

How Does Your Cabbage Grow?

by
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Grade 3: Math & Science

Duration: Introductory Lesson: 30 - 45 minutes, On-going investigation: 12 weeks

Materials:

Per Student -

Cabbage Growth Journal (see attached reproducibles)

Hand lens

Centimeter ruler

For the Class -

Meter sticks

Chart paper

Lesson Objectives / Outcomes:

The students will:

- Care for a cabbage plant from seedling to harvest.
- Record, analyze, and interpret data using a bar graph.
- Measure height and diameter using the metric system.
- Find the difference between past and current measurements.
- Record scientific observations, inquiries, and sketches.

Vocabulary:

height

diameter

observation

bar graph

centimeter

meter

metric system

difference (subtraction)

Preparation:

- Print and staple **Cabbage Growth Journals**.
- Create a class KWL anchor chart.



Bonnie Plants 3rd Grade Cabbage Program
www.bonniecabbageprogram.com

Whole Group Engagement Activity:

To activate prior knowledge, ask students this question:

“What do you know about cabbage?”

Students are likely to come up with a variety of answers. Have them record these answers under the ‘K’ part of their personal KWL chart. Allow several students to share their responses aloud with the class. Record these responses on the class KWL anchor chart.

KWL		
What I know...	What I want to know...	What I've learned...

to

Next, ask students to locate the column labeled ‘W’ on their KWL chart. Have students record what they want know about cabbage in this column. Again, allow students to share some of their responses, and record these on the class KWL anchor chart.

At the end of the unit, students will complete the ‘L’ section of their KWL chart with what they have learned.

Activity:

1. Introduce students to the ***Bonnie Plants 3rd Grade Cabbage Program***. You may want to have students visit the website to learn more about the program.

Weekly Observation Sheet	
I notice...	I wonder...

cabbage plant will soon undergo many changes.

2. Distribute plants to students. Have students spend a couple of minutes sketching their new cabbage plant on the first **Weekly Observation Sheet**. Encourage students to be as detailed as possible since their

Next, have students record the date and age of the plant (plants will be approximately 28 days old when delivered to the classroom.)

Note: Before measuring the height and diameter of the plants, you’ll want to ensure that your students are familiar with these concepts, as well as how to take accurate measurements. You’ll also want to set some parameters for measuring. For example, you may want to start at the soil line when measuring height, and measure the outermost leaves when looking for diameter.



Extension Activities:

- Find the circumference and radius of the cabbage plant once the head develops.
- Track the daily temperature using a line graph.
- Find an alternative way to represent the data collected.
- Write a silly story about a giant cabbage plant that comes to life.
- Use a Venn Diagram to compare and contrast your cabbage plant with another student's plant.

Internet Resource:

Link to Bonnie Plants 3rd Grade Cabbage Program:

<http://cabbageprogram.bonnieplants.com/>

Relevant Literature:

The Giant Cabbage: An Alaskan Folktale by Cherie B. Stihler
Plantzilla by Gerdine Nolen



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