



## Planting a Pickle Garden

**KEY CONCEPTS:** Pickling; Food Preservation; Seeding; *Soft Skill: Grit*  
**AGE RANGE:** 3rd– 5th grade  
**TIME:** 60 minutes

**OVERVIEW:** Pickling is a *BIG DILL!* Farmers often grow and yield more crops than they are able to distribute or consume before they rot. They work tirelessly all year long to grow their crops and do not want any of them to go to waste. The pickling process was invented to preserve vegetables. There are lots of other benefits to the practice of pickling. In this lesson, you will be introduced to the history and process of pickling, and plant your very own pickle garden.

**MATERIALS:** *\*This is a resource intensive lesson. If you don't have access to planting materials or a garden, read the Modifications section of lesson plan for alternative activities\**

- Computer, iPad or phone to watch videos
- Outdoor (or indoor) area to explore
- Pencil and/or colored pencils
- Paper or Journal
- Pickle Garden Planting Materials
  - Seed Envelope: **Pickling Mix** if using Green Heart Kits (contains herbs like dill)
  - Soil (use extra [speedy soil mixture](#) if using Green Heart Kits)
  - Pot
  - Water
- Measuring tape
- [What is Pickling Handout](#)
- [Lowcountry Seasonal Produce Chart](#)<sup>1</sup>
- [How to Care for Windowsill Plants Video](#)<sup>2</sup>
- Taste-Test: pickled vegetable or healthy snack to “taste-test”



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## WARM-UP

**WATCH:** [Green Heart Rules of Respect video](#)

**WRITE DOWN:** The 3 Green Heart Rules in your journal:

1. Respect Yourself
2. Respect Your Green Heart Buddies
3. Respect the Earth

**DRAW:** a T-Chart in your journal. See example below.

Pickles	Pickling
Definition:	Definition:
Picture/Notes:	Picture/Notes:

**READ:** The [What is Pickling Handout](#) to learn about the history and process of **pickling**. Use your T-Chart to take notes and/or illustrate a picture as you learn about the processing of pickling and how it is different from pickles. \*For support see the [Pickling T-Chart Answer Key](#)\*

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**ANSWER:** in your journal, answer the following questions:

1. Compare and contrast pickles vs. **pickling**. If you have not already, draw a picture and add notes to your T-Chart.
2. Explain why people in India **invented** the pickling process?
3. Analyze what would happen if people in India could not **preserve** their food?

## ACTIVITY

In this lesson, your job is to plant herbs commonly used to flavor pickles. In about 10 weeks, you will harvest these herbs to use in the pickling process with fruits and vegetables!

**OBSERVE:** photos of some of Green Heart's 5th grade students planting a pickling garden.



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**PLAN:** your pickle garden – what herbs will you include to flavor your pickling brine? Will you plant other vegetables that you can pickle? Engineers and architects brainstorm before they begin to build. This strategy helps them generate ideas and organize their thoughts.

**ANSWER-** in your journal, answer the following **questions:**



1. Why do you think people add herbs/spices when they cook?

2. List some herbs/spices you might use to pickle. *hint: peek in your spice cabinet, or think about a meal you ate that had lots of flavor.*

3. What are some fruits and vegetables that would be fun to pickle?

**RESEARCH-** different herbs/spices. In your journal, write down the names of the herbs you will use in your pickle mix.

**PREDICT-** how long it will take for your herb mix to grow using the information from your research. Take notes in your journal.

**LIST-** possible fruits and vegetables to pickle, using the [Lowcountry Seasonal Produce Chart](#).<sup>1</sup> What will be “in season” in ~10 weeks from today?

**PLANT:** your herb seeds into a plastic pot/container. *Note – you can also direct seed into an outdoor pot or garden bed. And you could also plant or seed other vegetables that will be ready to harvest in 10 weeks – such as carrots, radishes, or turnips.*

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1. **FILL:** your pot with your soil mixture all the way to the top.
2. **LOCATE:** your seed packet. For dill and other herbs, plant 3-4 seeds about 1/4 inch deep in the pot. If planting other herbs or vegetables, be sure to research how deep, and how many seeds you should plant in your pot or in your garden bed. See our [square foot gardening chart](#) for more information.
3. **COVER:** the seed with soil (“tuck it in”) and wish it good luck!
4. **GIVE:** your seed some water and place the pot in a sunny location - a windowsill or outside. Keep the soil moist until the dill seedling pops up. Then water about 1x/week. *\*Dill should appear in 10 days, and be ready to harvest in 10 weeks.\**

**WATCH:** how to best care for window sill seeds in this [video](#)<sup>2</sup>.

## TASTE TEST

In every Green Heart lesson, there is the option to do a “taste-test.” This is an opportunity to be brave and try a new, healthy food!

**PREPARE:** Now that you’ve learned the history of pickling, and planted your herbs for a later pickling lesson, it’s time to taste! Get your taste-test ready. Ideas for today’s taste test include pickles or another healthy snack.

**WATCH:** [How to do a Green Heart Taste-Test: Rules & Ratings](#).

**TRY:** 3..2..1.. Taste-test!

**RATE:** After trying your taste-test, give it a Green Heart rating.

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## REFLECTION & CONCLUSION

**REFLECT:** on the pickling process. Discuss out loud, or write your answer to the following **questions** down in your journal:

**1. Describe the process of pickling.**

- Why is pickling considered a 'technology'?
- Why do we pickle?
- Who originally invented pickling?

**2. List veggies/fruits you would want to pickle in the future based on the herbs you planted.**

**CONCLUDE:** Pickles are something you eat, whereas pickling is a technology, or process that people in India used over hundreds of years ago to preserve extra food. This means that you can pickle most vegetables and fruits! Begin to think about the food item you will pickle in a few weeks when your herbs have grown into mature plants.

## DIGGING DEEPER

Modifications:

- If you do not have access to planting materials, list all types of crops you might pickle. Peek in your fridge to give you some ideas!
- Create a few different pickling recipes. Think about the different spices that would pair with certain vegetables. *Here's a hint: apple cider vinegar will be sweeter, white vinegar will be saltier.*

Extensions:

- Research different ways farmers and food producers reduce food waste today. Answer the **question: How has food preservation evolved over the years?** Brainstorm some different solutions and write a pitch to 'sell' your idea.
- Write a letter, or illustrate a picture to encourage people at home to reduce food waste and begin pickling.

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- Cross-curricular Lesson Connections:
  - Find a quiet place to write, or read a book outside in nature. Check out these [Farm to School books](#). Suggestion: *The Pickle Patch Bathtub* by *Frances Kennedy*.
  - Imagine if you were a farmer living in India 4,000 years ago. Write in the perspective of the farmer who invented this process.
  - Use math to determine volumes needed, based on a ratio, to safely preserve a food item in the pickling process. Here is an [example](#).<sup>3</sup>

#### Educator Notes:

- If completing with a larger group, break into small groups of 3-5 students to complete the planting activity. Have students take turns participating in the planting activity by reminding them one way to respect our buddies is by taking turns and cheering them on!
- If you are unable to do the planting activity: 1) stop by the store to pick up some fresh herbs/spices for students to smell and feel, or 2) use transplants instead of seeds.
- Soft Skill: Grit (Strength or determination; the ability to keep working through a challenging moment). This lesson is an opportunity for students to demonstrate grit towards planting their herb/spice garden. Planting gets messy and sometimes certain seeds grow better than others. Students will encourage the seed to grow even when it's hard!

#### SCIENCE STANDARDS:

- 5.P.2B.1 Obtain and communicate information to describe what happens to the properties of substances when two or more substances are mixed together.
- 5.P.2B.3 Develop models using observations to describe mixtures, including solutions, based on their characteristics.
- 5.L.4B.2 Develop and use models of food chains and food webs to describe the flow of energy in an ecosystem.
- 5.L.4B.4 Construct scientific arguments to explain how limiting factors (including food, water, space, and shelter) or a newly introduced organism can affect an ecosystem.

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HEALTH STANDARDS: M-K 5.1 Demonstrate the ability to cooperate with others (e.g., sharing, listening, taking turns).

References:

1. [Coastal Conservation League](#) GrowFood Carolina - 2020 Annual Crop Calendar
2. How to Care For Windowsill Plants [Video](#)
3. Growing Minds Farm to school '[In a Pickle](#)' [Math Extension Lesson](#)

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