



## LiveWell Kids Nutrition and Garden

### Grade: Kindergarten

### Module 1: Mindful Tasting in the Garden

#### Objectives

- Identify color, shape, texture, and taste of garden grown food
- Introduce concept of mindfulness
- Harvest and taste warm season crops
- Learn about different crops and the seasons in which they grow

#### Lesson Supplies:

##### **Garden Supplies:**

- Pumpkin for cutting
- Sunflower for seeding
- Cutting board
- Food handling gloves
- Bowl for collecting seeds
- Pruners
- Large Knife
- Trays (2)
- Garden gloves

#### Food Sample

##### **Food Tasting Supplies:**

- 1 bag of edible pumpkin seeds (1 bag per class)
- 1 bag of edible sunflower seeds (1 bag per class)
- Food handling gloves
- Paper Towel (1 per student)

##### **Preparations and Servings:**

1. Place 1-2 pumpkin seeds and 1-2 sunflower seeds on a napkin
2. Serve to students

##### **Food Allergen**

Seeds are packaged so there is a possibility that they have been processed in a facility where peanuts may be present. Please inform your teacher so they can advise parents of the potential peanut allergy.

#### **Garden Stations Preparations:**

##### **Setting Up the Pumpkin Station:**

- Wearing garden gloves, select a pumpkin that's ready to harvest and clip it from the vine with the pruners.
- Place the pumpkin on the cutting board and cut it vertically in half with a knife.
- Leave it open for the kids to explore during the lesson.

##### **Setting Up the Sunflower Station:**

- Wearing garden gloves, select a sunflower and clip it from the vine with the pruners.
- Place the sunflower head on a tray.
- Set a bowl next to the tray for collecting seeds.

## 1. Mindful Breathing (5 Minutes, done in the classroom, on the rug)

### Say:

Hi everyone. My name is \_\_\_\_\_ and welcome to the first LiveWell Kids Nutrition and Garden Education lesson of the year. We are parents who have volunteered to come here and teach you what we've learned about gardening, nutrition and healthy eating!

Today we will be going to the garden to learn about how to harvest warm weather crops. Before we go outside I want to tell you a little bit about a word called "**mindfulness**". *Mindfulness* is paying attention to what is going on *right now*. Let's start with learning to have "**mindful bodies**" which means your body is still and relaxed. Let's practice that now. If you notice your fingers or feet are moving, stop and let them be still. Turn your mindful bodies off for a second and tap the ground. When I say "Mindful Bodies!" make your body still and relaxed.

(Wait a few seconds and watch the class fidget and then say) "Mindful Bodies!" Are your bodies still and relaxed?

Let's do this one more time. Turn your mindful bodies off by fidgeting. "Mindful Bodies!" (Pause and look to see if the class is still.) Nice work on getting your bodies to be mindful and still. Now let's add a chime to this so we can practice mindful listening with our bodies being still and relaxed.

### Do:

- Ask the students to sit quietly. Tell them to think of a string at the top of their head going up to the ceiling so that their spine is tall, but relaxed. Ask them to place their hands on their bellies.
- Explain to your class that you are going to ring the chime, and that they should listen to the sound carefully. Ask them to raise their hand when they can't hear it any more. Ring the chime once and allow the class to listen quietly.
- Ask them if they think the chime sound will last longer if they close their eyes. Have them close their eyes and ring the chime again. Ask them if they noticed the chime lasting longer.
- Tell them you are going to ring the chime one more time and that this time, you would like them to close their eyes again and, if they are comfortable, breathe slowly and deeply through their noses and then slowly let the breath out through their mouths. Tell them you will do this for about 30 seconds and putting hands on their bellies will help them feel their breath rise and fall in their bodies. Ring the chime and breathe slowly with the students for about 30 seconds.
- At the end of the 30 seconds, ring the chime again and ask them to slowly open their eyes. Ask them how the chime made them feel. Listen for words like relaxed, calm, focused.
- Give the students a challenge to practice mindful listening every day for a few moments. Ask them to really listen to what's around them, maybe on the way to school or maybe after they lay down to go to sleep at night. Let them know that taking mindful breaths can help when they are feeling stressed, angry or worried.

## 2. Walk to Garden (2-5 Minutes, depending on class location)

### Do:

- Ask the students to line up to get ready to walk to the garden. Solicit the teacher's help to get the student lined up if necessary.

### Say:

Boys and girls, while we are walking to the garden, let's practice our mindful listening. Listen as we walk and really pay attention to all of the sounds, loud or soft, around you. Maybe you will hear other children talking, or birds chirping, or the sound of the breeze in the trees. Ok, let's go.

### Do:

- Walk with the children and watch to see if they are practicing mindful behavior. Provide them with cues of what to listen for as you walk.
- At the end of the walk, point out something that you heard and then ask a couple of students what they heard.

### 3. *Garden Rules (1 Minute)*

**Do:**

- Point out the “Garden Rules” sign
- Review the garden rules with the students:
  - Always walk when in the garden
  - Stay on the paths
  - Always ask before using any tool or picking any crop
  - Respect each other as well as all living creatures in the garden

### 4. *Garden & Nutrition Education (25 Minutes Total)*

#### *Walking in the Garden: (4 Minutes)*

**Say:**

Today we are going to explore the garden mindfully. Remember, being mindful means paying attention to what’s around us, what we are doing, and how we feel. One of the best ways to do that is to use our senses. We want to make sure we have mindful bodies. In the garden, we get to grow many plants such as fruits and vegetables. All plants start out as seeds and with the proper care, they grow into healthy plants.

Let’s explore the fruits and vegetables we see in the garden. We will pay attention to the color, the shape, and how it feels. Later, we will have an opportunity to do a mindful tasting.

**Do:**

- Walk the students around the garden beds to practice mindful seeing.
  - Have the students identify what is growing in the garden bed (if they can).
  - Ask the class the color of the plants. Feel free to include additional things growing other than pumpkins and sunflowers.
  - Ask students if they can name the shape.
  - Tell the class the benefits of pumpkins and sunflowers:
    - Pumpkins have a lot of Vitamin A which is good for our eyes. The seeds are good for our heart too.
    - Sunflower seeds are high in Vitamin E which is good for our skin and heart.
- Use directional words while walking through the garden (i.e. “the pumpkins are growing through....,” “the sunflowers are behind...” etc.).
- Ask them to count how many items are in a row or on a plant, such as “how many xxx are on this plant?” or “how many xxx plants are growing in this row?” Use comparative words, like “are there more or less of....?”

#### *Harvesting the Garden:*

**Say:**

Now we are going to harvest a sunflower and pumpkin. Then we will do a mindful tasting of sunflower and pumpkin seeds back in the classroom.

**Do:**

- Tell the students there are different types of crops that grow during different seasons: cool-season crops and warm-season crops. Warm season crops like warmer soil, more sun, and longer days

(more hours of sunlight per day). If warm season crops are planted during the winter, they wouldn't grow as well because they don't like the cooler weather.

- Tell the students the plants they are about to harvest and taste were planted in the spring and grew over the summer. That is why we call these foods warm season crops.
- Divide the class into 2 smaller groups. One group will harvest and explore a pumpkin and the other group will harvest and explore a sunflower. Then the groups will switch stations.

### **Pumpkin Station (8 minutes)**

- At the garden bed, show the students a pumpkin on its vine
- Tell the students the pumpkin is the fruit of the pumpkin plant
- Show the students the pumpkin is ready to harvest because:
  - The color is deep orange
  - The skin is tough enough to resist the scratching of my fingernail (demonstrate a gentle scratching)
  - The leaves are drying and turning brown (show them the leaves)
  - The vine is dying off (show them what the vine is)
- Bring the students back to where a pumpkin has been placed on a picnic table. The pumpkin should be cut in half vertically so the children can easily see inside. Have the students look inside the pumpkin and then feel inside the pumpkin and describe what they see and feel (i.e., squishy, slimy, sticky, bumpy, etc.).
- Tell the class pumpkin seeds grow in a “web” of stringy fibers. Some seeds are safe for us to eat, and some are not, so always find out before you try. Pumpkin seeds ARE safe to eat. Many of you have eaten toasted pumpkin seeds as a healthy snack. Notice how thick the meat of the pumpkin is; this is delicious when it's baked, made into soup or bread. It's so healthy and full of vitamins.

### **Sunflower Station (8 minutes)**

- Show the students the sunflower. Tell the students the sunflower is ready to harvest because:
  - They are wilted (drooping over)
  - They are dry and brown
  - The seeds are exposed, and starting to work their way out
  - Most of the petals have fallen off
- Tell the students that the seed heads have been covered up to catch the seeds so that they don't fall to the ground; it also keeps animals from eating the seeds.
- Cut this seed head off and carry it over to the tray and colander to remove the seeds. **(If you have a seed head already harvested, you won't need to cut one. Lead the kids to the sunflower station).** Have the children follow you and sit around you.
- Have students approach the seed head, 1 or 2 at a time and remove a couple of its seeds, putting them in the bowl. Have the students describe what they see and feel (i.e., squishy, slimy, sticky, bumpy, etc.).
- Tell the class that black seeds are used to make Sunflower Oil, while striped seeds are used to eat as a healthy snack. The striped edible seeds are packed with nutrients for the plant to grow. When we eat these seeds, we get all of those nutrients too. One sunflower can have up to 2,000 seeds.

### **After Both Stations are Complete (Hand Washing – 5 minutes)**

#### **Do:**

- Bring all the students near the sink or the hose.
- Thank them for practicing mindfulness in the garden and ask them what they enjoyed learning about mindful seeing, smelling, touching.
- Ask them to come up to wash their hands and that after their hands are clean, they should line up to walk back to the classroom.

## 5. *Walk back to the Classroom (2-5 Minutes, depending on class location)*

### **Say:**

Now we are going to walk back to the classroom. Let's try to practice mindful listening again. See if you hear anything different as you walk back to your classroom.

### **Do:**

- Walk with the children and watch to see if they are practicing mindful behavior. Provide them cues of what to listen for as you walk.
- At the end of your walk, point out something that you heard and then ask a couple of students to share their experiences.

## 6. *Mindful Tasting (5 minutes)*

### **Say:**

Now that we have had the opportunity to explore the garden and harvest sunflowers and pumpkins, and we've talked about what being mindful means, we are going to try our food and practice tasting them mindfully. Remember, do not eat or touch anything yet. I will let you know when it is time to pick up the seed and taste it. We are going to wait until everyone is ready so we can do a mindful tasting exercise together.

### **Do:**

- Be respectful to food.
- Please don't say "yuck" or "gross. Just because you don't think you may like it doesn't mean someone else won't so you don't want to "Yuck someone else's yum!" Everyone say "Don't Yuck My Yum!"
- Please try to take at least one bite.
- Use all of your senses.

### **Do:**

Start with a mindful breathing exercise:

- Sit tall and relax the shoulders.
- Close your eyes, breathe in slowly through your nose, filling up your chest and belly and slowly breathe out through the mouth.
- Have students interact with the food using all of their senses. Engage them with the following questions:

### **Say:**

#### **See**

- What is the food's name?
- How is it grown? On a tree, bush, vine, or underground?
- Notice the size, shape, and color of the seeds. How are they similar and how are they different?

#### **Smell**

- Slowly smell the seeds. Does the scent remind of you a place, a person or experience?
- Do both seeds smell the same?
- How would you describe this scent? Does it smell sweet, strong, or spicy?

#### **Touch**

- Use your finger and touch the seeds. Do they feel soft, spongy, hard, or slippery?
- How does it feel in your hand? Heavy or light?

***Taste and Hear (Have students wait until after they swallow to share their experiences.)***

- Take a bite of the first seed and let it sit on your tongue. Pay attention to how it feels in your mouth.
- Bite slowly and chew just a few times but don't swallow, notice the flavors. Is it sour, bitter, sweet, salty?
- Do you hear anything? Is the food crunchy or squishy? Is it making any noise when you chew?
- Keep chewing slowly several times but do not swallow yet. Does the taste change as you chew? When you're ready to swallow, feel the food going down into your stomach. Can you feel the food moving down your body?
- Let's try it with the other seed now. **(Repeat the tasting process)**

**Do:**

- Have students share their experiences. Thumbs up if you liked the food and thumbs sideways if you're not sure. Remind them that it may take several times of trying a new food before they like it.
- Have the students describe the differences between the sunflower and pumpkin seeds.

## 7. *Workbook Activity (5 Minutes)*

***The workbook activity can be done during this lesson or later in the week with the teacher. Please connect with the teacher to determine when the activity will be completed and who will facilitate it. If the workbook activity will be delivered during the week by the teacher, please skip to the "Reflection" section.***

**Say:**

Okay everyone, now we are going to do an activity in our workbooks. For this, you will need crayons.

**Do:**

- Identify all of the fruits and vegetables on the worksheet. Reinforce the colors of each.
- As students are completing the activity, walk around the classroom and acknowledge their work.
- Review all of the colors of the fruits and vegetables with the class.
- Ask which fruit or vegetable is their favorite.

## 8. *Reflection (3 Minutes)*

**Say:**

Thank you, class. I hope you enjoyed your lesson today! As I clean up, I would like you to take out your workbooks and turn to the reflection page. Please write or draw something that you learned today or favorite thing we did during this lesson. You will have a couple of minutes to complete this.

**Do:**

- Once students are finished writing their reflections, collect all the workbooks and place in the bin in the classroom.
- Thank the students, teacher and classroom aide (if applicable) for their time.
- Return all materials to your school's LiveWell garden shed.

## Glossary:

- **Mindfulness**<sup>1</sup> (Noun): The practice of maintaining a nonjudgmental state of heightened or complete awareness of one's thoughts, emotions, or experiences on a moment-to-moment basis; also: such a state of awareness.

## Did You Know?<sup>2</sup>

- Vegetables are important sources of many nutrients including:<sup>3</sup>
  - Carbohydrates
  - Vitamin A (keeps eyes and skin healthy and helps to protect against infection)
  - Vitamin C (helps heal wounds and keep teeth and gums healthy, and aids in iron absorption)
  - Vitamin E (acts as an antioxidant)
  - Folate (helps the body form red blood cells)
  - Potassium (helps maintain healthy blood pressure)
  - Dietary fiber (aids in digestive health)
- Fruits are also an important source of many nutrients including:<sup>4</sup>
  - Vitamin C (promotes growth and repair of all body tissues, helps heal cuts and wounds, and keeps teeth and gums healthy)
  - Fiber (aids in digestion)
  - Folate (helps the body form red blood cells)
  - Potassium (helps maintain healthy blood pressure, and helps keep your bones strong and healthy as you get older)
- Sunflower seeds:<sup>5</sup>
  - Sunflower seeds are an excellent source of vitamin E, which can help inflammation within the body.
  - Sunflower seeds are a good source of magnesium. Numerous studies have demonstrated that magnesium helps reduce the severity of asthma, lower high blood pressure, and prevent migraine headaches, as well as reducing the risk of heart attack and stroke. This also helps to strengthen bones.
- Pumpkin seeds:
  - Pumpkin seeds contain antioxidants like carotenoids and vitamin E. Antioxidants can reduce inflammation and protect your cells from harmful free radicals.
  - Pumpkin seeds are also a good source of magnesium, which can also help control blood pressure, reduce the risk of heart disease, and help to regulate blood sugar level.

## Education Standards

- LiveWell Kids applies California Health Education and Common Core standards in each lesson. For more information, please visit our website.

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<sup>1</sup> <http://www.merriam-webster.com/dictionary/mindfulness>

<sup>2</sup> [https://www.jstage.jst.go.jp/article/bpb/34/1/34\\_1\\_128/\\_article](https://www.jstage.jst.go.jp/article/bpb/34/1/34_1_128/_article)

<sup>3</sup> American Dietetic Association Complete Food and Nutrition Guide – 4<sup>th</sup> Edition

<sup>4</sup> American Dietetic Association Complete Food and Nutrition Guide – 4<sup>th</sup> Edition

<sup>5</sup> Muhammad Anjum, Faqir, et al. "Nutritional and therapeutic potential of sunflower seeds: a review." *British Food Journal* 114.4 (2012): 544-552.