

Daily Lesson Plan (DLP)

Topic. Plot your Plants.		Day :1
Grade: 4-5	Lesson Name: Where will each plant be placed within the beds?	Time :(60 Mins.)

Topic	Where will each plant be placed within the beds?		
Weekly key words	weeds, location, ingredient, soil calculator, optimum spacing, lettuce, etc.		
Seating plan	<input type="checkbox"/> Individual	<input type="checkbox"/> Pairs	Group of 4
Skill development	<input checked="" type="checkbox"/> Reading <input type="checkbox"/> Reflection <input type="checkbox"/> Other (Specify)	<input checked="" type="checkbox"/> Writing <input type="checkbox"/> Illustration	<input checked="" type="checkbox"/> Discussion <input type="checkbox"/> Presentation <input type="checkbox"/> Collaboration <input type="checkbox"/> Observation <input type="checkbox"/> Research

Objectives: ➤ The students will be able to:	➤ Develop knowledge about the techniques to place plants within the garden beds
Teaching Resources:	Multimedia/projector, laptop, YouTube, writing board, notebook, piece of paper, pen/pencil, plants, worksheet, journal
Teaching Learning Strategies	
<p>Introduction: 5 mins. Start the lesson by asking the students to share the ways the plants can be watered. Listen to their responses and give feedback.</p> <p>Methodology: (20 mins.) The teacher will discuss the basics of where to place plants within the beds: Even if you don't have a lot of time for gardening, you can still have a productive vegetable garden, no matter the size. How? Start with a raised bed. It's the shortcut to a plentiful harvest, even in the first year. Here's why: Garden anywhere. Attractive cedar raised beds are an asset to your landscape. Create perimeter gardens, spice up your entryway, grow food in your front yard, screen an eyesore. More food in less space. You can set plants closer together so every square inch is productive. And small-space gardening techniques, such as succession planting and vertical supports, ensure that every square inch of space is used.</p>	

Plant earlier. Excess water drains better and soil warms up faster in spring compared to in-ground beds. Specialized covers and garden fabric help you get started even earlier.

Better soil. A productive vegetable garden depends on good soil. With a raised bed, you start fresh with the ideal soil blend — even if the soil on your site is poor.

Fewer weeds. Because raised beds are densely planted, weeds have little room to grow. And when they *do* find space, it's easy to pull them from the loose, rich soil.

Easier pest control. It's simpler to manage insects and exclude animal pests compared to long garden rows. You can easily cover beds with row fabrics or specialized covers.

Match soil to plants. Fill the beds with soil customized to plants. For example, do you want to grow blue hydrangeas? Mix a soil acidifier into the soil prior to planting.

Less bending to tend. Deep Root Raised beds are 15" high, so you bend less during planting, caring for, and harvesting plants.

Location and Set-up:

For optimum plant health and productivity, most vegetables should receive at least eight hours of full sun each day. The more sun, the better, so it makes sense to locate your garden in the sunniest part of your yard. Avoid low, wet areas where the soil could stay soggy. Because your garden will need to be watered during the growing season, you'll want to have relatively easy access to a hose.

Good soil is the single most important ingredient for a good garden. Raised beds give you an immediate advantage over a regular garden, because when you fill your raised bed, you can fill it with a blend of soil that's superior to the native soil in your yard. Soil that's loose and rich with nutrients and organic matter will allow the roots of your plants to grow freely, and ensure that they have access to the water and nutrients they need to sustain healthy growth.

Before placing your raised beds in their permanent location, be sure to remove grass or perennial weeds from the area. Use a garden fork or shovel to loosen the native soil to a depth of 6-10". This will improve drainage and moisture retention in the raised beds. It also means that even with a 5"-high raised bed, your plants will think they're growing in a bed that's 12-18" deep — plenty of room for carrots, potatoes, full-size tomato plants and most any other vegetable you'd ever want to grow.

If you'll be filling more than one raised bed, you might want to buy your soil in bulk — by the cubic foot or cubic yard.

Use the [Soil Calculator](#) to figure out the total amount of soil you'll need for each bed. For most situations, we recommend these proportions:

- 60% topsoil
- 30% compost
- 10% Potting soil (a soilless growing mix that contains peat moss, perlite and/or vermiculite)

Keep in mind that proportions are approximate because soil volume varies from source to source. For instance, if the calculator specifies .444 cubic yards of soil for your bed, go ahead and buy a half yard.

If you do not have access to quality topsoil, an acceptable substitute would be a 50-50 blend of soilless growing medium (often called "potting soil") and compost. If you want to add peat moss to the bed, it should not be more than 20 percent of the total mix.

Peat moss is naturally acidic and is not a good medium for growing vegetables.

What to Plant

Fill your garden with the types of vegetables *you* like to eat. If you're big on salads, plant head lettuce, a lettuce cutting mix, cherry tomatoes, cucumbers and carrots. If you love cooking, plant onions and peppers, leeks, potatoes and herbs. Try to include at least one vegetable that's new to you. Discovery is half the fun.

Gardening in a raised bed is all about maximizing productivity. The challenge is to grow as much food as possible while resisting the temptation to squeeze in too many plants. Overcrowded plants never reach their full potential because they're stressed by poor air circulation and competition for water, nutrients and root space.

Optimum spacing will vary somewhat, depending on specific plant varieties as well as on your growing conditions. A bush watermelon, such as Sugar Baby, has 3 ft. to 4 ft. vines, while the vines of a full-size watermelon, such as Ruby, can be 15 feet long. Likewise, in Texas, tomato plants often get to be over 7 feet tall, yet in Vermont they usually top out at 4 feet. With experience, you'll gradually get a sense for just how much space each type of plant requires.

It's also important consider how each plant's growth habit (bushy, climbing, trailing) will affect its neighbors in same the bed. Planting lettuce next to carrots is fine; planting lettuce next to a sprawling cucumber plant may be a problem. Stakes, ladders and cages will help keep unruly plants from competing with their neighbors. They will also keep the garden neater and more manageable.

Though most of the vegetables you'll want to grow *could* be started directly in the garden from seed, in many cases it's best to start out with a plant. Starting with a plant usually shortens the time to harvest by a month or more. In cold regions, where the growing season may be less than 100 days, a tomato or pepper plant that's started in the garden from seed will not have time to mature before frost. When you're putting in just one or two plants of a particular type of vegetable (such as broccoli or tomatoes), it sometimes makes more sense to purchase a couple plants rather than invest in an entire packet of seeds.

Vegetables that can be sown directly into the garden from seed include root crops, such as carrots and beets, beans, peas, corn, cucumbers, squash and salad greens. In some cases, these crops are direct-sown because they do not transplant well and it's best to sow the seeds right where they're going to grow. In the case of salad greens, which germinate well and grow quickly, it is simply more economical to purchase a packet of seeds than to purchase multiple six-packs of lettuce seedlings.

Potatoes can be started from seed but almost nobody does so. It's much faster and easier to grow a new potato plant from a tuber rather than from a seed. Onions can be put into the garden as seeds, but more often they go in as plants or as "sets", which are simply tiny mature onions from the prior growing season.

Garlic and shallots are usually planted from sets as well. Leeks go into the garden as young plants. Some herbs should be put in as plants, some (cilantro and dill) should be seeded right where they are to grow.

Activity: (30 mins.) (Group Work)

Make groups of 5-6 students and assign them to search which plants should be planted from seeds and which one from small plants or tuber. Ask them to note down their findings in their journals. Make sure to provide laptops or PCs with good internet.

Note: make sure to identify your growing region first.

Wrap up (5mins.): Wind up the lesson by asking the students randomly to share their findings.

Home Assessment:

The students will do the worksheet as homework.

Worksheet

Lesson Evaluation:

- Teacher was able to accomplish all aspects of the lesson well ☐
- Teacher was not able to do warm up activity ☐,
- develop lesson plan well ☐,
- do the learning activity ☐,
- do wrap up ☐,
- accomplish lesson objective ☐,
- manage time well ☐,
- manage class well ☐

Worksheet Day

Name: _____

Topic: Plot the Plants

Class: _____

Subject: Science

➤ Write down any five small gardening techniques discussed in the lesson.
