Module 1: Introduction to the Garden

Garden Exploration

Objectives
Students will be able to:
- become familiar with the layout of the garden
- use observation skills to complete the activity
- find reputable information on-line

Oregon Content Standards:
1.3S.2 Record observations with pictures, numbers, or written statements

2.3S.3 *Make, describe, and compare observations, and organize recorded data.*

ET.3.B Locate, organize and use information ethically from a variety of sources and media.

ET.3.C Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.

ET.4.A Identify and define authentic problems and significant questions for investigation.

Vocabulary
Observation, opinion, expert, senses

Garden Rules
- Walk in the garden
- Feet on the paths, not the beds
- Use tools correctly and responsibly
- Always ask before picking or eating anything

Background

This first lesson in the garden is important because it lays the foundations for your students' garden experience for the rest of the year. Taking the time to review the rules and expectations of being in the garden is essential for setting clear boundaries that the kids can then operate within. It also helps the students gain a better sense of place through observation and exploration. Lastly, it allows them to work as a team to complete their task. Cooperation and team work are essential to a successful garden class.

Project

Beginning Inquiry

Length- 20 minutes- 1 hour
Materials- paper and pencils, butcher paper/white board, Internet access
Preparation- cut out a sheet of butcher paper if needed

1) After students have had a chance to familiarize themselves with the garden using some of the activities below (especially the garden rules), have them make a list of interesting things that they noticed in the garden. Give them 5 minutes for this. If needed, they can walk around the garden again to jog their memories.

2) Get back together as a whole group. On a large piece of butcher paper or a large white board, write GARDEN in the middle and circle it. From there, write out (or let students one at a time write) some of the things that they noticed. Circle each one and put them around the word garden. Next, have the group come up with a question they have about each of these things.

3) Pick one of these questions. Have the group brainstorm ways they could answer their question (do an experiment, look it up on-line or in a book, ask an expert, etc). Pick one of the questions for the students to answer using on-line research in pairs. Talk about the accuracy of the answers they're finding. Also have them search for a local expert that they could email and ask.

Garden Rules continued

- Be respectful of garden life and people

Garden Tasks

- Focus efforts on tending the garden, as it is likely in need of some TLC since it is the beginning of the school year.
- Harvest and taste more of the garden bounty!
- Plant fall crops.

Tasting Etiquette

It's very important to talk about how to taste with kids. Gross faces or kids spitting things out makes other students less likely to try new things. Let students know that everyone's sense of taste is different and that each student should have the chance to make their own decision about taste.

- Try a tiny amount to start- if you like it you can have more, if you don't it's small enough that you can swallow it.
- Keep negative comments and faces to yourself.
- Spitting things out is unacceptable, that's why you should only take a little to start.
- Instead of saying they like or dislike it, encourage students to describe the taste.

STEM Professional Connection: You may want to make some connections with local garden experts that the students can email questions to.

Activities

The activities below can be used to introduce or review the project concepts.

Garden Rules and Introduction

Length- 15 minutes
Materials- optional white board and markers to write down rules
Preparation- establish or review garden rules

Welcome the students to the garden by introducing yourself and learning their names. Briefly explain your behavioral expectations and the garden rules (*School Garden Project rules are listed below*):

- Walk in the garden
- Feet on the paths, not on the beds
- Use tools correctly and responsibly
- Always ask before picking or eating anything
- Be respectful of garden life and people

Scavenger Hunt

Length- 15-20 minutes
Materials- garden map, pencils, clipboards, scavenger hunt sheets, rulers
Preparation- draw a simple map of the garden with directional references; print out scavenger hunt sheets and make copies of the map

In small groups or pairs, students will try to find various things in the garden. Explain that this activity is not a race- the point is to familiarize themselves with the garden. Pass out the garden maps and clipboards. Give directions:

- Give the group one thing at a time to find.
- Each group needs to stay together and everyone in the group needs to see whatever they're looking for before they can go back to the adult and find out what they're looking for next.
- Explain that they don't need to pick or bring anything; they just need to be able to say where they found it and mark it on their garden map.

You can also give the students the scavenger hunt sheet to find and mark things on their own- this will make it a faster activity.

Camera

Length- 10-15 minutes
Materials- blindfolds
Preparation- none

This is a good activity to pair with the Garden Sketch since it gets students to start making observations. Tell the students to find a partner. Explain that they will play human camera to share a thing that caught their attention in the garden. One of the pair will close their eyes. Their partner will lead them to something in the garden. They will position their partner so they will be looking directly at that object. Then they say, "click" and take off the blindfold so their

partner will open their eyes to see what 'picture' has been chosen for them. Each partner will take one 'picture' each.

Bring the group back together and ask a couple of pairs to share what their partners or they took "pictures" of. Explain that while they were playing, they were using the skill of observation, which is one of the most valuable skills for a gardener to have. Ask them to share with the group some of the reasons this might be true.

Garden Sketch

Length- 15-30 minutes
Materials- garden sketch sheet, clipboards, pencils
Preparation- print out enough garden sketch sheets

Students will be making an observational drawing of the garden. Demonstrate for students how to use the Garden Sketch sheets. Bring out the Garden Sketch Frame and demonstrate how to use it. Sketch what you observe, and share your thought process out loud with the students. Make sure to emphasize sketching what you see; for example if there is a flower in the sketch, they should sketch what they see, not what they think a flower looks like. Then complete each statement around the outside of the frame: "I noticed…" (observation), "I like…"(opinion), "I think….because…" (inference), "I already know…" (prior knowledge) or "Based on my observations, I wonder…" (inquiry).

Check for questions and then tell them to find a spot in the garden to observe and sketch from. Give them 10-15 minutes to sketch. Circulate to help, encourage and focus them.

Older students can draw their own map of the garden that they will use for other activities later on. They will want to make their garden map as detailed as possible. Use these individual maps to create a garden map with the whole group.

Sensory Garden Tour

Length- 10-50 minutes
Materials- blindfolds, smell containers, paint chips, paper, pencil, clipboards
Preparation- make the smell containers, determine what can be tasted in the garden

Briefly explain that they will explore the garden using all their senses. Ask what the five senses are: sight, smell, taste, touch, and hearing. Split the students into groups and have them go through some or all of the stations below. Spend 10 minutes at each station.

Station 1: Sight
Explain that sight is one of our dominant senses. Have the students look around the garden. Ask them what colors they see. Then focus on green. Ask them how many shades of green they can see. Give each student or pairs of students a paint chip with a different color on it. Their task is to go around the garden and find something that matches their exact paint chip color. Repeat if desired. Finish by talking about whether or not the students thought this task was difficult or easy. What colors were easy and what colors were hard?

Station 2: Smell
Tell the students that smell can bring back memories faster than any other sense. It also has a lot to do with what we taste. Have the students sit in a circle with you. Explain that they are going to smell some things with their eyes closed and try to guess what it is using just their nose. With their eyes closed, pass one container at a time under the students' noses. Then let them guess what it is they smelled. Ideas: compost, lemon balm, basil, grass, flowers…

Station 3: Taste
At this station students will get to taste some things from the garden. First talk about tasting etiquette-

- Don't discourage others from trying things.
- Let everyone make up their own mind about whether or not it's good.
- Keep thoughts and facial expressions to yourself until everyone has had a chance to try for themselves.
- Take just a little to start to see if you like it or not. If you like it you can get more.

After each food they taste, have the students describe the taste. Go over what good descriptive words are first: sweet, sour, crunchy, soft, salty, etc. Good and bad are not very descriptive.

Station 4: Touch
Play "Find a Plant". Students will be blindfolded. The non-blindfolded partner will lead their blindfolded friend to a plant in the garden. They will feel the plant, smell it, and try to memorize it with their fingers. Then they will be led back to the start, the blindfold will come off and they will try to figure out which plant it was that they were touching. It's best to make them walk different ways to and from the start to confuse them about where they were. Make sure to demonstrate good ways to lead partners around obstacles ahead of time and watch to see that the students are walking next to their partner, not pushing them from behind. After one partner has found their plant, have them switch. Finish by talking about how they figured out which their plant was.

Station 5: Hearing
Make a sound map. Have the students sit either in the middle of the garden or at its edge facing away from it. Give each student a piece of paper. They will close their eyes and listen. After a few minutes have them write down not just what they heard but also where it came from in the garden. Have everyone compare sound maps and see if they all heard the same things or different things. Encourage them to try to see how many sounds not made by humans they can hear.

SCAVENGER HUNT: Find each of the items listed below, then draw it on your map and label it.

Find the plant that we eat the root of. (carrot, beets)

Find an edible flower. What is it called? (nasturtiums, borage, sunflower, fava)

Find 2 different beneficial insects. What are they? (bees, butterflies, worms, spiders, etc. all ok).

Locate and name 3 different fruit plants growing in the garden. (tomatoes, peppers, strawberries, melons, squash)

What are the names of 2 plants with leaves that we eat? (kale, chard, bok choy, oregano, cilantro).

There are a couple of plants in the garden that we eat the stem of (this may be a tricky questions). Potatoes, sunchokes, asparagus, celery (may also answer chard, kale, etc.)

Mark the spot where there are beans growing. What color are the flowers? What part of the plant do we eat?

Draw a plant that we eat the seeds of (sunflowers, beans).

Find the tallest sunflower. Measure it.

Describe how the soil feels. (Past students have used words like “clayey or sandy”)

Name 2 other plants in the garden that you know the names of that you have not listed above.

Put question marks on your garden map of the plants you don’t know the name of.

Lower Ed and new SGP students option:

<u>SCAVENGER HUNT #2:</u> Find each of the items listed below, then draw it on your map and label it.

HINT: a *fruit* is something with seeds inside of it, *roots* are underground

Find the carrot plant (this is tricky because the orange root that we eat is below the ground). And mark it on your map.

Find 2 different flowers in the garden and draw them on your map.

Find 2 different bugs. Draw them somewhere on your map. Do you know what they are called?

Find 3 different plants we eat the fruit of in the garden. Draw them on your map. Can you name them?

Find 2 plants with leaves that we eat. Draw them on your map. Can you name them?

Can you find the beans? Where are they growing? What color are the flowers. Draw them on your map.

Draw a plant that we eat the seeds of.

Measure the shortest sunflower.

Find a spot of soil. Mark it on the map. How does it feel?

Put question marks on your garden map of the plants you don't know the name of.

ANSWERS **<u>SCAVENGER HUNT #1:</u>** Find each of the items listed below, then draw it on your map and label it.

Find the plant that we eat the root of. *(carrot, beets)*

Find an edible flower. What is it called? *(nasturtiums, borage, sunflower, fava)*

Find 2 different beneficial insects. What are they? *(bees, butterflies, worms, spiders, etc. all ok).*

Locate and name 3 different fruit plants growing in the garden. *(tomatoes, peppers, strawberries, melons, squash)*

What are the names of 2 plants with leaves that we eat? *(kale, chard, bok choy, oregano, cilantro).*

There are a couple of plants in the garden that we eat the stem of (this may be a tricky questions). *Potatoes, sunchokes, asparagus, celery (may also answer chard, kale, etc.)*

Mark the spot where there are beans growing. What color are the flowers? What part of the plant do we eat?

Draw a plant that we eat the seeds of *(sunflowers, beans).*

Find the tallest sunflower. Measure it.

Describe how the soil feels. *(Past students have used words like "clayey or sandy")*

Name 2 other plants in the garden that you know the names of that you have not listed above.

Put question marks on your garden map of the plants you don't know the name of.