – Lemon (Apricot – Squash)

Kiwi – Pee Wee (Yam – Ham)

(Repeat Chorus)

If I say **two words that rhyme, jump side to side**

If I say **two words that don't rhyme, jump up and down**

Banana – Cucumber (Cabbage – Fig)

Pea – Bee (Zucchini – Fettuccine)

Corn – Horn (Kale – Whale)

Spinach – Milk (Cauliflower – Watermelon)

(Repeat Chorus)

C'mon, exercise when we rhyme

Wrap Up/Review [5 minutes—discussion, song]

- The teacher measures the lima bean so that we can continue to chart its growth. Ask the children what is needed for the lima bean to grow and relate back to what children need (prompt the children to identify water, sunlight, and food-fruits and vegetables, and soil).
- **Discussion 3b:** The teacher asks the children why we need to eat a variety of fruits and vegetables. Prompt the children to the answer, to have energy to be physically active and play.
- **Song:** If there is time, the teacher leads the “Seedling Song.”

SESSION 4

Topic: It's a Watery World

Objective: Children will understand the importance of drinking adequate amounts of water in order to stay healthy and hydrated for physical activity.

Key Concepts: Water is important for plants and humans to function and grow. Children should drink 1.2 liters of water per day. Water is better than sugary and soda drinks because water does not have any sugar, preservatives or caffeine. Just like humans, plants need and store water in their stalks and leaves. Children will also learn basic concepts of where water is found in plants. These basic concepts will contribute to our garden activity.

Materials Needed

- Celery experiment instructions
- Celery experiment items (celery stick, water, jar, blue food coloring)
- Session 4 discussion card
- Large pictures of gardening activities
- "Gardener Says" game instructions
- Large picture of water content in human body
- 2 Liter bottle with water to fill to 1.2 liters
- "Watering" game instructions
- Pictures of dry, wilted plants (need water)
- Pictures of healthy plants (don't need water)
- Watering cans
- Picture of a sun
- Tummy Mindfulness and Experiential Eating protocol
- Fruit, vegetables, and napkins for tasting
- Tummy dolls
- "Seedling Song" lyrics
- "Plant Splash Relay" game instructions
- 2 Baskets
- Small blue balls for each child
- Leaf drying experiment
- Measuring tape

Diet or Physical Activity Guideline or Recommendation

Meeting the Daily Fluid Needs (CDC): <http://www.cdc.gov/nutrition/everyone/basics/water.html>

NAEYC Recommendations Satisfied

Curriculum 2.A.03, Curriculum 2.A.08, Curriculum 2.A.10, Curriculum 2.A.11, Curriculum 2.A.12, Curriculum 2.B.05, Curriculum 2.C.03, Curriculum 2.C.04, Curriculum 2.D.02, Curriculum 2.D.03,

Review [10 minutes—science experiment, discussion, game]

- **Science experiment:** In order to demonstrate that plants are filled with water, the teacher leads the children in the Celery Experiment.
 - Be sure to use celery that is fresh and firm.
 - Cut a small section off the bottom of a celery stick.
 - The celery stick is placed in a jar filled with water that has been colored with 4-5 drops of blue food coloring.
 - Over time the water will diffuse through the celery, turning it blue.

(This experiment should be started at the beginning of the session in order to show the best results.)

- **Discussion 4a:** In order to review the importance of physical activity, the teacher shows the children pictures of the activities with gardening tools that were used in the last session.
- **Game:** In order to review the gardening tools and re-emphasize that gardening is a great source of physical activity, the teacher lead the children in another game of “Gardener Says” (played like Simon Says).

Classroom Activity [20 minutes—discussion, game]

- **Discussion 4b:** In this session, the teacher explains the importance of drinking water by telling the children that water makes up about 80% of their body.
 - The teacher shows the children a picture to demonstrate this.
 - Using a 2 L bottle, the teacher fills it up to 1.2L to show the children how much water they should be drinking every day.
 - The teacher then asks the children to help identify how and where they can drink water at school (e.g. there is a water fountain by the front office or Mom and dad can pack a water bottle in our lunch bags).
- **Game:** To reinforce the importance of water, play the “Watering” game. The teacher tells the children that just like them, plants are made up of water as well.
 - The teacher engages the children in a discussion about what happens when plants and people don’t get enough water.
 - The teacher shows the children pictures of plants with lots of water and plants that are “thirsty” and have become wilted.
 - The teacher asks the children to stand up in a line and using one of the water cans, pretends to water the children. As the children receive “water” they stand up strong and tall on their tip toes with arms stretched out. The teacher then says that there is no more water and instructs the children to droop their arms as if they were wilted. Repeat several times.

- The teacher holds up a flashcard of a sun and asks the students what happens if they get too much sun, the children respond by drooping their arms, crouching down, and pretending to be “wilted.” Next the teacher holds up a watering can and asks the children what happens when the plant is watered, the children are encouraged to respond by jumping up with their arms reaching to the sky to imitate a strong healthy plant.
 - The teacher continues to do this asking the students the following questions:
 - What happens when we play all day outside in the hot sun?
 - What happens when our mom or dad gives us a large glass of water to drink?
 - What happens to our plants when it’s hot and humid outside?
 - What happens to our plants when they get a lot of rain?
 - What happens when we drink sugary and soda drinks instead of water?

Mindful Eating [15 minutes—tummy mindfulness, experiential eating]

- **Tummy Mindfulness and Experiential Eating Protocol:**
 - Direct children to wash their hands before their taste testing.
 - Food should be served to the children with gloved hands.
 - After washing their hands, the children are presented with fruits and vegetables from the garden (or grocery store if needed) to sample. Images of a body with an empty belly, full belly, and half full belly will be available for the children to compare. The teacher describes the feelings of hunger and fullness to the children to increase their understanding of these concepts.
 - Before sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry by asking them to point to the appropriate images.
 - The teacher then calls on a few children and asks them to describe what hunger or fullness feels like. The teacher tells the children that if they are not hungry then they should only take a small taste and a bigger taste if they are hungry.
 - After sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry (point to the images).

***While the children are tasting, encourage positive conversation by making statements and asking questions that prompt the children to identify the color, smell, taste, and texture of the fruit or vegetable they are tasting, the sounds they make when they bite and chew, and what do they feel happening inside their mouths while they are chewing. Avoid statements that are coercive, like “just take a polite taste,” or “everyone has to try it.”**

For example:

“What **sound** was made when you chewed the celery? What do you feel happening inside your mouth while you chew? [*That celery was really crunchy and juicy.*]”

“How does the tomato **taste**?”

“What does the bell pepper **smell** like?”

“What does the cucumber feel like in your **hand**? [*It’s nice and cool.*]”

“What **color** are the strawberries that we are tasting?”

Garden Activity [20 minutes—garden maintenance, song, garden exploration, game, science experiment]

- **Garden Maintenance and Song:** The teacher leads the children outdoors to water the garden. Once finished, the students set their water cans down. Encourage students to sing the “Seedling Song” while they water.
- **Garden Exploration:** Using real fruits and vegetables, the teacher brings the children around the garden and shows the children the fruits and vegetables that are growing in the garden. Children are encouraged to identify the fruit or vegetable, its color, its shape, how it feels (i.e. smooth, fuzzy, etc.), what stage of the life cycle, what it needs to grow, and whether it is ready for harvesting.
- **Game:** To reinforce the importance of drinking water and watering the plants, the children play the “Plant Splash Relay” game:
 - The children are split into two teams and line up as far as possible from two baskets set up for each team to run to. The baskets represent a pretend flower.
 - Each child is given a blue ball, which represents a “water droplet.”
 - The teacher says “Go” and the first child in each line runs down to the basket and places her/his “water droplet” or ball inside the “flower” or basket and then runs back to his/her line.
 - Once the first child returns, the second child runs down to the flower and deposits her/his water droplet before returning to the line.
 - While each child is relaying back and forth between baskets, the children waiting for a turn jump up and down with their arms in the air cheering for each classmate.
 - This continues until everyone has had a turn. Repeat the relay several times if time permits and have the children hop, skip, and/or run for each additional turn.
 - For additional physical activity, redistribute the blue balls for each relay by having the children run to the basket to retrieve a ball and run back to get into line.
- **Science Experiment:** To reinforce the need for water the teacher will lead the Leaf Drying experiment. As the children head back to the classroom have them pick a leaf from the garden and place it in a safe place in the classroom. The leaf will demonstrate what happens to the leaf when it becomes dehydrated.

Wrap Up/Review [5 minutes—discussions]

- The teacher measures the lima bean so that we can continue to chart its growth. Ask the children questions about what the lima bean needs to grow strong and healthy.
- **Discussion 4c:** In order to further review concepts covered about how plants store water, the teacher gathers the children around the celery experiment.
 - The children break it in half to see how far the food coloring has traveled up the celery.
 - Give the students the opportunity to pass the celery stick around.

- **Discussion 4d:** In order to further review concepts covered about the importance of water, the teacher transitions over to the drying leaf.
 - Ask the children questions about why water is important for them (prompt the children to answer that it helps keep them healthy, provides hydration to be physically active).
 - Ask what happens if a plant becomes dehydrated.
 - The teacher asks the children what will happen to the leaf next time they check on it and asks for someone to **SHOW** what will happen to the leaf (act it out) the next time they see it.

SESSION 5

Topic: Chart the Growth

Objective: Children will be able to describe the plant growth process from seedling, to fruit, to harvest. Children will understand that they need water, fruits, vegetables, and physical activity to grow healthy and strong.

Key Concepts: Children ages 2-5 years old experience rapid physical development. Just as plants need water and sunshine to grow healthfully, children need water, a healthy diet and physical activity in order to grow healthy and strong. A healthy diet and physical activity are essential to human growth and development.

Materials Needed

- “Plant Splash Relay” game instructions
- 2 Baskets
- Small blue balls for each child
- Session 5 discussion card
- Book: Pumpkin, Pumpkin by Jeanne Titherington
- Poster with pumpkin cutouts
- “Head, Shoulders, Knees, and Toes” song lyrics
- Tummy Mindfulness and Experiential Eating protocol
- Fruit, vegetables, and napkins for tasting
- Tummy dolls
- Watering cans
- “Seedling Song” lyrics
- “Follow the Leader” game instructions
- Measuring tape

Diet or Physical Activity Guideline or Recommendation

2000 CDC Growth Charts for the United States: Methods and Development (CDC):

<http://www.cdc.gov/growthcharts/2000growthchart-us.pdf>

Facts about child development (CDC): <http://www.cdc.gov/ncbddd/childdevelopment/facts.html>

Preschooler Development (Medline): <http://www.nlm.nih.gov/medlineplus/ency/article/002013.htm>

Early Childhood Obesity Prevention Policies (IOM): Recommendation 3-1, Recommendation 3-2, Recommendation 3-4, Recommendation 4-2, Recommendation 4-4, Recommendation 4-6
<http://bit.ly/2l5K6aD>

NAEYC Recommendations Satisfied

Curriculum 2.A.03, Curriculum 2.A.08, Curriculum 2.A.10, Curriculum 2.A.11, Curriculum 2.A.12, Curriculum 2.B.05, Curriculum 2.C.03, Curriculum 2.C.04, Curriculum 2.D.02, Curriculum 2.D.03, Curriculum 2.D.07, Curriculum 2.F.02, Curriculum 2.G.02, Curriculum 2.G.06, Curriculum 2.G.08, Curriculum 2.K.01, Health Standard 5.A.06

Review [10 minutes—game]

- **Game:** In order to review the importance of drinking water and watering the plants, the children play the “Plant Splash Relay” game.

Classroom Activity [15 minutes—discussion, song]

- **Discussion 5a:** This session builds upon the previous session as we continue to talk about growth and development in children and plants. Choose one of the two activities below and alternate between them each time this session is implemented.
 - The **teacher** reads *Pumpkin, Pumpkin* by Jeanne Titherington. The children act out each page of the book as it is read. For example, we start crouched down, then we grow as the pumpkin grows, and when he carves a face out of the pumpkin, we tell them to make their best pumpkin face.
 - Children review the growth process of a pumpkin using the poster with cutout pictures of the story. Ask the children to act out what they see in the pictures.
- **Song:** The teacher explains that just as plants grow up to be big and strong, so do we. The teacher leads the children in the “Head, Shoulders, Knees, and Toes!” song.
 - Instruct the children to place both hands on the part of the body as they are mentioned. Walk through each body part to ensure they understand before starting. Repeat the song several times and speed up with each verse.

Lyrics

Head, shoulders, knees and toes,
Knees and toes.

Head shoulders, knees and toes,
Knees and toes.

And eyes, and ears, and mouth,
And nose.

Head, shoulders, knees and toes,
Knees and toes.

Mindful Eating [15 minutes—tummy mindfulness, experiential eating]

- **Tummy Mindfulness and Experiential Eating Protocol:**

- Direct children to wash their hands before their taste testing.
- Food should be served to the children with gloved hands.
- After washing their hands, the children are presented with fruits and vegetables from the garden (or grocery store if needed) to sample. Images of a body with an empty belly, full belly, and half full belly are available for the children to compare. The teacher describes the feelings of hunger and fullness to the children to increase their understanding of these concepts.
 - Before sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry by asking them to point to the appropriate images.
 - The teacher then calls on a few children and asks them to describe what hunger or fullness feels like. The teacher tells the children that if they are not hungry then they should only take a small taste and a bigger taste if they are hungry.
 - After sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry (point to the images).

***While the children are tasting, encourage positive conversation by making statements and asking questions that prompt the children to identify the color, smell, taste, and texture of the fruit or vegetable they are tasting, the sounds they make when they bite and chew, and what do they feel happening inside their mouths while they are chewing. Avoid statements that are coercive, like “just take a polite taste,” or “everyone has to try it.”**

For example:

“What **sound** was made when you chewed the celery? What do you feel happening inside your mouth while you chew? [*That celery was really crunchy and juicy.*]”

“How does the tomato **taste**?”

“What does the bell pepper **smell** like?”

“What does the cucumber feel like in your **hand**? [*It’s nice and cool.*]”

“What **color** are the strawberries that we are tasting?”

Garden Activity [20 minutes—garden maintenance, song, garden exploration, game]

- **Garden Maintenance and Song:** The teacher leads the children outdoors to water the garden. Once finished, the students set their water cans down. Encourage students to sing the “Seedling Song” while they water.
- **Garden Exploration:** Using real fruits and vegetables, the teacher brings the children around the garden and shows the children the fruits and vegetables that are growing in the garden. Children are encouraged to identify the fruit or vegetable, its color, its shape, how it feels (i.e. smooth, fuzzy, etc.), what stage of the life cycle, what it needs to grow, and whether it is ready for harvesting.

- **Game:** In order to emphasize the importance of fruits and vegetables for growing healthy and strong, the teacher leads the students in a game of “Follow the Leader.”
 - The teacher chooses one of the children to be the leader and the rest of the children line up behind the leader or stand around the leader on the playground.
 - The teacher teaches the children a simple chant, “[Janet] is growing big and strong, look what she can do!”
 - The child who is the leader chooses an action such as skipping or hopping around the playground, the children follow the leader until the teacher yells out “Stop!” If necessary, the teacher can suggest actions for the child leader to choose from or tell the children what activity to perform. Options include digging, raking, jumping jacks, hopping side to side, silly dance, etc.
 - The teacher chooses a new leader and repeats the chant, “Kate is growing big and strong, look what she can do!” Repeat this game until several children have had a chance to play.

Wrap Up/Review [5 minutes—discussion]

- The teacher measures the lima bean so that we can continue to chart its growth.
- **Discussion 5b:** The teacher reviews the current and past session concepts.
 - The teacher asks the children what plants need to grow healthy and strong (prompt the children to identify water, sunshine, and soil).
 - The teacher then transitions over to the drying leaf and shows the children what has happened to the leaf now that it is dried out.
 - The teacher prompts the children with questions such as “What does the leaf feel like?,” “What does the leaf look like?,” “Why has it changed from being soft and green to brown and dry?”
 - The teacher asks the children what they need to grow healthy and strong (prompt the children to identify fruits, vegetables, water, and physical activity).

SESSION 6

Topic: Hungry Humans, Hungry Plants

Objective: Children will gain an understanding of nutrients needed to fuel their bodies and what they need to grow healthy and strong.

Key Concepts: Plants that do not receive adequate sunlight, water, or nutrients from their soil can become “hungry or thirsty” and may appear wilted and dry. Hunger is the body’s way of saying that it needs nutritious fuel. Without proper nutrients our bodies will have little energy and we may begin to feel sleepy.

Materials Needed

- “Head, Shoulders, Knees, and Toes!” lyrics
- “Awesome Appetites” game instructions
- Small pictures of fruits, vegetables, whole grains, low fat dairy
- Picture of empty body
- Tummy Mindfulness and Experiential Eating protocol
- Fruit, vegetables, and napkins for tasting
- Tummy dolls
- Watering cans
- “Seedling Song” lyrics
- “Plant Race” game instructions
- Measuring tape
- Session 6 discussion card

NAEYC Recommendations Satisfied

Curriculum 2.A.03, Curriculum 2.A.08, Curriculum 2.A.10, Curriculum 2.A.11, Curriculum 2.A.12, Curriculum 2.B.05, Curriculum 2.C.03, Curriculum 2.C.04, Curriculum 2.D.02, Curriculum 2.D.03, Curriculum 2.D.07, Curriculum 2.G.02, Curriculum 2.G.06, Curriculum 2.G.08, Curriculum 2.K.01, Health Standard 5.A.06

Review [5 minutes—song]

- **Song:** In order to review concepts about eating healthy and being physically active in order to grow big and strong, the teacher leads the students in “Head, Shoulders, Knees, and Toes!”

Classroom Activity [15 minutes—game]

- **Game:** In order to further emphasize this concept, the children participate in the “Awesome Appetites” game.
 - Hang the picture of the empty body where it can be viewed by the class.
 - Give a small picture of a fruit, vegetable, whole grain, or low fat dairy foods to each child.

- One at a time, have the children place their picture on or near the part of the body that the food benefits. Then ask all the children to demonstrate a physical activity to target that part of the body. For example, if the student has the picture of an avocado, the teacher tells the child that avocado helps keep our hearts healthy and has the child put the avocado picture on the heart. Then the teacher asks all children to run in place and explains how this activity can help strengthen the heart.
- Every child takes a turn.

Avocado: Protects your heart, keeps skin soft and healthy, helps with digestion (Run in place)

Watermelon: Maintains strong heart, helps sore muscles, keeps you hydrated (Push-ups)

Pineapple: Keeps the heart healthy, hair shiny, and skin healthy (Jumping jacks)

Eggplant: Protects the heart, good for brain and memory, helps with digestion (Run in place)

Broccoli: Good for bone health, helps with digestion, and keeps skin healthy and soft (Silly dance)

Lemon: Protects heart, helps immune system (Jumping jacks)

Orange: Protects heart, keeps skin and hair healthy (Run in place)

Mango: Good for eyes and bones (Silly dance)

Grapes: Protects heart and brain (Push-ups)

Pear: Helps with digestion and protects pancreas (High knees)

Apple: Keeps teeth and gums healthy, protects brain and pancreas (Make a circle with your hips)

Cherries: Keeps heart and bones healthy (Sit-ups)

Radish: Protects the urinary bladder, keeps skin and body hydrated (Make a circle with your hips)

Carrot: Good for eyes, boosts immune system, and regulates blood sugar (pancreas) (High knees)

Tomato: Protects heart, good for eyes (Jumping jacks)

Onion: Helps ears during earache, boosts immune system (Wiggle your ears and run in place)

Potato: Helps the brain work better, improves digestion (Jumping jacks)

Cucumber: Protects urinary bladder and kidneys (Make a circle with your hips)

Oatmeal: Good for heart, improves digestion (Make a circle with your hips)

Whole wheat bread: Good for heart and digestion (High knees)

Yogurt: Good for bones, heart, and digestion (Silly dance)

Milk: Good for bones and heart (Push-ups)

Mindful Eating [15 minutes—tummy mindfulness, experiential eating]

- **Tummy Mindfulness and Experiential Eating Protocol:**

- Direct children to wash their hands before their taste testing.
- Food should be served to the children with gloved hands.
- After washing their hands, the children are presented with fruits and vegetables from the garden (or grocery store if needed) to sample. Images of a body with an empty belly, full belly, and half full belly will be available for the children to compare. The teacher describes the feelings of hunger and fullness to the children to increase their understanding of these concepts.

- Before sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry by asking them to point to the appropriate images.
- The teacher then calls on a few children and ask them to describe what hunger or fullness feels like. The teacher tells the children that if they are not hungry then they should only take a small taste and a bigger taste if they are hungry.
- After sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry (point to the images).

***While the children are tasting, encourage positive conversation by making statements and asking questions that prompt the children to identify the color, smell, taste, and texture of the fruit or vegetable they are tasting, the sounds they make when they bite and chew, and what do they feel happening inside their mouths while they are chewing. Avoid statements that are coercive, like “just take a polite taste,” or “everyone has to try it.”**

For example:

“What **sound** was made when you chewed the celery? What do you feel happening inside your mouth while you chew? [*That celery was really crunchy and juicy.*]”

“How does the tomato **taste**?”

“What does the bell pepper **smell** like?”

“What does the cucumber feel like in your **hand**? [*It’s nice and cool.*]”

“What **color** are the strawberries that we are tasting?”

Garden Activity [20 minutes—garden maintenance, song, garden exploration, game]

- **Garden Maintenance and Song:** The teacher leads the children outdoors to water the garden. Once finished, the students set their water cans down. Encourage students to sing the “Seedling Song” while they water.
- **Garden Exploration:** Using real fruits and vegetables, the teacher brings the children around the garden and shows the children the fruits and vegetables that are growing in the garden. Children are encouraged to identify the fruit or vegetable, its color, its shape, how it feels (i.e. smooth, fuzzy, etc.), what stage of the life cycle, what it needs to grow, and whether it is ready for harvesting.
- **Game:** To reinforce what is needed to plant a plant, we play “Plant Race.” The teacher reminds the children that the sun, water, and soil all provide nutrients for the hungry plants.

Wrap Up/Review [10 minutes—garden maintenance, discussion]

- **Garden Maintenance:** The teacher removes the lima bean from the window and leads the class in planting the lima bean in the garden.
- **Discussion 6a:** While transplanting the lima bean in the garden, the teacher asks the children questions about the lima bean and relate the concepts back to the children. For example:
 - “What stage of the life cycle is the lima bean?”

- “What does the lima bean need to grow healthy and strong, and to start producing lima beans?” (Prompt the children to answer nutrients from soil, sun, and water.)
- “What different foods can help provide different nutrients to help you grow healthy and strong?”
- The teacher measures the lima bean so that we can continue to chart its growth.

SESSION 7

Topic: Am I Hungry, Just Right or Too Full?

Objective: Children will gain an understanding of hunger and fullness. Children will be able to describe sensations of hunger and fullness.

Key Concepts: Understanding hunger and fullness helps children know when to eat to avoid hunger and when not to eat to avoid overeating. Sometimes, much like children, plants show signs of being overwatered or not having enough water. Plants may become dry and wilted if they are not receiving enough water, but receiving too much water can also threaten the health of the plant.

Materials Needed

- “Awesome Appetites” game instructions
- Small pictures of fruits, vegetables, whole grains, low fat dairy
- Picture of empty body
- Tummy dolls
- “Guess which Tummy” game instructions
- Pictures of “too full, just right, and hungry” meals
- Tummy Mindfulness and Experiential Eating protocol
- Fruit, vegetables, and napkins for tasting
- Watering cans
- “Seedling Song” lyrics
- “Slug or Hopper” game instructions
- Measuring tape
- Session 7 discussion card

Diet or Physical Activity Guideline or Recommendation

Dietary Guidelines for Americans, 2010 (USDA): <http://www.cnpp.usda.gov/DGAs2010-PolicyDocument.htm>

Vegetable Health Benefits and Nutrients (USDA MyPlate):
<http://www.choosemyplate.gov/printpages/MyPlateFoodGroups/Vegetables/food-groups.vegetables-why.pdf>

NAEYC Recommendations Satisfied

Curriculum 2.A.03, Curriculum 2.A.08, Curriculum 2.A.10, Curriculum 2.A.11, Curriculum 2.A.12, Curriculum 2.B.05, Curriculum 2.C.03, Curriculum 2.C.04, Curriculum 2.D.02, Curriculum 2.D.03, Curriculum 2.D.07, Curriculum 2.F.03, Curriculum 2.G.02, Curriculum 2.G.06, Curriculum 2.G.08, Curriculum 2.K.01, Health Standard 5.A.06

Review [10 minutes—game]

- **Game:** To review concepts of hunger and fullness from the previous session, the teacher reviews the game called “Awesome Appetites.”

Classroom Activity [20 minutes—game]

- **Game:** For some extra activity, the teacher leads the children in a game called “Guess which Tummy” that helps them think about hunger and fullness.
 - Three posters are set up around the playground. One poster has a picture of a tummy that has just enough food in it, one poster has a picture of a tummy that has too much food in it, and one poster has a picture of a tummy that has too little food in it.
 - The teacher stands in the middle of the playground, shows the children a picture of the “too full” meal, and tells the children, “I had too much to eat for breakfast, I had two eggs, toast, an orange, and some berries. I feel too full, what does my tummy look like?”
 - The children are then instructed to run to the poster that has the too full tummy with too much food in it.
 - The teacher repeats this exercise using several more phrases, showing the meal pictures.

Mindful Eating [15 minutes—tummy mindfulness, experiential eating]

- **Tummy Mindfulness and Experiential Eating Protocol:**
 - Direct children to wash their hands before their taste testing.
 - Food should be served to the children with gloved hands.
 - After washing their hands, the children are presented with fruits and vegetables from the garden (or grocery store if needed) to sample. Images of a body with an empty belly, full belly, and half full belly will be available for the children to compare. The teacher describes the feelings of hunger and fullness to the children to increase their understanding of these concepts.
 - Before sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry by asking them to point to the appropriate images.
 - The teacher then calls on a few children and asks them to describe what hunger or fullness feels like. The teacher tells the children that if they are not hungry then they should only take a small taste and a bigger taste if they are hungry.
 - After sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry (point to the images).

***While the children are tasting, encourage positive conversation by making statements and asking questions that prompt the children to identify the color, smell, taste, and texture of the fruit or vegetable they are tasting, the sounds they make when they bite and chew, and what do they feel happening inside their mouths while they are chewing. Avoid statements that are coercive, like “just take a polite taste,” or “everyone has to try it.”**

For example:

“What **sound** was made when you chewed the celery? What do you feel happening inside your mouth while you chew? [*That celery was really crunchy and juicy.*]”

“How does the tomato **taste**?”

“What does the bell pepper **smell** like?”

“What does the cucumber feel like in your **hand**? [*It’s nice and cool.*]”

“What **color** are the strawberries that we are tasting?”

Garden Activity [20 minutes—garden maintenance, song, garden exploration, game]

- **Garden Maintenance and Song:** The teacher leads the children outdoors to water the garden. Once finished, the students set their water cans down. Encourage students to sing the “Seedling Song” while they water.
- **Garden Exploration:** Using real fruits and vegetables, the teacher brings the children around the garden and shows the children the fruits and vegetables that are growing in the garden. Children are encouraged to identify the fruit or vegetable, its color, its shape, how it feels (i.e. smooth, fuzzy, etc.), what stage of the life cycle, what it needs to grow, and whether it is ready for harvesting.
- The teacher measures the lima bean so that we can continue to chart its growth. Ask children questions about if the plant looks hungry or thirsty, or if it looks like it is healthy and strong.
- **Game:** In order to review concepts of hunger and fullness, the teacher leads the children in a game of “Slug or Hopper.”
 - The children stand up and the teacher shows the picture of the “too full” meal and says, “For dinner I had a glass of milk, a large piece of toast, and I ate all of my spaghetti. I feel too full to move my body. Do I feel like a slug or a hopper?”
 - The teacher guides the children to give the right answer and then instructs them to move around the room or playground like a slug.
 - The teacher then gives the children another scenario showing the picture of the “just right” meal, “For snack I had an apple, two crackers, and some milk. I feel just right and have enough energy to move my body. Do I feel like a slug or a hopper?” Once again the teacher guides the children to the right answer and then instructs the children to move around the room or playground like a hopper.
 - The teacher leads the children through a few more scenarios.

Wrap Up/Review [10 minutes—song, discussion]

- **Song:** The **teacher** leads the children in the “Seedling Song.”
- **Discussion 7a:** The teacher asks the children questions to review the concepts of hunger and fullness. For example:

- “What happens if you have too much food, how do you feel?”
- “What happens if you have too little food, how do you feel?”
- “What happens if a plant has too much water?”

SESSION 8

Topic: Eating to Make my Body Strong!

Objective: Children will be able to describe the importance of consuming a variety of fruits and vegetables for their growth and development.

Key Concepts: Consuming a variety of fruits and vegetables provides many/most of the essential nutrients for healthy growth and development in children. Similar to children, there are a variety of nutrients provided by the soil, sunshine, and water that plants need in order to grow and develop.

Materials Needed

- “Slug or Hopper” game instructions
- Pictures of “too full, just right, and hungry” meals
- Session 8 discussion card
- “Awesome Appetites” game instructions
- Small pictures of fruits, vegetables, whole grains, low fat dairy
- Picture of empty body
- Tummy Mindfulness and Experiential Eating protocol
- Fruit, vegetables, and napkins for tasting
- Tummy dolls
- Watering cans
- “Seedling Song” lyrics
- “Follow the Leader” game instructions
- “Head, Shoulders, Knees, and Toes” song lyrics
- Measuring tape

Diet or Physical Activity Guideline or Recommendation

Dietary Guidelines for Americans, 2010 (USDA): <http://www.cnpp.usda.gov/DGAs2010-PolicyDocument.htm>

Vegetable Health Benefits and Nutrients (USDA MyPlate):

<http://www.choosemyplate.gov/printpages/MyPlateFoodGroups/Vegetables/food-groups.vegetables-why.pdf>

NAEYC Recommendations Satisfied

Curriculum 2.A.03, Curriculum 2.A.08, Curriculum 2.A.10, Curriculum 2.A.11, Curriculum 2.A.12, Curriculum 2.B.05, Curriculum 2.C.03, Curriculum 2.C.04, Curriculum 2.D.02, Curriculum 2.D.03, Curriculum 2.D.07, Curriculum 2.F.03, Curriculum 2.G.02, Curriculum 2.G.06, Curriculum 2.G.08, Curriculum 2.K.01, Health Standard 5.A.06

Review [10 minutes—game]

- **Game:** In order to review concepts of hunger and fullness, the teacher leads the children in a game of “Slug or Hopper.”

Classroom Activity [15 minutes—discussion, game]

- **Discussion 8a:** The teacher starts this session by telling the children that eating a variety of fruits and vegetables are important for making our bodies grow strong. The children are asked to name some fruits and vegetables.
- **Game:** In order to further emphasize this concept, the children participate in the “Awesome Appetites” game.

Mindful Eating [15 minutes—tummy mindfulness, experiential eating]

- **Tummy Mindfulness and Experiential Eating Protocol**
 - Direct children to wash their hands before their taste testing.
 - Food should be served to the children with gloved hands.
 - After washing their hands, the children are presented with fruits and vegetables from the garden (or grocery store if needed) to sample. Images of a body with an empty belly, full belly, and half full belly will be available for the children to compare. The teacher describes the feelings of hunger and fullness to the children to increase their understanding of these concepts.
 - Before sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry by asking them to point to the appropriate images.
 - The teacher then calls on a few children and asks them to describe what hunger or fullness feels like. The teacher tells the children that if they are not hungry then they should only take a small taste and a bigger taste if they are hungry.
 - After sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry (point to the images).

***While the children are tasting, encourage positive conversation by making statements and asking questions that prompt the children to identify the color, smell, taste, and texture of the fruit or vegetable they are tasting, the sounds they make when they bite and chew, and what do they feel happening inside their mouths while they are chewing. Avoid statements that are coercive, like “just take a polite taste,” or “everyone has to try it.”**

For example:

“What **sound** was made when you chewed the celery? What do you feel happening inside your mouth while you chew? [*That celery was really crunchy and juicy.*]”

“How does the tomato **taste**?”

“What does the bell pepper **smell** like?”

“What does the cucumber feel like in your **hand**? [*It’s nice and cool.*]”

“What **color** are the strawberries that we are tasting?”

***While the children are tasting, encourage positive conversation by making statements and asking questions that prompt the children to identify the color, taste, and texture of the fruit or vegetable that they are tasting.**

Garden Activity [20 minutes—garden maintenance, song, garden exploration, game]

- **Garden Maintenance and Song:** The teacher leads the children outdoors to water the garden. Once finished, the students set their water cans down. Encourage students to sing the “Seedling Song” while they water.
- **Garden Exploration:** Using real fruits and vegetables, the teacher brings the children around the garden and shows the children the fruits and vegetables that are growing in the garden. Children are encouraged to identify the fruit or vegetable, its color, its shape, how it feels (i.e. smooth, fuzzy, etc.), what stage of the life cycle, what it needs to grow, and whether it is ready for harvesting.
- The teacher measures the lima bean so that we can continue to chart its growth. Ask the children what nutrients the lima bean needs.
- **Game:** In order to emphasize the importance of fruits and vegetables for growing healthy and strong, the teacher leads the students in a game of “Follow the Leader.”

Wrap Up/Review [10 minutes—song, discussion]

- **Song:** In order to emphasize the importance of eating a variety of fruits and vegetables to have a strong body the teacher asks the children to stand in a circle and leads the children in the “Head, Shoulders, Knees, and Toes” song.
- **Discussion 8b:** The teacher reviews the concepts of the session by asking the children questions:
 - “Where do plants get nutrients from?”
 - “Where do you get nutrients from?”

SESSION 9

Topic: Being Active in the Garden!

Objective: Children will understand that gardening is a fun way to be physically active.

Key Concepts: Gardening provides many opportunities to be physically active. Eating fruits and vegetables provides our bodies with fuel for physical activity so that the children can grow strong muscles and bones. Plants also need food so that they grow strong leaves and stems.

Materials Needed

- “Head, Shoulders, Knees, and Toes” song lyrics
- Session 9 discussion card
- “The Little Gardener” book
- “Exercise When We Rhyme” game instructions
- Tummy Mindfulness and Experiential Eating protocol
- Fruit, vegetables, and napkins for tasting
- Tummy dolls
- Watering cans
- “Seedling Song” lyrics
- Measuring tape
- “Plant Splash Relay” game instructions
- 2 Baskets
- Small blue balls for each child

Diet or Physical Activity Guideline or Recommendation

Physical Activity Guidelines for Children (CDC):

<http://www.cdc.gov/physicalactivity/everyone/guidelines/children.html>

NAEYC Recommendations Satisfied

Curriculum 2.A.03, Curriculum 2.A.08, Curriculum 2.A.10, Curriculum 2.A.11, Curriculum 2.A.12, Curriculum 2.B.05, Curriculum 2.C.03, Curriculum 2.C.04, Curriculum 2.D.02, Curriculum 2.D.03, Curriculum 2.D.07, Curriculum 2.G.02, Curriculum 2.G.06, Curriculum 2.G.08, Curriculum 2.K.01, Health Standard 5.A.06

Review [5 minutes—song]

- **Song:** In order to review the importance of eating a variety of fruits and vegetables to have a healthy and strong body, the teacher leads the children in the “Head, Shoulders, Knees, and Toes” song.

Classroom Activity [20 minutes—discussion, game]

- **Discussion 9a:** The teacher reads the “The Little Gardener” to the children to teach them about what is needed to take care for a garden besides water and seeds.
 - The teacher has the children stand during the reading and encourages them to act out each page as it is read using pretend play.
 - The teacher reviews the importance of being physically active and reminds the children that gardening is a great way to be physically active.
- **Game:** In order to emphasize fruits and vegetables give us energy for physical activity, the teacher leads the children in a game of “Exercise When We Rhyme” game.

Mindful Eating [15 minutes—tummy mindfulness, experiential eating]

- **Tummy Mindfulness and Experiential Eating Protocol**
 - Direct children to wash their hands before their taste testing.
 - Food should be served to the children with gloved hands.
 - After washing their hands, the children are presented with fruits and vegetables from the garden (or grocery store if needed) to sample. Images of a body with an empty belly, full belly, and half full belly will be available for the children to compare. The teacher describes the feelings of hunger and fullness to the children to increase their understanding of these concepts.
 - Before sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry by asking them to point to the appropriate images.
 - The teacher then calls on a few children and asks them to describe what hunger or fullness feels like. The teacher tells the children that if they are not hungry then they should only take a small taste and a bigger taste if they are hungry.
 - After sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry (point to the images).

***While the children are tasting, encourage positive conversation by making statements and asking questions that prompt the children to identify the color, smell, taste, and texture of the fruit or vegetable they are tasting, the sounds they make when they bite and chew, and what do they feel happening inside their mouths while they are chewing. Avoid statements that are coercive, like “just take a polite taste,” or “everyone has to try it.”**

For example:

“What **sound** was made when you chewed the celery? What do you feel happening inside your mouth while you chew? [*That celery was really crunchy and juicy.*]”

“How does the tomato **taste**?”

“What does the bell pepper **smell** like?”

“What does the cucumber feel like in your **hand**? [*It’s nice and cool.*]”

“What **color** are the strawberries that we are tasting?”

Garden Activity [20 minutes—garden maintenance, song, garden exploration, game]

- **Garden Maintenance and Song:** The teacher leads the children outdoors to water the garden. Once finished, the students set their water cans down. Encourage students to sing the “Seedling Song” while they water.
- **Garden Exploration:** Using real fruits and vegetables, the teacher brings the children around the garden and shows the children the fruits and vegetables that are growing in the garden. Children are encouraged to identify the fruit or vegetable, its color, its shape, how it feels (i.e. smooth, fuzzy, etc.), what stage of the life cycle, what it needs to grow, and whether it is ready for harvesting.
- The teacher measures the lima bean so that we can continue to chart its growth. Ask the children if the lima bean is getting the nutrients it needs and if there are any weeds that need to be removed to help the lima bean grow.
- **Game:** In order to reinforce how watering plants is a fun way to get physical activity, the children play “Plant Splash Relay.”

Wrap Up/Review [10 minutes—discussion and song]

- **Discussion 9b:** The teacher reviews the concepts of the session, prompting children when necessary.
 - The teacher asks the children questions, such as:
 - “What are some physical activities you can do in the garden?”
 - “What do the plants in our garden need to be healthy and strong?”
 - “What do you need to be healthy and strong?”
 - Ask the children questions about the plants growing in the garden (e.g., how they look, are they getting enough nutrients)
- **Song:** The teacher leads the class in the “Seedling Song.”

SESSION 10

Topic: Nutrients to Stay Healthy

Objective: Children will understand that plants and humans need water and nutrients in order to remain healthy and have energy for physical activity.

Key Concepts: Children need water and the healthy nutrients found in fruits and vegetables just like plants need water and sunshine in order to grow healthy and strong bones and muscles so that they can lead a physically active lifestyle.

Materials Needed

- “Plant Splash Relay” game instructions
- 2 Baskets
- Small blue balls for each child
- “Follow the Leader” game instructions
- Tummy Mindfulness and Experiential Eating protocol
- Fruit, vegetables, and napkins for tasting
- Tummy dolls
- Watering cans
- “Seedling Song” lyrics
- Measuring tape
- “Red Apple, Green Apple” game instructions
- Pictures of yellow, green, and red apples
- “Head, Shoulders, Knees, and Toes” song lyrics
- Session 10 discussion card

Diet or Physical Activity Guideline or Recommendation

Dietary Guidelines for Americans, 2010 (USDA): <http://www.cnpp.usda.gov/DGAs2010-PolicyDocument.htm>

Early Childhood Obesity Prevention Policies (IOM): Recommendation 3-1, Recommendation 3-2, Recommendation 3-4, Recommendation 4-2, Recommendation 4-4, Recommendation 4-6
<http://bit.ly/2I5K6aD>

NAEYC Recommendations Satisfied

Curriculum 2.A.03, Curriculum 2.A.08, Curriculum 2.A.10, Curriculum 2.A.11, Curriculum 2.A.12, Curriculum 2.B.05, Curriculum 2.C.03, Curriculum 2.C.04, Curriculum 2.D.02, Curriculum 2.D.03, Curriculum 2.D.07, Curriculum 2.G.02, Curriculum 2.G.06, Curriculum 2.G.08, Curriculum 2.K.01, Health Standard 5.A.06

Review [10 minutes—game]

- **Game:** In order to reinforce physical activity, the children play “Plant Splash Relay.”

Classroom Activity [10 minutes—game]

- **Game:** In order to emphasize the importance of fruits and vegetables for growing healthy and strong the teacher leads the students in a game of “Follow the Leader.”

Mindful Eating [15 minutes—tummy mindfulness, experiential eating]

- **Tummy Mindfulness and Experiential Eating Protocol**
 - Direct children to wash their hands before their taste testing.
 - Food should be served to the children with gloved hands.
 - After washing their hands, the children are presented with fruits and vegetables from the garden (or grocery store if needed) to sample. Images of a body with an empty belly, full belly, and half full belly are available for the children to compare. The teacher describes the feelings of hunger and fullness to the children to increase their understanding of these concepts.
 - Before sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry by asking them to point to the appropriate images.
 - The teacher then calls on a few children and asks them to describe what hunger or fullness feels like. The teacher tells the children that if they are not hungry then they should only take a small taste and a bigger taste if they are hungry.
 - After sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry (point to the images).

***While the children are tasting, encourage positive conversation by making statements and asking questions that prompt the children to identify the color, smell, taste, and texture of the fruit or vegetable they are tasting, the sounds they make when they bite and chew, and what do they feel happening inside their mouths while they are chewing. Avoid statements that are coercive, like “just take a polite taste,” or “everyone has to try it.”**

For example:

“What **sound** was made when you chewed the celery? What do you feel happening inside your mouth while you chew? [*That celery was really crunchy and juicy.*]”

“How does the tomato **taste**?”

“What does the bell pepper **smell** like?”

“What does the cucumber feel like in your **hand**? [*It’s nice and cool.*]”

“What **color** are the strawberries that we are tasting?”

Garden Activity [20 minutes—garden maintenance, song, garden exploration, game]

- **Garden Maintenance and Song:** The teacher leads the children outdoors to water the garden. Once finished, the students set their water cans down. Encourage students to sing the “Seedling Song” while they water.
- The teacher measures the lima bean so that we can continue to chart its growth. Ask the children what stage in the lifecycle the lima bean is in.
- **Garden Exploration:** While outside, the children are encouraged to feel the soil and are reminded that it has important nutrients the plants need in order to grow healthy and strong. The children are also encouraged to feel the sunshine on their arms and are reminded that the sun gives the plants important nutrients that it needs in order to grow healthy and strong.
- **Game:** In order to emphasize the importance of eating healthy foods in order to have energy for physical activity, the teacher leads the children in a game of “Red Apple, Green Apple.”

Wrap Up/Review [10 minutes—song, discussion]

- **Song:** The teacher leads the children in the “Head, Shoulders, Knees, and Toes” song.
- **Discussion 10a:** The teacher reviews the concepts of the session, prompting children when necessary. For example:
 - “What do plants need to grow healthy and strong?”
 - “What do you need to grow healthy and strong?”
 - “Why do you need [water, fruit, vegetables, physical activity]?”

SESSION 11

Topic: Time to Harvest!

Objective: Children will learn how to properly harvest, wash and store produce from the garden.

Key Concepts: Fruit and vegetables from the garden need to be harvested properly, washed to avoid ingesting dirt, and stored properly for eating. It is important to know when to harvest the produce so that we do not pick any fruits or vegetables before they are ready.

Materials Needed

- “Seedling Song” lyrics
- “Bunny Hop” game instructions
- Pictures of fruits and vegetables
- Pictures of matching ripe and unripe fruits and vegetables
- Session 11 discussion card
- “Matching” game instructions
- Tummy Mindfulness and Experiential Eating protocol
- Fruit, vegetables, and napkins for tasting
- Tummy dolls
- Measuring tape
- “Exercise When We Rhyme” game instructions

NAEYC Recommendations Satisfied

Curriculum 2.A.03, Curriculum 2.A.08, Curriculum 2.A.10, Curriculum 2.A.11, Curriculum 2.A.12, Curriculum 2.B.05, Curriculum 2.C.03, Curriculum 2.C.04, Curriculum 2.D.02, Curriculum 2.D.03, Curriculum 2.D.07, Curriculum 2.F.03, Curriculum 2.G.02, Curriculum 2.G.06, Curriculum 2.G.08, Curriculum 2.K.01, Health Standard 5.A.06

Review [5 minutes—song]

- **Song:** The teacher leads the class in the “Seedling Song.”

Classroom Activity [25 minutes—game, discussion, game]

- **Game:** In order to emphasize the concept of harvesting ripe fruits and vegetables, the teacher leads the children in a game of “Bunny Hop.”
- **Discussion 11a:** The teacher leads a discussion about harvesting.
 - The teacher starts the session by telling the children that today they are talking about how to harvest plants and fruit from the garden.
 - The teacher asks children if they know what it means to harvest before giving them the definition. Harvesting means to pick fruits and vegetables that are ripe.

- The teacher tells children that fruits and vegetables let us know when they are ready to be harvested by changing color, growing to a certain size, and by the “ripe” smell.
 - First, the teacher asks the children what veggies/fruits look like when they are ripe.
 - Then, to illustrate this point, the teacher shows the children pictures of ripe and unripe fruits and vegetables.
- **Game:** The teacher leads the children in a game of “Matching.”
 - Pictures of ripe fruits and vegetables are placed face-up on the ground around the playground.
 - Pictures of unripe fruits and vegetables are distributed to each child.
 - The teacher tells the children to frog jump to the ripe fruit or vegetable that matches the unripe one they have in their hands.
 - Once all children have found their matching ripe fruits or vegetables, the children exchange cards and find the new ripe fruit or vegetable, while doing a different physical activity.
 - The teacher encourages the children to continue exchanging cards and matching it with the correct ripe fruit or vegetable, changing the physical activity each time (i.e. run while flapping arms like a bird, hop while flapping arms and buzzing like a bee, etc.).

Mindful Eating [15 minutes—tummy mindfulness, experiential eating]

- **Tummy Mindfulness and Experiential Eating Protocol:**
 - Direct children to wash their hands before their taste testing.
 - Food should be served to the children with gloved hands.
 - After washing their hands, the children are presented with fruits and vegetables from the garden (or grocery store if needed) to sample. Images of a body with an empty belly, full belly, and half full belly will be available for the children to compare. The teacher describes the feelings of hunger and fullness to the children to increase their understanding of these concepts.
 - Before sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry by asking them to point to the appropriate images.
 - The teacher then calls on a few children and asks them to describe what hunger or fullness feels like. The teacher tells the children that if they are not hungry then they should only take a small taste and a bigger taste if they are hungry.
 - After sampling the fruits and vegetables, the teacher asks the children if they are too full, just right, or hungry (point to the images).

***While the children are tasting, encourage positive conversation by making statements and asking questions that prompt the children to identify the color, smell, taste, and texture of the fruit or vegetable they are tasting, the sounds they make when they bite and chew, and what do they feel happening inside their mouths while they are chewing. Avoid statements that are coercive, like “just take a polite taste,” or “everyone has to try it.”**

For example:

“What **sound** was made when you chewed the celery? What do you feel happening inside your mouth while you chew? [*That celery was really crunchy and juicy.*]”

“How does the tomato **taste**?”

“What does the bell pepper **smell** like?”

“What does the cucumber feel like in your **hand**? [*It’s nice and cool.*]”

“What **color** are the strawberries that we are tasting?”

Garden Activity [10 minutes—garden maintenance, garden exploration, song]

- **Garden Maintenance and Song:** The teacher leads the children outdoors to water the garden. Once finished, the students set their water cans down. Encourage students to sing the “Seedling Song” while they water.
- **Garden Exploration:** Using real fruits and vegetables, the teacher brings the children around the garden and shows the children the fruits and vegetables that are growing in the garden. Children are encouraged to identify the fruit or vegetable, its color, its shape, how it feels (i.e. smooth, fuzzy, etc.), what stage of the life cycle, what it needs to grow, and whether it is ready for harvesting.
- The teacher measures the lima bean so that we can continue to chart its growth. Ask the children if the lima bean has any fruit that will need to be harvested.

Wrap Up/Review [10 minutes—discussion, game]

- **Discussion 11b:** The teacher reviews the concepts of the session, prompting children when necessary.
 - The teacher asks the children questions:
 - “What does it mean to harvest?”
 - “How do you know when a [insert fruit/vegetable] is ready to harvest?”
- **Game:** If time is available, the teacher ends the session by playing a game of “Exercise When We Rhyme.”

SESSION 12

Topic: SAGE Garden Party!

Materials Needed

- Invite parents to attend the Garden Party in advance
- Ask the children which songs and games they would like to play
- Tummy Mindfulness and Experiential Eating Protocol
- Fruit, vegetables, and napkins for tasting
- Tummy dolls
- “Seedling Song” lyrics
- “Gardener Says” game instructions
- “Plant Splash Relay” game instructions
- 2 Baskets
- Small blue balls for each child
- “Exercise When We Rhyme” game instructions
- Pictures of yellow, green, and red apples
- “Red Apple, Green Apple” game instructions

Garden Activity [60 minutes]

- The teachers set up stations that host several games that were played throughout the SAGE program. Children are allowed to move from station to station to play each game. Options can include:
 - Tummy Mindfulness and Experiential Eating Protocol
 - “Seedling Song”
 - “Gardener Says”
 - “Plant Splash Relay”
 - “Exercise While We Rhyme”
 - “Red Apple, Green Apple”