

## Overview

Students will explore math concepts using harvested vegetables.

## Engage & Explore

When it is time to harvest a crop, take students out to the garden and show them the proper way to harvest. Be sure to wash hands before and after visiting the garden! Make it clear which crops are to be harvested and which need a little more time to grow. Allow the students to harvest the crops. Wash the harvested produce thoroughly.

## Activity

### Kindergarten

- Count the number of each type of crop harvested, identify whether one crop is “more than, less than, or equal to” another crop
- Compare a measurable attribute of the crop (example: carrot length)
- Classify the different crops and count each

### First Grade

- Order the crops by length, measure the length using snap cubes or another non-standard unit
- Organize the crops into categories and count each category (can be organized by crop, color, or plant part; example: roots, leaves, etc.); add the different number of crops

### Second Grade

- Solve addition and subtraction problems using the crops harvested
- Determine if each crop harvested has an even or odd number of vegetables
- Measure the lengths of the vegetables using inches and centimeters. How much longer is the longest than the shortest?
- Graph numbers/colors of each crop harvested

**Grade Level:** K-5

**Subject Area:** Math

**Time Frame:** 1-2 class periods

**Materials:**

Buckets for harvesting  
Snap cubes or other non-standard unit (K-1)  
Rulers (2-5)  
Crops ready to harvest (carrots and radishes work well for this lesson)

**Standards:**

K.CC.5, K.CC.6  
K.MD.2, K.MD.3  
1.MD.1, 1.MD.2, 1.MD.4  
1.OA.1  
2.OA.1, 2.OA.3  
2.MD.1, 2.MD.2, 2.MD.4  
3.OA.1,2,3, 3.NF.1  
3.MD.2, 3.MD.4  
4.OA.2, 4.NF.1, 4.NF.2  
5.MD.1

**Third Grade**

- Solve division problems: divide the harvest into groups of 2, 3, 4, etc.
- Determine the fraction each color crop is of the whole. Example: What fraction of total carrots is represented by the purple carrots?
- Create a graph of the harvest and solve “how many more/less” problems

**Fourth Grade**

- Use the harvest to practice division with remainders. Group the carrots into groups of 2, 3, 4, etc. Which groups have remainders? Why do they have remainders? How do we express a remainder? Have students write division problems to represent each.
- Determine the fraction each color crop is of the whole. Example: What fraction of total carrots is represented by the purple carrots?
- Compare the different fractions. Example: Compare fraction of yellow/total carrots to fraction of purple/total carrots

**Fifth Grade**

- Measure the length of the vegetables in centimeters and convert to meters

**All Grades**

- Have a tasting to allow students to taste what they grew. Ask questions, such as, Why is \_\_\_\_\_ good for us? How does it keep your body healthy?
- Students are more willing to try something they grew. Find a simple recipe that uses the crop and allow students to help prepare it. Have students create their own recipe and prepare it.
- Have students research the crop and find out where it originated and how it is used today. What state/country grows the most? How do other cultures use this crop?

**Your Notes & Ideas**