

## **Growth in the Garden**

**Grade Level:** 4<sup>th</sup>

**Title of Lesson:** Growth in the Garden

**Performance Standard(s) Covered:**

MCC5.MD.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

MCC5.MD.2 Make a line plot to display a data set of measurements in fractions of a unit ( $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ). Use operations on fractions for this grade to solve. Use operations on fractions for this grade to solve problems involving information presented in line plots.

**Essential Question:** How do we measure length in different units?

**Objective:** Students will be able to compare measured length data in different units to 100% accuracy.

**Key Words and Terms:**

- Data
- Measurement
- Line plot

**Learning Activity**

**Abstract:**

Students will measure plants in the garden over a period of a few weeks and collect the data. They will record their data and plot in a line plot and convert their measurements into other units.

**Materials Needed:**

- A garden
- Class set of rulers
- Class set of graphing paper

**Safety Concerns:**

Warn students of insects that bite and sting while in the garden.

**Procedure:**

1. Teach students how to use a ruler in the classroom.
2. Explain to them that you will be going to the garden every other day to measure the height growth of the new seedlings using the rulers.
3. Take the class out and assign each student a plant to measure so that they have consistent results.
4. Students will record their information.
5. Repeat until you have 8-10 days of data.
6. Once all data is gathered have students create a line plot of their data.
7. Have students convert their data into other measurement units.
8. As a class create a line plot of all data collected.