

Our Food Garden Plan

UNIT 4
LESSON 4A

CONTENT OBJECTIVES	Identify and select locally grown fruits and vegetables to plant, grow, harvest and eat. Use a variety of mathematic and science concepts and skills to create local garden plans and calendars.
LIFE SKILL OBJECTIVES	Critical thinking, problem solving, decision making, healthy living, communication (listening, asking and responding to questions), citizenship (teamwork), leadership (sharing an idea to improve something)
INDICATORS EVALUATIONS	Students will develop a productive garden plan that will demonstrate how much healthy food can be grown in a limited amount of space.
SUBJECT STANDARDS CORE CONCEPTS AND SKILLS	<p>21st Century Skills: Employability skills, Health literacy</p> <p>Science: Science as inquiry, Earth and space, Life science</p> <p>Mathematics: Operations and algebraic thinking, Numbers and operations, Measurement and data, Geometry, Mathematical practices</p> <p>Social Studies: Economics, Geography</p> <p>Literacy: Reading, Speaking, Listening, Viewing</p>
LEARNER TYPES	Linguistic-words, Logical-mathematical, Spatial-visual, Bodily-kinesthetic, Interpersonal, Intrapersonal, Natural
MATERIALS	<p><i>See TEACHER'S NOTES following this list to find help with these materials and to deliver this lesson. Working with local partners grows community capacity and sustainability.</i></p> <p>Where We Live Fruits and Vegetables Sampler <i>(Please see the TEACHER'S NOTES following this Materials list.)</i></p> <p>White paper <i>(two sheets per student)</i></p> <p>Markers or crayons</p> <p>Masking tape</p> <p>White, black, or marker board or large sheet of paper and markers or chalk</p> <p>Small paper plates <i>(one per student)</i></p> <p>Napkins <i>(one per student)</i></p> <p>Food handling gloves</p> <p>2 to 4 long tape measures</p> <p>Our Food Garden Plan <i>(On one sheet of paper, draw the outlines of the container, raised bed, or tilled gardens that you will be planting. This will be your garden plan or map worksheet. Make at least two copies. See the Reflect section.)</i></p> <p><i>Materials continued on the next page.</i></p>



MATERIALS
CONTINUED

Vegetable squares (*copy and cut out one square per person*)
3 sheets of plain paper (*write Small, Medium, and Large on them*)
Plant Sizes chart (*found at the end of this lesson*)
Rulers (*one per student, or share*)
Scissors (*one per student, or share*)
Newspapers (*Enough to cut out several 12 inch squares or larger, see the Reflect section*)
Planting Guide chart (*found at the end of this lesson*)
Monthly calendar (*to count days from planting to harvest*)
Raised Bed Garden Plan (*found at the end of this lesson*)
Tilled Garden Plan (*found at the end of the lesson*)
Family Letter (*found at the end of the lesson*)

TEACHER'S NOTES: Local partners can provide expertise, time, energy, supplies, and/or funding. Potential partners include: School staff, volunteers, and older students (from classrooms, foodservice, maintenance, administration, high school organizations); Extension staff, volunteers, and organizations (such as Master Gardeners, 4-H Club members, nutrition programs such as EFNEP, specialists or agents); local foods producers; gardeners; farmer's market vendors; local foods restaurants; grocery store produce managers; senior centers; local organizations, businesses, and interested and knowledgeable individuals of all ages and cultures. These people can help you use this lesson and apply the activities to where you live and your garden program. They are not a substitute for this lesson.

The Do/Explore section starts with a "Where We Live Fruits and Vegetables Sampler." It should include at least three to five fresh fruits and/or vegetables that students can taste and that could be grown in their gardens. Introduce other options by showing pictures on food packages or from magazines. Make sure you are including cool season crops such as lettuce, spinach, radishes, and onions that can be planted and harvested in the spring before school is out. Also include fall harvest crops such as tomatoes, peppers, potatoes, squash, muskmelon, watermelon, and pumpkin that can be planted in late spring and harvested late in the summer when school resumes. See the TEACHER'S NOTES at the beginning of the Do/Explore section.

INTRODUCTION

ENGAGE

SET THE STAGE

15 TO 20 MINUTES

Raise your hand if you have ever planted a garden.

What did you grow in your garden and why?

Have a few students share their experiences.

Hand out blank pieces of paper and ask the students to use their markers or crayons to draw a picture of one fruit or vegetable they might like to grow and eat. Tell them that they will have five minutes to draw and color their fruit or vegetable.

While they are drawing, use masking tape to create the outside edges of a floor garden in your classroom. The garden should be almost large enough for the students to "plant" their drawings. Also, draw and color your own fruit or vegetable.

Have the students bring their drawings and sit around the floor garden space.

The masking tape marks the outside of what we are going to call "Our Floor Garden." One by one, please stand up and tell us what fruit or vegetable you drew and why you chose it. Then you can plant your picture somewhere in "Our Floor Garden" space. I will start.

Don't be concerned if the fruit really comes from an orchard or vineyard. Plant everything in the garden for now. Once the drawings are in the garden, proceed with the following discussion questions and give the students an opportunity to change where their fruits and vegetables are growing.

Take a good look at our fruit and vegetable garden.

Have you ever seen a real garden that looks like ours?

What makes ours different?

Possible answers include:

- The floor garden is a non-living thing made up of the floor, masking tape and paper; real gardens grow living things.
- One garden doesn't usually have this many kinds of plants and numbers of plants.
- There are too many plants in this garden. The plants are piled on top of each other.
- Some of these plants don't grow here.
- Some fruits grow on trees. Trees usually grow in orchards or in the yard, not in gardens.
- The same fruit or vegetable is scattered around the garden and they usually grow together in a row, section or square, or a patch.

Let's make "Our Floor Garden" look more like a real garden.

1. Pick up the pictures and sort them into groups of similar plants.
2. Identify the fruits that grow on trees and plant them somewhere else in the room.
3. Let's replant the rest of the pictures in groups and see how much space we have in the garden. We will be learning about plant sizes, so don't be concerned if they don't all fit.

Gardeners like to record things about their gardens so they know what to plant, how much, when to plant and so on. Let's start a garden journal about "Our Floor Garden" with a chart.

On the board or a large sheet of paper, make a chart with four columns similar to the illustration on this page.

Ask the students to name and count each of the fruits and vegetables in "Our Floor Garden." Record the information in the "Fruits or Vegetables" and "Quantity" columns. Add the number of different kinds of fruits and vegetables and the quantities and record the total at the bottom of each column. The quantity total should equal the number of students plus you.

Have the students rank the fruits and vegetables from most popular, number 1, to least popular. Write the name of the most popular fruit or vegetable at the bottom.

You might want to take a little survey and have the students raise their hands if they have tried eating each of the fruits and vegetables. Challenge them to try something new from the list.

You may want to make bar graphs with the information on the chart.

We just planned a garden. I would love to actually grow this garden, wouldn't you?

What are some questions we'd have to ask ourselves before we could plant our classroom fruit and vegetable garden?

Examples of questions:

- Can the fruit or vegetable grow where we live?

Our Floor Garden to Our Food Garden
 (Write the date here)

Fruit & Vegetables	Quantity	Ranking	Tallies
Total:	Total:	#1:	

- How much space does each plant take and how much food does each plant produce?
- Is there enough space to grow all the plants?
- When can we plant it and when can we harvest it?

Now you can go harvest your fruit and vegetable pictures out of the garden and take them back to your seats. We will reuse the pictures. (*Pull up the masking tape.*) We are going to take what we learned and plan “Our Food Garden.”

Do

EXPLORE

INVESTIGATE CONCEPTS

10 MINUTES

TEACHER’S NOTES: See the “Where We Live” Fruits and Vegetables Sampler described in the **TEACHER’S NOTES** at the end of the Materials list. Wash and precut samples and store them in bags. Save a whole one to show the students and to demonstrate how to prepare or cut it. Invite a few students to help distribute the samples. You may want them to wear gloves or use tongs to put the samples on one paper plate per student. Students are more likely to try new fruits and vegetables if you add some ranch dressing or a dip on their plates. Additional local fruits and vegetables could be discussed by showing pictures from food packages, cans, models, internet sources, magazines, or food advertisements. Explain that most of the frozen and canned fruits and vegetables they eat are not grown locally. Often times fresh fruits and vegetables come from hundreds or thousands of miles away.

Have the student volunteers wash their hands first and then have the rest of the students wash their hands. Clean the demonstration table and your hands. Then set up the table with the fruits and vegetables, cutting boards, knives, gloves, paper towels, paper plates, and napkins. Have the student volunteers put the paper plates out on the table so that they can place one sample of each fruit or vegetable on each plate. When the other students are done washing their hands, have them pick up their sample plates and take them back to their seats. Instruct them not to eat anything on their plate until they are told.

We make a lot of our food choices based on how things taste. Fruits and vegetables are healthy food choices. They are called “GLOW” foods because the vitamins and minerals in them make shiny hair, glowing skin, and healthy or glowing bodies.

We are going to taste fruits and vegetables that can grow near where we live and that we might be able to grow in our garden. I grew/bought these at _____: I kept most of these in the refrigerator to keep them fresh until we needed them. Then I washed them and cut them into sample sizes. Please don’t eat them until we can talk about each one. Let’s see if you can identify them and we’ll take a closer look at what they look like outside and inside.

Show one whole fruit or vegetable at a time. Have the students tell what it is. Then have them describe the outside, slice it open and have them describe the inside. Have the students find and try that fruit or vegetable from their plate. Have them describe the taste, texture, and smell. Then use the same procedure to move on to the next fruit or vegetable. If you want to introduce more locally-grown fruits and vegetables, show pictures of them.

Have the students find the fruits and vegetables they just ate or learned about in the first column of the “Our Floor Garden” chart. Circle the fruits or vegetables as the students identify them and add new ones to the bottom of the list.

Ask the student to pick up their plates and napkins and form a line to the garbage can or bag near the “Our Floor Garden” chart. After the students throw away their trash, have them make one tally mark next to two circled or new fruits or vegetables that they would like to plant in their garden. Then have them go back to their seats. Stand next to the chart to help them find their fruit or vegetable and make a tally mark.

As a class, count up the number of tallies for each fruit or vegetable and record the total next to their tally marks. Put a star next to the four to six most popular fruits or vegetables. Talk about the similarities and differences between the tallies in the fourth column and the quantities in the second column and the rankings.

We are getting closer to deciding what we will plant in our garden. What do we need to know about these plants before we include them in our garden?

Examples of questions:

- How many fruits or vegetables does one plant grow?
- How many plants do we need to grow and is there enough space in our garden?
- When will we get to eat the fruits and vegetables that we plant?
- What will we need to do to grow these fruits and vegetables?

There are many decisions to make when you are planning a garden. In order to find the answers to our questions, we will need to gather more information.

TEACHER’S NOTES: *This section relates to decisions regarding space in the garden. If you haven’t had a lot of gardening experience, you may want to find expert help from the list of partners in the TEACHER’S NOTES following the Materials list. Here are some things you will need to prepare ahead of time.*

1. *Start a map or the outline of your containers, raised beds, or tilled garden spaces. You will be writing measurements around the outside of each space and creating the plan inside each space. Title the map, “Our Food Garden Plan.” Make at least two copies.*
2. *Make a list of the crops that you will probably end up planting from the students choices and be sure to include spring and fall harvest crops. We suggest starting a new garden with just vegetable crops, unless you want to try melons. Fruits either grow on trees or take a few years to produce a good crop. You can add those fruits another year.*
3. *Copy the vegetables and fruits picture squares at the end of this lesson. Cut apart each square. Make sure everyone will get at least one picture. Make sure that the vegetables or fruits you are planting are included in the picture. If not use, the blank square to draw your own picture and fill in the information. Write “Small”, “Medium”, “Large” on separate pieces of paper to use as headers for three columns.*
4. *If possible, go outside or to a place where you can look at the container, raised bed, or tilled gardens you will be planting. You may want to show pictures on the Internet of the container, raised bed, or tilled garden. If it is not possible to work with the actual garden spaces, use masking tape on the floor to recreate the sizes and shapes of the gardens you intend to use.*
5. *Continue to use “Our Floor Garden to Our Food Garden” chart.*

REFLECT

EXPLAIN

DEVELOP CONCEPTS

30 MINUTES, ON ANOTHER DAY

ACTION STEPS to explore the relationship between the space in the garden and the food plants you want to grow

1. Work together to find out how much space you will have to grow food in your actual garden.

Display the “Our Food Garden Plan” where everyone can see it.

I have started “Our Food Garden Plan.” It is a work sheet we will complete together. We will use it to plan the garden(s) that we will grow. This will help us to grow the kinds and amounts of fruits and vegetables that we want to eat.

What is/are the basic shape(s) of our garden spaces?

You may have different shapes depending on the use of containers. Most raised bed and tilled food gardens are rectangle, but they don’t have to be.

We will be planting gardens in (container/raised bed/or tilled) gardens. (Explain the differences by showing them the actual garden spaces or showing pictures of each kind of garden space.)

Go outside or somewhere that you can view and measure the garden(s) you will be planting. If that is not possible, use your floor to work with the students and tape out the sizes and shapes of your containers, raised beds or tilled gardens.

Have the students count off by four vegetables that you are planning to plant in your garden, for example, radishes, lettuce, sweet potatoes and pumpkins. Then have all the radish students stand on one side of the garden space, the lettuce students stand on another side and so on.

Show them the tape measure and talk about how it works. Give a tape measure to a student at one corner of the garden. Have them hold the end of the tape to the corner of the garden and pass it down his or her side of the garden until it reaches the other end. Show the last person how to lock the tape measure. Have everyone on the same side lay the tape measure along the edge of the garden to make sure it is flat. Have them read the tape measure and record the measurement on the outside edges of the garden on “Our Food Garden Plan.” If you have four tape measures, it would be good to leave them around the edges of the garden to show everyone how that looks. You may want to introduce the concepts of perimeter and area.

Now that we know how much garden space we have to work with, let’s see how many plants we can grow in “Our Food Garden.”

2. Work together to find out how big the plants will grow.

Write “Small,” “Medium,” and “Large” on three pieces of paper and place them like column headers on top of a large table or on the floor.

Distribute the vegetable and fruit pictures, at least one per student.

Display the “Plant Sizes” chart where everyone can see it.

Invite the students to bring their squares with vegetable or fruit pictures to come and sit or stand around the small, medium, and large column headers. Have someone read

the title of the “Plant Sizes” chart and another student read the column headers. Talk about the measurements that determine whether a plant is small, medium, or large. Show what 3 inches, 6 inches, and 12 inches looks like on a ruler. Explain that some plants grow even bigger than that.

Why do we need to know how big our vegetable and fruit plants are going to grow?

It helps us to find out what plants and how many of them can fit into our container, raised bed, or traditional tilled (*in the ground*) gardens. It also tells us how far apart to plant our seeds or young plants.

You each have a small square with a picture on it.

Do you think the vegetable or fruit on your square comes from a small, medium or large plant?

Let’s find out.

We have “Small,” “Medium,” and “Large” column headers on the table/floor just like you see on the “Plant Sizes” chart. One person at a time, please tell us what vegetable or fruit you have and if you have ever seen it or eaten it before. Then guess if your vegetable or fruit comes from a small, medium, or large plant and put your picture square in the right column. We will use the chart to see if you guessed correctly. (*Everyone can help each other through this activity. Many students may not have heard of their vegetable or fruit.*)

Let’s use “Our Floor Garden to Our Food Garden” chart and compare our pictures to the circled fruits and vegetables on the chart. Remove the vegetable and fruit squares that we didn’t eat or learn about. Those vegetables and fruits may not grow well here and we will most likely not be planting them in our garden.

Look at the remaining vegetables and fruits in our columns. We could grow these plants here, but we want to take a closer look at just the plants we want to plant in our garden. Look at the fruits and vegetables on the chart that have stars in front of them. Remove all the other vegetable and fruit pictures until all that is left in the “Small,” “Medium,” and “Large” columns are the plants that we want to grow in our garden.

Focus on the characteristics of the plants that remain in the columns. Medium sized plants start to look like small shrubs with branches. Large sized plants may grow tall or like vines or tall plants that spread out. Discuss how many fruits or vegetables come from each of the plants and how many plants you would need to grow to produce a sample for everyone to eat. For example, you may want to grow one radish per person, one lettuce plant for two or three people, one cherry tomato plant, two hills of sweet potatoes and so on. Record the number of plants you think you need in the margin next to the fruit or vegetable on the “Our Floor Garden to Our Food Garden” chart. Have the students return to their seats.

3. Work together to see if the plants fit into our garden.

Let’s see how our plant choices from “Our Food Garden” chart will fit in the gardens we are going to plant. Take out your rulers, markers or crayons, scissors, and the fruit or vegetable pictures you drew. (*Have your own supplies, plus newspapers.*)

What large plants do we want to plant in our garden and how many did we think we needed?

(You should have at least one of these plants because they will provide your students with something to harvest in the fall when they return to school.)

Distribute individual pages of the newspaper and have students work together to measure and cut 12 inch to 15 inch squares that will represent the large plants in the garden. Have them write the name of the vegetable or fruit and draw a picture of it, on top of the square.

Have the students take the large squares and place them on your actual container, raised bed, or tilled garden spaces or on the floor gardens taped on the floor. You may need to hold the papers down with a rock or stake them down with a small stick.

Repeat this process with the medium and small plants by making 6 to 10 inch squares and 3 or 4 inch squares. Use the paper from their fruit and vegetable pictures especially for the small plants.

Have the students work together to see if they can fit all the crops into the actual container, raised bed, or tilled garden spaces or the taped spaces on the floor. If you are outside, use coins, erasers, or rocks to hold the papers in place. They will most likely find out that they don't have enough space to plant everything. If that is the case, have them pile their extra plant squares next to the garden spaces. While they are looking at the garden, proceed with the following discussion.

What were some of the strategies you used to fit all the plants into our garden(s)?

Possible answers include: We rearranged the plants, took out some plants, rearranged again, tried to make a walkway, got into an argument, etc.

There is one more thing we need to explore about plants in the garden that may help us grow everything we want to grow. Let's see if a planting guide will help us grow more things in our garden.

4. Explore the possibilities of using a planting guide to grow more crops in your garden space.

Display the "Planting Guide" chart where everyone can see it. Have a calendar handy to count the days from planting to eating.

This is a "Planting Guide" chart. It shows how many days it takes from the time you plant a seed or young plant to the day you can harvest and eat it. It is arranged in small, medium and large crops so we can easily use it to think about how we might be able to rearrange the plants in our garden or grow them at different times.

Go through the chart and highlight or circle your garden choices and the days until the vegetable or fruit is most likely to be ready to eat.

Most of the small vegetables can be planted inside in late winter or outside in a raised bed when the ground is workable. Refer to the chart and a calendar to show students when you may be able to plant the small crops and then count the number of days until harvest. Mark the beginning and end dates on the calendar.

Is it possible that we could plant the small plants or crops and be able to eat them before school is out in the summer?

Yes

If we harvested the small plants, what could we make with them?

Possible answers include: Veggies and dip, salads, wraps, sandwiches, egg rolls

Some of the medium and large plants, such as tomatoes, broccoli, eggplant and peppers can be started from seed in containers in the classroom and they can be planted outside once the chance of frost has passed. Use a calendar and show the students when you may be able to plant the medium and large crops. Then have them use the chart and calendar to count the number of days it will take for the fruit or vegetable to grow and be ready to eat.

Is it possible that we could plant the medium and large plants before the end of the school year and come back at the beginning of the next school year to harvest and eat them?

Yes

What can we do with this information to help us plant and harvest all the fruits and vegetables we want to plant?

We could plant the small plants and harvest them. That would leave a space in the garden to plant the medium and large plants. If we started some of the medium and large plants in our classrooms, we could give them a head start and move them outside when there is space.

5. ** Plan the garden to make everything work.**

An efficient use of garden space that incorporates ease of planting in container and raised bed gardens is Mel Bartholemew's Square Foot Gardening method. You can combine the square foot method and try row gardening in a tilled garden (traditional, in the ground). The students will be using square foot templates to plant the garden. Therefore, when the students rearrange their plant squares, have them try to work in square plots instead of rows.

One more thing we can do to get the most food from our garden is to use a planting method called square foot gardening. This time when we arrange our small and medium plants in the garden, we can group them in squares of plots instead of rows.

Let's go back to the garden and put the puzzle together using our plant squares as the puzzle pieces.

Use the raised bed and tilled garden plans found at the end of this lesson and the container garden illustrations on this page as examples for the students. Have the students compare the illustrations with their garden plans made by squares in the garden. Remind the students that they can use double cropping or use the space to grow spring harvest crops and then replant the garden with late summer and fall harvest crops.

Other adults or high school volunteers and mentors can work with the students to rearrange the plant squares into a spring harvest garden and then a late summer and fall harvest garden. You may need to add or subtract plant squares.

IMPORTANT: Draw the spring harvest and late summer or fall harvest garden plans on the “Our Food Garden Plan” worksheets. Write the name of the plants and the number of plants in each of the sections. Record any other notes on the Plan.

We now have “Our Food Garden Plan” to help us move closer to planting.

APPLY

EXPAND

ELABORATE IN A NEW WAY

20 MINUTES

PLUS HOME ASSIGNMENT

What can we do to have more fruits and vegetables for our school?

Possible answers include:

- Work with local food producers, gardeners and farmers to share what they grow.
- Work with the community and neighborhood garden site to grow more food.
- Partner with high school students and teachers in horticulture, FFA, or 4-H.
- Expand your gardens to nearby empty lots, public spaces, senior centers, health and wellness centers, after-school program sites, etc.
- Explore the possibilities of adding different types of containers to grow food such as kid’s swimming pools to grow melons or pumpkins, or using wagons or wheelbarrows or decorated oil drums on wheels.

You may choose to actually expand your garden or access to healthy foods in one or more of the ways mentioned above. If so, have the students use what they have learned to plan another garden. If you are new to gardening, starting small is a good idea.

E MY HOME FOOD GARDEN PLAN

Distribute plain sheets of paper and have students take out their markers.

At the top of your paper write “My Home Food Garden Plan” and put your name below the title. This is an opportunity for you to draw a food garden plan that you can share and do at home. If you don’t have a yard, you can plant some plants in different containers or in a windowsill garden. Or, you can have a space in a community or neighborhood garden. Think of the type of garden spaces you can create at home and the plants that you might be able to help your family grow. Use “Our Food Garden Plan” and the charts as a guide. Start small to keep things manageable, you won’t have all your classmates to help you. If you already have a garden, draw a section of it where you might be able to make your own plans.

Ask some of the students to share their plans with the rest of the class. Have them stand where everyone can see their plan and speak loudly so everyone can hear.

Collect their garden plans and see what they learned. Give them suggestions so that they can actually use the plan or part of the plan at their homes.

Make copies of the family letter found at the end of this lesson on the back of the students’ “Home Food Garden Plans.” Have the students write the date at the top and sign their own names after “Thanks!” Send the students home with their letters and their garden plans. Have them describe their garden plans to their families. A few days later, give them an opportunity to share their families’ reactions to their plans.

Dear Family,

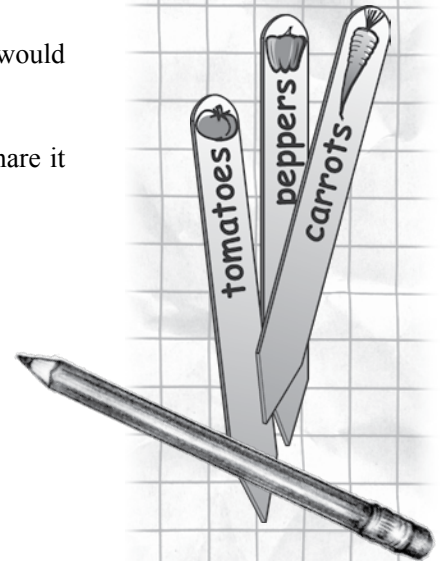
Our class is planting a garden. We are excited to grow food to eat at school. Did you know that I tried some new fruits and vegetables today?

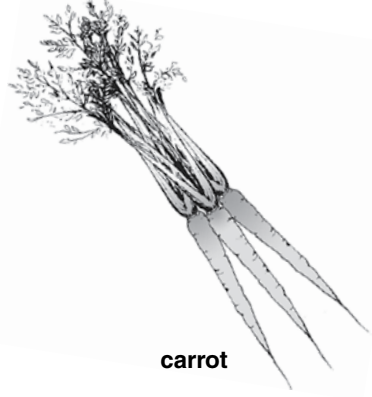
We made up plans for home food gardens. Do you think my garden plan would work in our yard or in some containers? Please help me make changes.

My teacher would like me to bring my plan back to school so I can share it with the class.

Thanks!

MY
GARDEN
PLAN





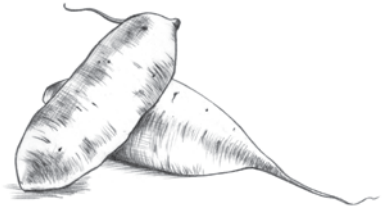
carrot



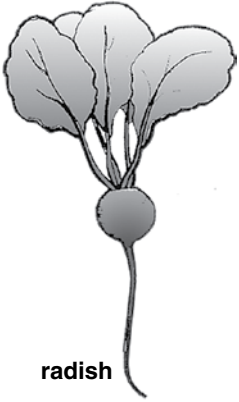
potato



onion



sweet potato



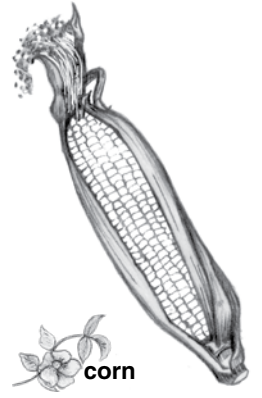
radish



green beans



pea pod



corn



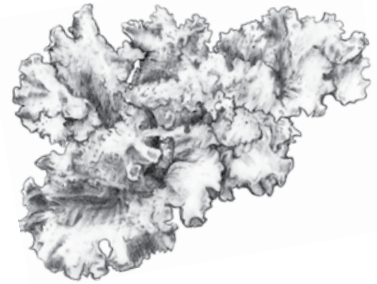
tomato



pepper



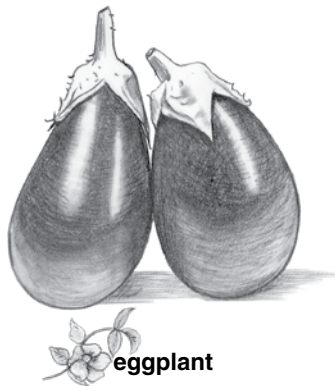
okra



leaf lettuce



cabbage



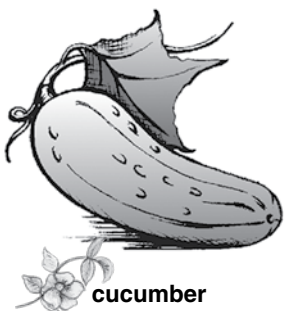
eggplant



spinach



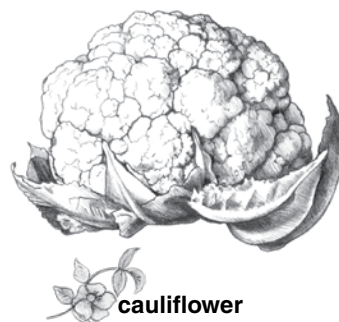
pumpkin



cucumber



broccoli



cauliflower

PLANT SIZES

How big will plants grow?		
SMALL 3 to 5 inches	MEDIUM 6 to 24 inches	LARGE 24 inches or more tall or long
VEGETABLES	VEGETABLES	VEGETABLES
Beets	Asparagus	Brussel sprouts
Carrots	Beans	Cucumbers
Kohlrabi	Broccoli	Popcorn
Onions	Cabbage	Potatoes
Radishes	Cauliflower	Pumpkins
Garlic	Collards	Summer squash
Kale	Eggplant	Sweet corn
Lettuce	Okra	Sweet potatoes
Mustard greens	Peas	Tomatoes
Spinach	Peppers	Tomatillos
		Winter squash
		Zucchini
FRUIT	FRUIT	FRUIT
	Strawberries	Blueberries
		Grapes
		Muskmelon (cataloupe)
		Watermelon



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PLANTING GUIDE


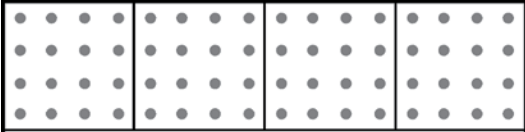

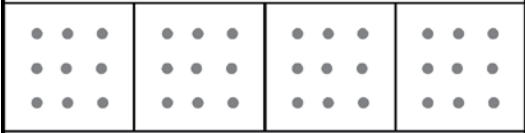


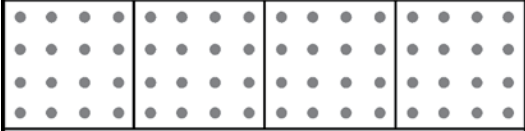


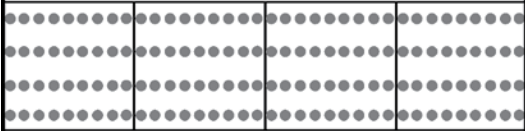


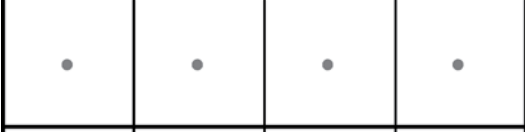


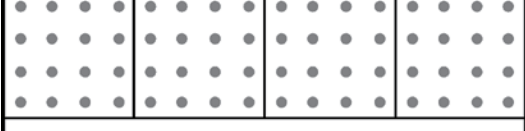


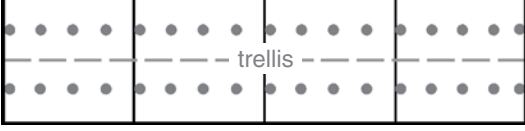
VEGETABLES OR FRUIT	DAYS UNTIL HARVEST	PLANTING DATE	HARVESTING DATE
SMALL PLANTS			
Beets	60 - 80		
Carrots	60 - 80		
Kohlrabi	50 - 60		
Onions	90		
Radishes	30 - 35		
Kale	60 - 70		
Lettuce	30 - 40		
Mustard Greens	40 - 60		
Spinach	35 - 40		
MEDIUM PLANTS			
Asparagus	3 yrs after first planting		
Beans	50 - 60		
Broccoli	60 - 80		
Cabbage	60 - 80		
Cauliflower	60 - 80		
Collards	50 - 55		
Eggplant	75 - 80		
Okra	70 - 90		
Peas	50 - 75		
Peppers	70 - 75		
Strawberries	1 yr after first planting		
LARGE PLANTS			
Brussel sprouts	90		
Cucumbers	50 - 70		
Potatoes	110		
Pumpkins	90 - 120		
Summer squash	60 - 75		
Sweet corn	65 - 110		
Sweet potatoes	140 - 150		
Tomatoes	70 - 80		
Tomatillos	70 - 80		
Winter squash	90 - 120		
Zucchini	60 - 75		
Muskmelon (cantaloupe)	90 - 120		

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RAISED BED GARDEN PLAN

SQUARE-FOOT METHOD

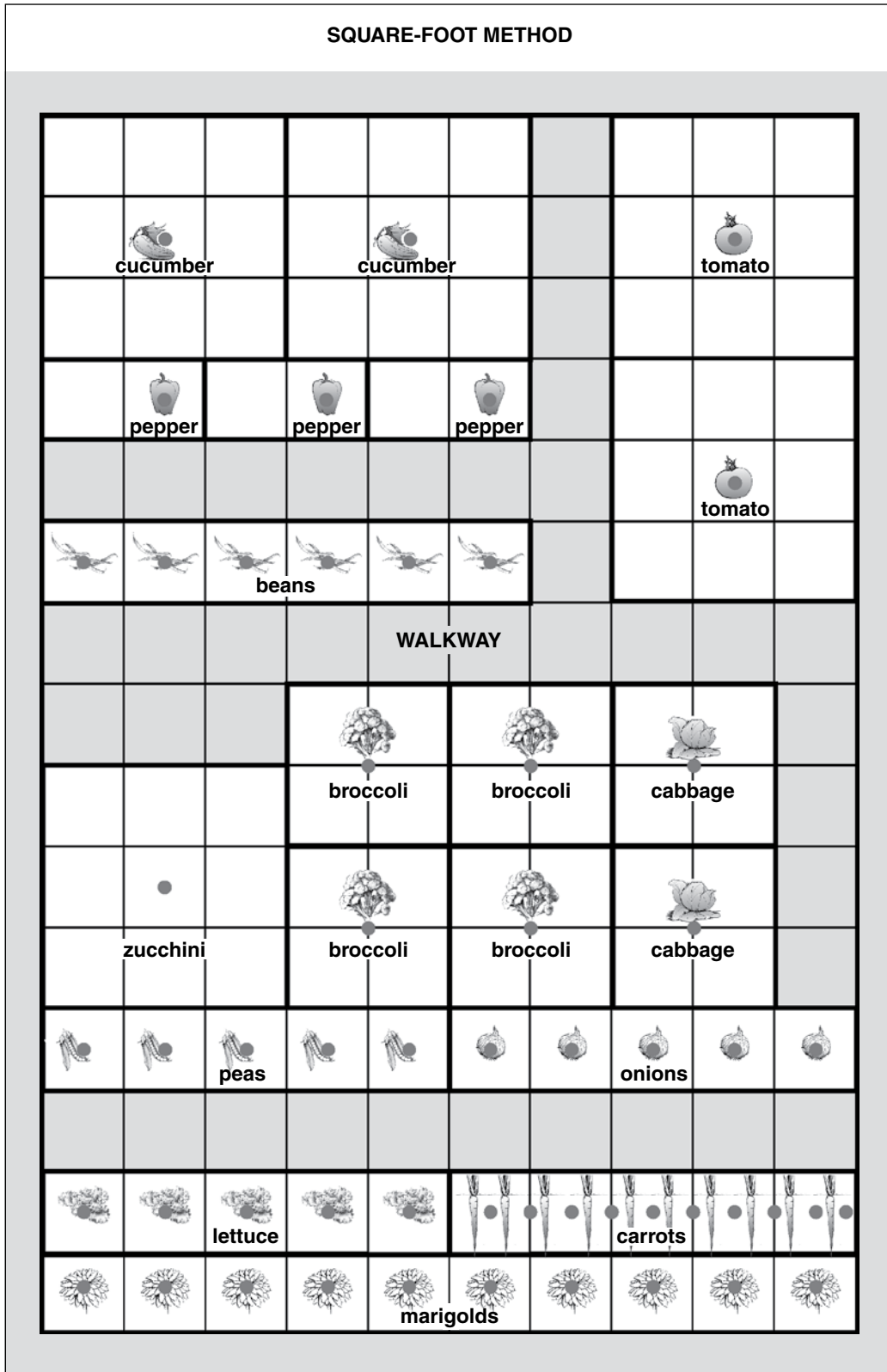
SPRING		FALL	
Plant as soon as soil can be worked.		Plant near the end of May.	
 leaf lettuce			
 onions			 butternut squash
 beets			 potatoes
 radishes			 grape or cherry tomatoes
 broccoli			 peppers
 spinach			 sweet potatoes
 snap peas			

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TILLED GARDEN PLAN

SQUARE-FOOT METHOD



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