Herbs/Plant Sale Unit

Grade Level: 2\textsuperscript{nd} or 3\textsuperscript{rd}

Season: Fall/Spring

Larger IGS Unit: Farms, Garden

Essential Question: Where does food come from? What are herbs? Why are herbs important?

Objective: Students will be able to identify different herbs, and will know how to utilize herbs in a variety of ways. Students will understand the ways our ancestors used plants for food, medicine, personal care, and household uses. Students will also be able to collect and save seeds for future plantings.

Materials:
- A small selection of herbs or herbed foods to taste
- Labels from a variety of food products, personal care products, and non-prescription medicine
- For visit with community partners: good walking shoes and clothes for the weather, herb journals, pencils, sterilized baby food jars for seed collecting and saving
- For planting: potting soil, growing lights, plastic flats, watering cans, clean spray bottles, popsicle sticks for labeling, seeds, heating pads, compost
- For booklets: cardstock for cover and back, rings, string or ribbon to attach to pot
- Books (see book list at end)

Community Partners:
- Holly Bellabuono
- Beetlebung Farm
- Morning Glory herb trail
- FARM Institute
- Native Earth Teaching Farm
- Plymouth Plantation – to study their “kitchen gardens”
- MV Historical Society – to learn about indigenous plants
- Saskia and David Vanderhoop (native herbs, planting and seed saving methods)
- Caitlin Jones at Mermaid Farm – to learn about seed saving

Introduction:
Invite students to taste the herbs/snacks. Students share what flavors they recognize, what they like, why they like certain flavors. Introduce the topic of herbs – there are so many herbs, and so many varieties, and they each have their own uses. Some in food, some in medicine, some are used in our soaps and shampoos! We are going to learn about herbs, how to use them, and finally how to grow them ourselves.
Hand out labels to groups or pairs of students and ask them to read through them together.
Ask students, “Do we recognize the ingredients in the food and products we buy?”
Invite students to share the ingredients that they recognize. Next invite students to share ingredients they don’t recognize. Make lists on the board.

Bring students together in a circle. Explain that as we learn about herbs and their uses, it is important to find out what we already know. Create a KWL sheet (I Know-I Wonder-I Learned) about herbs, medicines, and personal care products.
Starting with the ingredients students could recognize, fill out the “K” section of the sheet. Where do these ingredients come from? Why would they be used in these products?
Using the list of unfamiliar ingredients, being the “W” section of the sheet. What are these ingredients? Where do they come from? Why would they be used in these products?
Explain to students that the final part of their KWL sheet (“I Learned”) will be completed at the end of this unit, after they’ve found some answers to their questions—and maybe by then they’ll have discovered they have even more questions!

Hand each student their own herb journal (or this could be a section of their science journals). Invite the students to choose one of the “I Wonder” questions from the KWL sheet, and write it in their notebook. This will be a question they will try to answer over the course of the next few weeks.

**Farm Visits and Tastings:**
1. Visit with our community partners (listed above) who will take us on an herb walk.
   As students walk they will pick and taste a tiny sample from each plant. In their journals they will draw a sketch of the herbs that are most tasty to them and label it with the herb name. Each student should choose at least 3 herbs.
   a. Students will ask our community partner about growing needs and conditions of their herbs as well as uses for their herbs and record this information in their journals.
   b. Students will ask each community partner if they have herb seeds they would be willing to donate so the student can begin growing those herbs.
2. Visit the grocery store. Notice where the fresh food is located in the store. Record in journals which herbs are sold there, how much they cost and for what quantity. Ask the store manager where each herb is purchased from.

**Project:**
Back in the classroom students will select one herb that they would like to study and grow. Students who have chosen the same herb can partner up for this project. Groups of three would work too.
Students will research their herb. They will generate questions to guide their research. If the following questions have not been included in their generated list, ask them to include:
a. The origin of the herb (where did it originally grow? When was it introduced to our culture? Is it indigenous to our region?)
b. What are the culinary uses for this herb?
c. What are the medicinal uses for this herb?
d. What are the personal care product uses for this herb?
e. What type of growing conditions does this herb like?
f. What other cultures use this herb?

Each student will create a small (4”x3”) booklet about their herb based on the information gathered from their research.

Students will be guided through the steps to planting and growing herbs from seed and then plant the seeds they have collected from community partners (or elsewhere). Students will care for their herb plants as they grow and mature.

**Plant Sale:**
Students begin to create an herb business, deciding when and how to sell the plants (in school, at the farmer’s market, in the community somewhere, etc). They make posters to advertise their business/sale (date, time, location, price, a small blurb about the project). Students discuss and determine a fair price for each herb plant, and calculate how much money they anticipate earning. They will also discuss and decide as a class what they want to do with the money earned from plant sales. Some possibilities for using the money include, but are not limited to:

- Buying materials for next year’s planting
- Donating it to a community farm partner
- Saving it for a field trip

**Cooking with Herbs:**
Students plan a meal to be made with their selected herbs.

- If the meals can be easily made in the classroom students will do this in small groups at school.
- If the meals require stoves and/or more elaborate cooking materials the students will ask their families to assist them in the meal preparation.

Decide on a date and time for a class/family dinner. If there is interest and enough resources, a larger gathering (school wide?) may be arranged to share the culinary delights of using local herbs in cooking. If this latter idea is chosen, herb plants with the attached booklets can be sold at the dinner.

**Wrap up/ Assessment:**
1. Journal entries
2. Discussion participation
3. Digital photos and video of students in action
4. Herb booklet
Extensions:

Notes/Resources:

*Herbs to consider:*
Sorrel
Chives
Cilantro
Parsley
Dill
Scallions
Rosemary
Thyme
Basil
Chamomile
Sage
Mint
Lavender
Oregano
Lemon Basil
Lemon Thyme
Lemon balm

*Uses to consider:*
Potpourri
Cooking
Soap
Incense
Moisturizing cream
Insect repellent
Aromatic
Teas
Tinctures
Medicinal remedies
Books

*Encyclopedia of Herbs & Their Uses* by Deni Bown

*The Encyclopedia of Herbs, Spices, & Flavorings* by Elisabeth Lambert Ortiz

*Encyclopedia of Herbal Medicine: The Definitive Home Reference Guide to 550 Key Herbs with all their Uses as Remedies for Common Ailments* by Andrew Chevallier and Gillian Emerson—Roberts

*Song of the Seven Herbs* by Walking Night Bear

*A Kids' Herb Book* by Lesley Tierra

*Medicinal Plants Coloring Book* by Ilil Arbel

*Shanleya's Quest: A Botany Adventure for Kids Ages 9-99* by Thomas J. Elpel

*Walking the World in Wonder: A Children's Herbal* by Ellen Evert Hopman

*Herbs Coloring Book* by Stefan Bernath

*ABC's of Bumps & Bruises, a guide to home & herbal remedies for children* by Theresa Roberts

*The Herb Growing Book* by Rosemary Verey, Barbara Firth, and Elizabeth Wood

*The Yummy Alphabet Book: Herbs, Spices, and Other Natural Flavors (Jerry Pallotta's Alphabet Book)* by Jerry Pallotta and Leslie Evans

*Flavor Foods: Spices & Herbs (Plants We Eat)* by Meredith Sayles Hughes

*Herb Seasoning* by Julian F. Thompson

*Growing Your Own Herbs (Time-Life Complete Gardener)* by Time-Life Books

Connection to Curriculum Frameworks:

1. **Science**
   a. Recognize that plants and animals go through predictable life cycles that include birth, growth, development, reproduction, and death.
   b. Identify the structures in plants (leaves, roots, flowers, stem, bark, wood) that are responsible for food production, support, water transport, reproduction, growth, and protection.
   c. Recognize plant behaviors, such as the way seedlings’ stems grow toward light and their roots grow downward in response to gravity. Recognize that many plants and animals can survive harsh environments because of seasonal behaviors, e.g., in winter, some trees shed leaves, some animals hibernate, and other animals migrate.

2. **Math**
   a. Select and use a variety of strategies (e.g., front-end, rounding, and regrouping) to estimate quantities, measures, and the results of whole-
number computations up to three-digit whole numbers and amounts of money to $1000, and to judge the reasonableness of the answer.

3. Language Arts
   a. Follow agreed-upon rules for discussion (*raising one’s hand, waiting one’s turn, speaking one at a time*).
   b. Contribute knowledge to class discussion in order to develop a topic for a class project.
   c. Identify formal and informal language use in advertisements read, heard, and/or seen.
   d. Write brief summaries of information gathered through research.
   e. Use appropriate language for different audiences (*other students, parents*) and purposes (*letter to a friend, thank you note, invitation*).
   f. Revise writing to improve level of detail after determining what could be added or deleted.
   g. Improve word choice by using dictionaries.
   h. Use knowledge of correct mechanics (*end marks, commas for series, capitalization*), usage (*subject and verb agreement in a simple sentence*), and sentence structure (*elimination of fragments*) when writing and editing.
   i. Use knowledge of letter sounds, word parts, word segmentation, and syllabication to monitor and correct spelling.
   j. Identify and apply steps in conducting and reporting research.

4. Health
   a. Identify the key nutrients in food that support healthy body systems (skeletal, circulatory) and recognize that the amount of food needed changes as the body grows.
   b. Identify the key nutrients in food that support healthy body systems (skeletal, circulatory) and recognize that the amount of food needed changes as the body grows.
   c. Identify the connection between food served in the home with regional food production.
   d. Describe the components of a nutrition label and how to use the information from the labels to make informed decisions regarding food.
   e. Describe how food choices are influenced by availability, individual and family preferences, media, and background, and identify healthy foods within various social groups.