



Gardening for Market

Grade Level: 4

Description

In this activity students will work to plan some of your garden crops for a school garden market. You could either do this fictionally, or have them actually sell to parents and teachers.

Follow up Lesson From Crop Harvest Charting.

Time of Year Winter, planning for spring planting.

Background Information

Find a farmers market near you by looking at the Mass Grown map : <http://massnrc.org/farmlocator/map.aspx?Type=Farmers%20Markets>. Take a trip to the market if possible with your students, take notes and get ideas about what you might do to run your own.

Plants for the School Garden. (Spring or Fall harvest)

| Plant | Family | If annual cold or warm season? | Siting Needs | Plant | Harvest | Spacing | Notes | Approx. days to harvest |
|----------------|----------------|--------------------------------|---------------|----------------|--------------------------|-----------|--------------------------------------|-------------------------|
| "Asian Greens" | Brassica | Cold | Part Shade OK | Spring or Fall | Spring or Fall or Winter | 6" | Direct seed, thin after germination. | 25 |
| Baby Lettuce | Asteraceae | Cold | Shade OK | Spring | Spring | 4" | Direct seed, thin after germination. | 28 |
| Basil | | Warm | Full Sun | | | | | |
| Beets | Chenopodiaceae | Cold | Part Shade OK | Spring | Fall | 2" (thin) | Direct seed, thin after germination. | 55 |
| Carrots | Umbelliferae | Cold | Part Shade OK | Spring | Fall | 2" (thin) | Direct seed, thin after germination. | 75 |
| Cabbage | Brassica | Cold | | Spring | Fall | 18" | Starts. | 85 |
| Cillantro | Umbelliferae | Cold | Part Shade OK | Spring or Fall | Fall or Winter | 2" | Direct seed, thin after germination. | 50 |
| Collards | Brassicaceae | Cold | Full Sun | Spring or Fall | Fall or Winter | 16' | Starts. | 55 |

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| Dry Beans | Leguminosae | Warm | Full Sun | Spring | Fall | | Direct seed, thin after germination. | 100 |
| Flour Corn | Grass | Warm | Full Sun | Spring | Fall | 16" | | 100 |
| Garlic (eat green!) | Liliaceae | Cold | Part Shade OK | Fall | Spring | 6" | Harvest green garlic before school gets out! | |
| Kale | Brassicaceae | Cold | Part Shade OK | Spring or Fall | Fall or Winter | 16" | Good for eating well into winter | 55 |
| Marigolds | | Warm | | | | | Trap crop for tomatoes | |
| Onions | Liliaceae | Cold | Part Shade OK | Spring | Fall | 4" | Plant from sets for easier results | 94 |
| Peas | Leguminosae | Cold | Part Shade Ok | Spring | Spring | 3" | Trellis! | 52 |
| Peppers | Solanaceae | Warm | Full Sun | Spring | Fall | 12-18" | starts. | 80 |
| Popcorn | Solanaceae | Warm | Full Sun | | | 12" | Dry down in the classroom in bunches | 100 |
| Potato | Solanaceae | Warm | Full sun | April 15-May 15 | | 8-12" | Hilling if possible, picking potato bugs, mulching | |
| Pumpkins | Cucurbitaceae | Warm | Full Sun | | | 72- 100" | recommend small varieties. | 105 |
| Radish | | Cold | Part Shade Ok | any time! | | 4" | great quick crop | 26 |
| Spinach | Chenopodiaceae | Cold | Part Shade Ok | Spring or Fall | Spring or Fall or Winter | 4" | | 39 |
| Strawberry | | | Full Sun | Spring for second year | | 6" on diagonal | Pinch flowers first year, take off daughters/ thin them, mulch yearly, water 1" week | |
| Sweet Potato | | Warm | Full Sun | Spring | Fall | 12" | Lift shoots to stop them rooting for larger potatoes | |

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| Tomatoes | Solanaceae | Warm | Full Sun | | | 18" | Use open pollinated and save seeds! | 62-80 |
| Wheat | Grass | Cold | Full Sun | Fall | Fall | 4" | Winter wheat can last until September | |
| Winter Squash | Cucurbitaceae | Warm | Full Sun | | | 72- 100" | | 100 |
| Tomatillos | Solanaceae | Warm | Full Sun | Spring | Fall | 12" | | 70 |
| Chard | Chenopodiaceae | Cold | part Shade OK | Spring | Fall | 12" | Good continual harvest | 55 |
| Winter Rye | Grass | Cold | Full Sun | fall | Spring | 4" | Use as a cover crop or grain crop | |
| Sunflower | Asteraceae | Warm | Full Sun | Spring | Fall | 16' | | 80 |

Guiding Question

What does the “days to harvest” number tell us? How can we use this number to plan for our garden market?

Big Idea

Many farmers plan backwards from market dates to figure out when to plant their crops.

Learning Objectives

To understand more about what farmers do to plan for farmers markets. To use subtraction, dates, and charting to make a planting schedule.

Materials

- * Seed catalogues, seed packets or the chart at the end of this lesson to use for crop planning.
- * Small pieces of paper for each student to write down words for the farm name.
- * Poster board for crop planning.
- * Printed out worksheets at the end of this lesson, one for each student, if you like.

Preparation

Pick a date for a school garden market. This could be at the end of school, before or after another event taking place at your school etc. This market will most easily work in September, when kids get back to school. It could be before summer vacation, but if so you should push it as far near the end of school as possible so that you can get a harvest from short season crops planted for it. Prepare a list of crops you would like to grow for this market for students to choose from. See the list in “background information” above.

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Introducing the Lesson

Activate prior knowledge: Review the crop harvest charting activity and discuss how they determined the “days to harvest” for different crops.

Engage Student Interest:

Explain that we are going to work as a vegetable farm. Tell them they we will think of four (or more) things they want to sell (out of the seed catalogues so the crops are regionally possible) and a name for our class farm. Explain that they will be able to sell the vegetables they grow to parents and teachers in a garden market. Tell them the date you have picked for this market to take place.

Procedure

(Total time approximately 1hr 30 mins)

1. Introduce the lesson by talking about farmers markets in the state. Have any of them been to a farmers market? If so, what do they remember? Explain that they are going to learn some of what farms have to do to plan for a farmers market.
2. First, pick a class farm name. Good farm names often have an adjective followed by a noun, then “farm” or “gardens.” E.g. Sunny Acres Farm, Red Radish Farm or Big Carrot Gardens. You could hand out pieces of paper to half of the class each, one has to write an adjective, one a noun. You then pick a paper from each category out of a hat and write up some combinations on the board, and then take a vote or have a silent ballot. (15 mins)
3. Divide students into teams, tell each team they are going to pick four crops out of your list to plan for the market. They should find out the number of days, and the spacing and cultural information. This can be filled out on the attached worksheet (following lesson.) They could either look at seed packets, in seed catalogues, or from the plant list above. (30 mins)
4. Now plan your planting schedule. In groups or as a class, take a crops (four is a good number) and count the days to harvest *backwards from the market date*. E.g. Baby lettuce, for a June 10th Market. Baby lettuce is about 30 days. Therefore, you would have to plant your lettuce May 10th. You can map this out as you did on crop harvest charting, on a spread sheet, or with simple subtraction problems. (30 mins)

Wrap Up

5. Review that you now have a planting schedule for your garden market. Explain that you will use it for planting your vegetables, and you will work on planning for the market further closer to the time. Farmers have to plan a long way ahead for their markets.

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Assessing Student Knowledge

So why would farmers work backwards from their market dates? How is this different from how gardeners might plan? What might affect these “days to harvest”? Why might they not always be accurate? What could our farm do about that?

Extensions

You could also learn about what marketing is, by having students design a logo, advertisements, press releases and fliers. You could plan for more than one market if this pilot project is successful. Consider having one years class grow the vegetables in the spring for the next years class to sell in the fall.

*** MA Department of Ed. Standards in this lesson***

* **Life science 3:** Recognize that plants and animals go through life cycles.

* **Math:** Measurement and Data: 1, 2, 4

Resources

Growing for Market magazine: <http://www.growingformarket.com/>

Massachusetts Department of Agricultural Resources: <http://massnrc.org>

P. O. Box 345 Seekonk, MA 02771

www.aginclassroom.org

Please Visit the Massachusetts Agriculture in the Classroom Website
to tell us how you used this resource.

Thanks!

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Planning for Market

Student: _____

Crop: _____

Days to Harvest: _____ **Cold** or **Warm** weather? (circle one)

Cultural Information: (More info on how to grow it)

Other thoughts or information about this crop:

