# MASSACHUSETTS FARM TOSCHOOL HARVEST of MONTH in CLASSROOM 

## HISTORY



Tomatoes are a member of the family Solanaceae, along with eggplants, peppers and potatoes. They are native to Central America and Mexico; their dissemination throughout the globe was sparked by the Spanish's colonization of the Americas

## FUN FACTS

In Massachusetts, over 500 farms produce 6.5 milliion pounds of tomatoes every year.

## FARMER BIO



Dean Landale is a former ironworker who built big buildings but now grows 20 acres of mixed vegetables at Bar's Farm in Deerfield, Massachusetts on land that has been farmed since 1800. This season they're growing 5,000 jalapenos that they will make into hot sauce and sell to a distillery in Boston. Bar's Farm grows a variety of other vegetables including winter squash, zucchini, green beans, lettuce, cauliflower, flowers and tomatoes. Dean says that their customer's favorite variety of tomato is BHN 589, which is a beefsteak that grows well in hoop houses (see photo!).
Photo credit: Bars Farm

## OBJECTIVES

Students will understand that all plants need different amounts of space to grow and thrive. Students will use their math skills to design a garden bed that can fit different plant varieties while meeting all of their needs.

## ESSENTIAL QUESTIONS

What do plants need to survive? How do plants thrive? How can we design a garden most efficiently?

## MA STATE FRAMEWORK(s)

Grades 3-5 Math Standards

- 3. MD A
- 3. MD B
- 4. MD A
- 5. MD A


## MATERIALS

Grid paper
Clipboards
Pencils
Garden bed with grid layout
Pizza garden plants (basil, tomato, pepper, and maybe wheat!)

## PROCEDURE

## Introduction

There are so many ways we can grow food in a garden, and one of the most fun and exciting things to do is to design garden beds that contain plants needed to create one particular meal. Explain to students that they are going to create a pizza garden. Brainstorm all of the ingredients in pizza that can be grown in the garden. Make a list: basil, tomatoes, peppers, etc. Prompt students to think about what they know about each crop and how the item can be used in a pizza. For example, we can use the tomatoes to make a pizza sauce. Show your students a seedling, and ask them to think about what each plant needs to grow. Do all plants grow to be the same size? If they only look this big now, will they stay this big or will they grow to be much bigger? How can we design a garden bed that meets all of their needs?

## PIZZA GARDEN

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## PROCEDURE

## Activity

Show students the garden bed and the grid. Explain that each plant has its own space needs.
The basil plant stays pretty small, so two plants may fit in one grid box. The tomato plant grows to be very large, and needs a stake, so it will take up two grid boxes. The pepper plant will also grow to be big, and will take up 1 grid box. In pairs, hand out grid paper and clipboards. Invite students to design their own pizza garden based on the space needs of each plant.

## Wrap up/Assessment

Students will have completed the pizza garden grid. They also must show (through tallies or numbers) how many of each plant they will need for the pizza garden.

## EXTENSIONS \& VARIATIONS

## Extensions:

Observe the seedlings closely and discuss the similarities and differences.
If you have the space, plant the pizza garden!

