

## **Garden Lesson**

**Topic:** Planning the Vegetable Garden

### **Learning Points:**

- Planning a vegetable garden is like setting a goal. You need to decide what you want and then figure out how to accomplish it.
- Planning a vegetable garden requires taking the time to learn key information and steps in order to have a successful harvest.
- Key information includes determining the answers to the Who, What, Where, When, and How about planning a vegetable garden.
- There are a great number of resources to help you become a successful gardener.
- Gardening is a continuous learning process.

### **Common Core Standards:**

Science: K-LS1-1: Use observations to describe patterns of what plants and animals need to survive.

Science: K-ESS3-3 Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

Science 2-LS4-1: Make observations of plants and animals to compare the diversity of life in different habitats.

Science 3-LS3-2: Use evidence to support the explanation that traits can be influenced by the environment.

(Apply to the method used in germinating and transplanting plants and their impact on plant development)

Speaking and Listening K-SL3 thru 3-SL3: Ask and answer questions.....for understanding.

### **Items Needed:**

- Computer and TV/Monitor to project school garden plan and planning guide (available digitally and in paper)
- 1 yard stick
- Notepad and pencil
- (optional) calculator to determine surface area and number of plants

### **Preparation:**

- Prepare your school garden planner
- Prepare your school garden scale drawing
- If you have more than one bed, prepare one bed in advance, so students have a visual of finished process.
- If you only have one bed, prepare half of the bed in advance.
- Set up and test computer and TV/Monitor in advance of classes.
- Secure key to school garden if entrance is locked.
- Bring garden drawing and planting guide(s) with you to the garden on a clipboard. You could make several copies so groups of students could refer to them while in the garden.
- Plan time for students to wash their hands after garden activity.

## Begin Class Lesson (In the Classroom):

### Questions to create attention/interest: (2 minutes)

Does anyone have a vegetable garden at home?

What vegetables or fruits do you grow?

### Introductory Statement: (7 minute)

Today we are going to learn how to plan a vegetable garden.

- Planning a vegetable garden is like setting a goal. You need to decide what you want and then figure out how to get it.
- Planning a vegetable garden requires taking the time to learn key information and steps in order to have a good harvest, which is the goal.
- Key information includes determining the answers to the Who, What, Where, When, and How questions.
  - Who will Plan the garden? Anyone who has an interest and is willing to do some research about vegetable gardening
    - ✓ Determine who will eat the crops and get them (family, school, etc.) involved
    - ✓ There is a great amount of information available on the internet
  - What will you plant? Plant the fresh foods that are liked by those who will eat the crops
    - ✓ Create a list of plants
    - ✓ Be willing to add a new fresh vegetable or fruit if you have room in your garden
  - Where will you place the garden? A garden can be created in many places:
    - ✓ Planting pots, barrels, raised beds, or directly in the ground.
    - ✓ Plants need light, usually at least 6 to 8 hours a day
    - ✓ Place garden where it is convenient to the house or classroom and a water faucet
    - ✓ Place garden where it can be protected from heavy winds (or create a wind barrier)
    - ✓ You may need an electrical outlet near by (if you use an electrical timer)
  - When will you plant? Research what the best time of year is for the vegetable plants on your list
    - ✓ Look at seed packets, internet sites, and talk with nursery people, friends and neighbors
    - ✓ Use a Frost Dates Table to help decide when to sow seeds or plant seedlings outdoors
  - How will you plan your garden?
    - ✓ Create a planner that lists the following information for each crop:
      - How much space does each plant need when fully grown (maturity size)?
      - Do you sow seeds indoors or directly outdoors?
      - When should you sow seeds?
      - When should the crop be ready to harvest?
      - What plants need more protection from hot or cold weather?
      - What plants grow better next to each other (companion plants)?
    - ✓ Make a scale drawing of your planting area and place plants into your drawing to determine how many plants will fit in your garden area once they reach their full size.
    - ✓ Make changes to your plan until you are satisfied that it meets all your needs.

**Activity:** (3 minutes)

In the classroom (continued):

- Show students (project on TV) the drawing of your school garden. Let them know that it doesn't have to be fancy. It could be a hand drawing on a piece of paper, but would help if it is to scale so you have an accurate visual picture of how much space is needed and how many plants could be planted.
- Show students (project on TV) a vegetable garden planning guide for your school, so they can see the type of information that helps them properly plant their crops.

**Activity:** (15 minutes)

In the garden:

Have students walk to the garden - Direct them to the raised beds area

- Show students an example of a garden bed that has already been prepared for planting.
  - ✓ The holes or stakes in the soil represent where plants will be planted
  - ✓ The planner is our guide as to what plants will go where
- Show students how to lay out part of a garden bed:
  - ✓ Refer them to both the garden drawing as well as the garden planner
  - ✓ Let students know that the drawing and the planner are guides and they might want to make last minute changes based on the number, size, and condition of the plants at time of planting
- Show students one of the drip systems so they know how important it is for the newly planted crops (or seeds) to have a steady, reliable source of water from the moment they are placed in the garden.

**Questions:** (3 minutes)

- Any questions about what we have covered today?
- For seedlings that have been grown inside, what must we do before we transplant them into our outdoor garden?
- Can anyone tell me what "hardening off" means? (prepare the seedlings for transplanting outdoors by leaving them outdoors for longer periods of time and eventually all day and night for several days).
- What is our goal in this garden? (have a good harvest)

**Wrap Up**

**Statements:** (2 minutes)

To reach our goal of having a good harvest in the school garden or in your home garden requires that you take all the right steps along the way. That means:

- Properly sowing the seeds at the correct depth in good soil
- Keeping the soil moist and at the correct temperature
- Giving the seedlings proper lighting
- "Hardening off" the seedlings during the two weeks before you place them outside in your garden.
- Properly plan the placement of seeds and seedlings in the garden so they have the best opportunity to grow healthy.

Wash hands

Return to class