

lesson topic: **Mapping the Garden**

overview

In this lesson, students will: learn about the main features of a map and then practice by creating a map of the school garden.

objectives

In this lesson, students will learn:

- how to use geographic terms to describe the attributes of a given location
- to use a map or model to document and communicate information
- to evaluate the key elements needed for a healthy garden
- how humans depend on the natural and man-made environment

materials

For this lesson, you will need:

- sample maps
- cardstock 8 ½ x 11"
- 2-3 sheets graph paper
- hole punchers
- medium sized rubber bands
- straight sticks
- compasses
- colored pencils

resources

For this lesson, you can read:

"Me on the Map," by Joan Sweeney
"Follow That Map!": A First Book of Mapping Skills," by Scot Ritchie

learning activity

Begin the lesson (45 minutes):

- 1. Introduction:** Facilitator will show an example of a complete grid map. Ask students what features they notice as well as what they think these features communicate. Facilitator can show students how to orient the map for use as well as how to use a compass to create an accurate directional compass "rose".
- 2. Coordinate Grids:** Using a blank coordinate grid as a visual example, facilitator asks the group to name some of the basic features they have already observed in the garden that could be included in their personal garden grid.
- 3. Ask what they notice about the grid system, pointing out:**
 - letter and number coordinates
 - the point of origin
 - the mathematical process for reading x axis, then y axis
- 4. Make a Key & Compass Rose:** Show a sample of small images that stand for larger features such as a meadow, a water source, a path, a raised bed, a plot, a wall. Brainstorm for other features that might be included in the key. (*See next page for samples*).
- 5. Make a Map:** Using 2 – 3 pieces of graph paper and a supporting cardstock back, punch two holes using the hole puncher about one inch in from the sides of the paper. Thread a rubber band through the holes and loop around the stick ends to secure.

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learning activity (continued)

6. Create a coordinate grid on the graph paper indicating the x and y axis, with corresponding letter and number markers and 0 for the point of intersection.

7. Using a compass to confirm the orientation, draw a compass rose in one corner of your grid.

8. Choose no more than six elements to include in a key of your own design. Use up to six colors within the map. Draw the main features you wish to feature on your map, and use the key to point out items you think are important or particularly interesting.

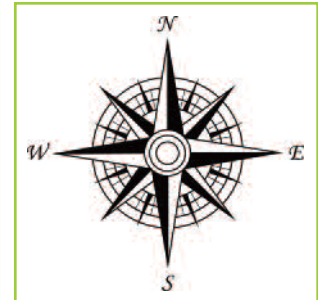
9. To lend a bit of intrigue to the mapping process, pick one feature to include that will describe but not name, indicating the coordinates that point to the location of this element. As you work, select one garden element that you will indicate with coordinates and write the sentence: *"I am located at [x, y]. You might notice me because _____. What am I?"*

10. Practice and Wrap Up: At the conclusion of the mapmaking exercise they will then exchange individual maps with a partner to solve the puzzle of this "mystery" element as they walk with their maps through the garden. Working in pairs, groups will revisit the garden grounds using their partner's grid drawing to track down the mystery element.

11. Group will reconvene to share findings and observations about the challenges and learning opportunities of this activity.



Sample Map Key



Sample Compass Rose

creative activity

For this lesson, you can:

Involve students in future planting decisions based on what they document on their garden map. Challenge students to work in small groups to come up with creative garden bed designs for the upcoming growing season. Guide students in researching themes and plant needs. Ask your art teacher to help students develop artistic skills to showcase their ideas in a class or school wide competition.

extending the lesson

Continue the fun by:

Asking students to continue to refine their map by adding important garden elements. See the Garden Planning Activity Sheet ([hyperlink](#)) for some ideas of what can be included.