Map It Out!
Planning Your Garden Before You Plant

Activity Description
Big Green staff leads Garden Team members and/or students in reading a seasonal garden plan, planning the layout of their garden, and prepping a garden map and other materials to use in the garden to support their Planting Day.

Context of Lesson
- This lesson is for Learning Garden schools and Garden Teams who have demonstrated competency in planting, harvesting, and maintaining the Learning Garden on their own, but would like more support in organizing and planning for a Planting Day.
- This lesson can be delivered to the Garden Team (i.e. a group of adults), a single classroom of students, or multiple classrooms of students who are planning to plant in the Learning Garden.

Lesson Objectives
- Utilize Big Green’s Seasonal Garden Plans to plant your Learning Garden.
- Prepare for your upcoming growing season and Planting Day by:
  - Designing, creating, and labeling a scalable Learning Garden map with seasonally-relevant crops.
  - Making place-markers for the specific crops that will be planted in the garden.
- Review planting methods and techniques for the specific crops that will be planted on the Planting Day.

Staff Time Allocation (2.5 hours total)
- 1 hour to prep materials and plan for student engagement
- 1 hour leading activity
- 30 minutes to clean up after activity

Learning Objectives
- Participants will practice skills related to creating and reading maps
- Participants will understand seed spacing and plant growth needs, mainly that different plants need different amounts of space for proper growing.
- Participants will learn that planting techniques differ based on the crop you are planting (i.e. seed spacers, broadcasting, etc.)
- Additional curricular connections according to grade-level and educator’s input

Assessing Learning
The activity will be successful when the deliverables (i.e. garden map and place markers) have been created and school plants according to their plan.

Related Standards
This lesson is geared toward students in 3rd grade and above. Classroom teachers can edit this section of the lesson plan as they see fit.

Materials Needed

- Seasonal Garden Plan, multiple copies depending on number of adult/student groups - 
  [Big Green Chicago Regional Garden Resources] - provided by Big Green Garden Educator
- School Learning Garden Education Map, multiple copies depending on number of adult/student groups - provided by Big Green Garden Educator
- [Enlarged Garden Bed Templates], multiple copies depending on Garden Education Map layout and number of adult/student groups - provided by Big Green Garden Educator
- Markers - provided by school
- Scissors - provided by school
- Seed Bucket (optional) - either brought by Big Green staff or provided by school
- Butcher Paper (approx. 30”x40”) - provided by school
- Glue Sticks - provided by school
- Laminator (optional) - provided by school

Procedure - This activity can take place in the Learning Garden or in the traditional classroom.

2-3 weeks before delivering this activity at a school, coordinate with the school’s Garden Team about Planting Day date(s) and who will be involved in that Planting Day. Are adults or students participating in this activity? Multiple classrooms? If facilitating this activity with a group of students, decide with the classroom teacher if students will be working independently or in groups to create their garden maps, as this will inform how many of each material you need to prep.

Day-of Procedure:

1. Big Green Intro:
   a. Welcome participants into the Learning Garden/classroom and introduce yourself and Big Green.

2. Intro to activity
   a. Today we will be talking about *insert current season* planting and using a seasonal garden plan to create a big Learning Garden map labeled all the crops you will be planting in your Learning Garden on your Planting Day. You'll be able to bring this map out with you when you plant, so you know what seeds and plants to put in each garden bed. We are also going to talk about the different planting methods used for each crop.
      i. Ask group to define the word “crop” - a cultivated plant that is grown as food, especially grains, fruits, or vegetables.

3. Intro to planting and seasonal garden plan
   a. Who has ever planted in the garden before? *Hold up copy of seasonal garden plan.* Have you ever seen or heard of a seasonal garden plan? Ask the group what information a seasonal garden plan might give you. A seasonal garden plan tells you which crops will be best to grow this season, the dates you should plant them, and approximately how long you will have to wait before you can harvest and eat the crops you planted. Seasonal garden plans also include relevant
information like frost dates, day length, and average temperature, rainfall, and snowfall throughout the growing season. One growing season encompasses multiple months. In Chicago, the fall growing season occurs between August and November. This seasonal garden plan also suggests specific planting methods for each crop.

b. The seasonal garden plan we are using today also includes a scaled down map of a Learning Garden, similar to the one at "insert school name". Scaling something up or down means that you take an object "reference any nearby object" and make a picture or a model of it that is either larger or smaller. Take Ant Man and Godzilla, for example. Ant Man is an example of scaling down. When Ant Man fights crimes, he shrinks himself down from his original size. If you compared shrunken Ant Man to his normal size, you would see that he still had all of his same body parts, they are just smaller. Ant Man can also make himself larger than a normal-sized person, while keeping the same body proportions. Godzilla is an enlarged, or scaled up, version of a lizard, with all the same parts of a lizard, just bigger. Today, we are going to create a scaled down version of the Learning Garden by taking shrunken images of garden beds and creating an identical copy of the Learning Garden on a smaller piece of paper. This will allow us to see the whole garden at once and to easily write out where we will plant each of our crops. Map makers do this all the time!

4. Review School Garden Education Map and Make Your Own Map
   a. Here is a scaled-down map of your Learning Garden. It shows where each garden bed is in relation to the others. We will use this map to create our own maps of the garden.
   b. Show an example of a garden map layout made up of A, B, and C bed templates pasted on butcher paper in a Learning Garden configuration. Our plants are planted in different garden “beds”. They are different shapes and sizes. At Big Green, we refer to these different sizes as “A”, “B”, and “C” *point to the different sized beds on the demonstration map*. Explain to students that they will get their own copies of the garden bed templates and a sheet of large paper. Instruct them to cut out the templates and place them on their larger sheet of paper, modeling the configuration of the Education Map. Once they have the correct configuration, they can glue the template onto the piece of paper.
   c. If seedlings are being planted per the Seasonal Garden Plan, instruct a group of students or an adult to create plant place-markers for use on the Planting Day. These markers are 5 inch circles with the name of the seedling labeled on them (lamination is encouraged for continued use). These plant place markers will be placed in the garden bed exactly where a seedling will be planted, so there is no guessing involved! See image below.
d. Tell participants that we will use the maps we just made to write out the crops to be planted in each bed.

5. Big Green Seasonal Garden Plan
   a. Review the seasonal garden plan with students. Discuss why we are planting certain crops this season as opposed to other seasons (some plants can withstand colder temperatures, others need lots of heat, some are more drought-tolerant, fast-growing, etc.). If relevant, talk about the spacing needs of seeds vs. seedlings. Review different methods for planting (broadcasting, seed strings, trowels) and which crops require which planting method.
   b. If applicable, write the list of crops out and give participants the option to exclude any they don’t want to plant this season. Example: If you are working with a Garden Team that specifically tells you they don’t like or want to plant radishes in their garden, allow them to choose to leave radishes out of their garden plan.

6. Map It!
   a. Using the Learning Garden image on the Seasonal Garden Plan document, walk participants through labeling the garden maps with specific crops. Include the method that will be used to plant those crops next to the crop name.
   b. If students get done early with part 6a, instruct them to draw images of the crops in the garden beds, spaced out according to their planting method as identified on the seasonal garden plan (i.e. broadcasted peas=green dots, radishes planted using planting strings=line of red dots or little drawings of radishes spaced out in a line, etc.)

7. Instruct activity participants to take this map and any corresponding plant markers out with them when they go to plant in the garden on their Planting Day.

8. Provide 1-pager on planting techniques with visuals from the garden for reference.

Differentiation
Consider alternate ways to divide your garden into sections or a large group of participants into smaller groups to make your garden maps:
- Divide students into 3 or 4 groups, depending on how many systems the Learning Garden at that school has. Give each group of students one system to create and label.
- Using the same method above, divide the garden into multiple sections and invite classrooms to plant those different sections of the garden to increase the number of classrooms/students who are involved in planting.
Lesson extension
- If you have access to a seasonal garden plan from previous years, use it as a way to introduce crop rotation by having students compare the two plans and where certain crops have been planted in the garden in the past. Discuss the benefits of crop rotation.
- You can have students complete their garden map by creating a key similar to the Big Green Seasonal Garden Plan map and key below: