

My nature connection

PROPAGATION PROJECT

GRADE: K-8

80 billion pounds of food are thrown away in the U.S. every year! Read more to learn how to turn food waste into healthy, edible plants...

Spring is just around the corner, and growing fruits and vegetables from kitchen scraps is a fun way to start your own edible garden.

WHAT YOU'LL NEED

- Pencil
- Ruler (optional)
- Glass of water
- Knife and cutting board
- Adult helper

INTRODUCTION

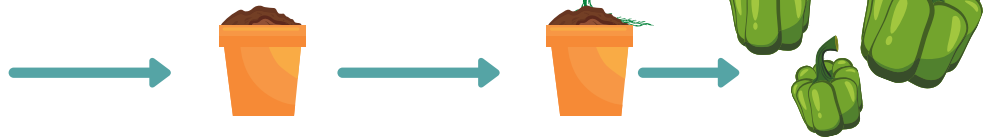
Plant propagation is the process of creating new plants. This can happen in two different ways: either by planting a seed or regenerating an existing plant. Regeneration occurs when you take certain parts of a plant and help them grow into entirely new plants by providing them with water and sunshine.

While you can propagate potted plants in soil, you can also do this using fruit and vegetable food scraps!

This process is similar to recycling because we can take plant parts that would otherwise be thrown in a garbage or landfill and use them to grow more food. This is a great way to reduce food waste and connect with nature.

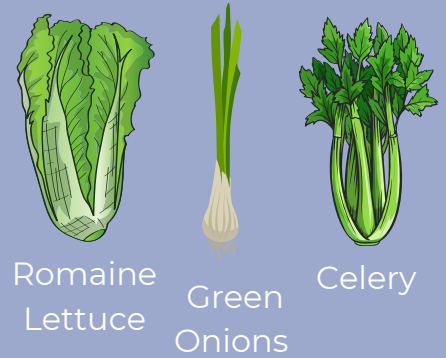
STUDENTS WILL:
Learn about plant growth, propagate a plant from food scraps, and use a measuring tool to monitor growth.

SETTING
A sunny place near a window



Grow Your Own:

A lot of different fruits and vegetables propagate well, and these are a few fast-growing options:



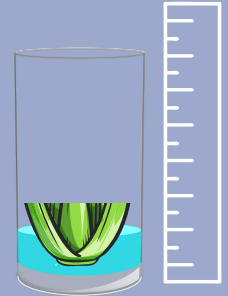
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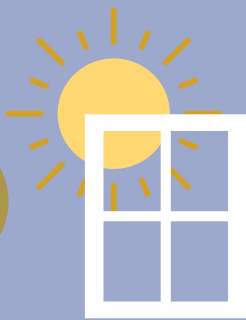
With an adult's help, cut off the plant base (this is the section you normally wouldn't eat.) It should be 1 inch tall.

2

Place the cut side of the food scraps up in a 1/2 inch of water.



3



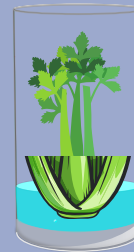
Put the glass by a sunny window indoors.

4

Maintenance: Measure the growth of your plant every day. Replace the water in the glass every couple of days.

5

Enjoy fresh greens!



CONNECTING WITH QUESTIONS

At the end of the lesson, ask everyone what they learned today. How can they take what they've learned today into their lives?

ADDITIONAL RESOURCES

Food waste data
provided by:

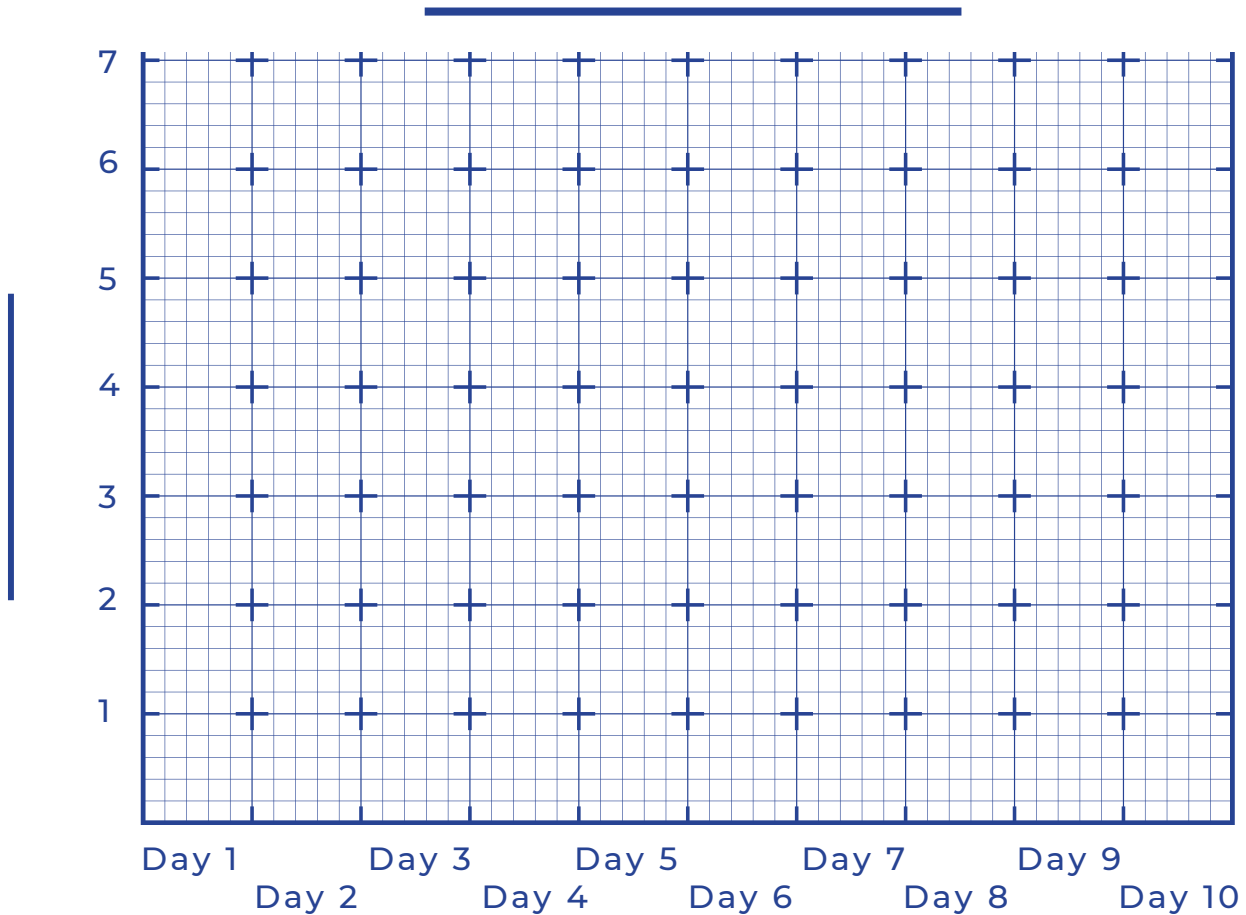


Data Collection:



Which plant did you choose to propagate and why?

Using a ruler, measure your plant's growth and fill in the graph every day for 10 days. Add a title to the graph, the x-axis, and y-axis.



How much did your plant grow over the ten-day period?

What would you change about your method if you were to do this again? (plant, location, access to water, sunlight, etc.)

EDUCATION STANDARDS

Social Emotional Learning Competency:

Grade Level

Science Education Standard

Grade K

0.4.2.1.1 Observe a natural system or its model, and identify living and nonliving components in that system.

Grade 1

1.1.3.2.1 Recognize that tools are used by people, including scientists and engineers, to gather information and solve problems.

Grade 2

2.4.3.1.1 Describe the characteristics of plants at different stages of their life cycles.

Grade 3

3.1.1.2.1 Generate questions that can be answered when scientific knowledge is combined with knowledge gained from one's own observations or investigations.

Grade 4

4.2.1.1.1 Measure temperature, volume, weight and length using appropriate tools and units.

Grade 5

5.1.1.2.2 Identify and collect relevant evidence, make systematic observations and accurate measurements, and identify variables in a scientific investigation.

Grade 6

6.2.1.2.1 Identify evidence of physical changes, including changing phase or shape, and dissolving in other materials.

Grade 7

7.1.3.4.2 Determine and use appropriate safety procedures, tools, measurements, graphs and mathematical analyses to describe and investigate natural and designed systems in a life science context.

Grade 8

8.1.3.4.2 Determine and use appropriate safety procedures, tools, measurements, graphs and mathematical analyses to describe and investigate natural and designed systems in Earth and physical science contexts.

Grades 9-12