



Grades 1 - 3 Growing Leftovers

TEACHER RESOURCES

This is an enrichment activity to further demonstrate how plants grow and how easy it is to grow plants to eat at home.

This goes well with the “Bean In A Bag” and “Plant Parts 1 & 2” activities.

MATERIALS

Your choice of vegetables:

- A small shallow container or jar
- Water
- A pot with a drainage hole (optional)
- Potting soil (optional)
- Optional student journals sheets p.4-5

Really Quick:

- Green Onion

Quick:

- Romaine Lettuce

Longer to grow:

- Beet greens
- Celery
- Carrot greens



LOCATION

A bright window is ideal for growing plants as long as it is not cold. Bright classroom lights will also work.

PROCEDURE

Green Onions

This is one of the fastest, easy to grow kitchen scrap that keeps on providing salad greens over and over.

1. Save the 5-6 cm from the bottom stem of a green onion including the white base with the roots.
2. Place in a container of water so the white part is covered.
3. Place in bright light.
4. Change the water out every few days and the greens will continue to grow.
5. Just snip what you need and allow it to grow as long as you like. After a few days in water you can plant them in soil for better growth.

Romaine Lettuce

1. Save the 3-5 cm from the bottom stem of Romaine or leaf lettuce.
2. Place it upright in a shallow dish with about 2 cm of water - just enough to cover the stem end.
3. Place the dish on a windowsill or under bright light. Change the water every one to two days to prevent bacterial growth.
4. You should see growth in three days. If not, try again. After 10-12 days the lettuce will be about as big as it's going to get.
5. At this point you can pot your plant to continue the growth (or stop and eat it). Once the roots are developed, lettuce does better in soil which provides nutrients needed for the plant to grow to its full size



Beet Greens

This will not grow a new beet but will provide greens for use in a salad.

1. Salvage the top 1- 2 cm of the carrot and place in a container of water leaving the top uncovered.
2. You should notice new green shoots growing in just a few days. Allow the root to continue growing until it's ready to be transplanted in the ground.
3. Harvest the green leaves for salads when ready.



Celery

1. Cut off the bottom or base of your celery.
2. Lay it in a bowl with just a bit of water in the bottom. Keep the bowl in direct sunlight as long as possible.
3. After about a week, you will begin to see the leaves thickening and roots growing along the base. (Don't leave the celery in water for too long, the outer stalks will rot, so it's best to plant the celery in a pot before that happens.
4. When the new roots are about an 1 cm long, you can plant the celery in potting soil. Gently fill in and tamp the surrounding soil so a bit of the cut end and all of the emerging leaves and stalks are above the soil.
5. Keep the soil moist but not wet. Celery thrives in cool weather and rich soil, so give it shade.
6. Harvest stalks by snapping off the outer ribs and letting the inside grow.
7. You can harvest leaves to use in salads, soups, etc.

Carrots

This will not grow a new carrot but will make a nice fern-like house plant.

1. Cut the carrot top off at about 2 cm in length.
2. Fill the small container with water. Fill it up until it is just below the bottom edge of the stump.
3. Place the carrot near a window and watch it grow. Change the water often.
4. When the plant is about a few inches tall, you should transplant them into soil to improve growth.
5. You will see a flower forming within months. Make sure your plant is getting 6-8 hours of sun.



SAFETY TIP

WARNING:

When growing plants in water, be sure to change the water out at least once every other day to avoid bacteria and mould growth.

THE SCIENCE

Plants can grow from seeds but they can also grow from "cuttings". This means taking a piece of the plant and letting it re-grow most of the missing parts. (This is called "regeneration".)

There are some parts that cannot be regrown. For example, carrot and beet tops cannot regrow the large root (tap root) we like to eat, but they can grow, flower and make new seeds.



ENRICHMENT

Explore what other plants can be regrown for your classroom. See the pamphlet at 3NE.ca/Learning:

<https://www.3ne.ca/wp-content/uploads/2021/09/Regrow-Leftovers-Instructions-e.pdf>

Check out what is available on the internet:

The 19 Best Plants to Grow From Cuttings

<https://www.thespruce.com/best-plants-to-grow-from-cuttings-1388585>

VIDEOS

How To Regrow Your Veggies - Ava ClearWaterKids

Nice brief video of child showing how to regrow green onions.

<https://www.youtube.com/watch?v=HiQCn20cdvY>

Carrot Replanting for kids - Kidz colorful World

Simple video showing how to regrown carrots and day by day progress.

<https://www.youtube.com/watch?v=vLuTeAf9krc>

Grow Your Own Plants! - #sciencegoals

Higher level video showing regrown plants and details how to set up an experiment testing what plants need.

<https://www.youtube.com/watch?v=Lly75dEbXE8>

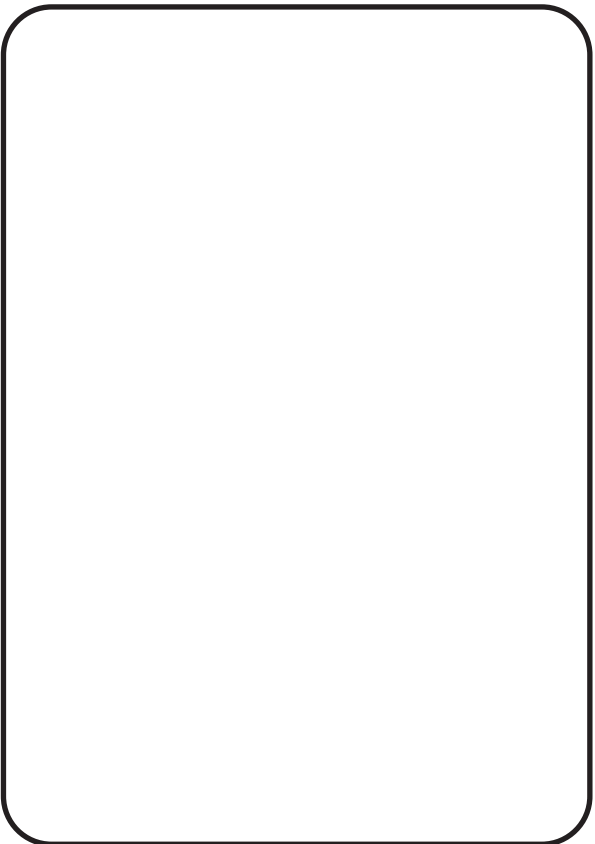
Alberta Curriculum Connections

Gr.	Subject	Curriculum Connection	Detail
1	Science	Topic B: Seasonal Changes	-Identify and describe examples of plant and animal changes that occur on a seasonal basis
		Topic E: Needs of Animals and Plants	-Identify the requirements of plants to maintain life; i.e., air, light, suitable temperature, water, growing medium, space; and recognize that we must provide these for plants in our care. -Identify ways that land plants depend on soil.
1-3	Health	Nutrition	-Recognize the importance of basic, healthy, nutritional food choices to well-being.
2	Math	Shape And Space (Measurement)	-Relate the size of a unit of measure to the number of units used to measure length. -Compare and order objects by length. -Measure length to the nearest nonstandard unit.
	Math	Statistics And Probability (Data Analysis)	-Gather and record data -Construct and interpret concrete graphs and pictographs
3	Math	Shape And Space (Measurement)	-Relate the passage of time to common activities, using nonstandard and standard units (minutes, hours, days, weeks) -Demonstrate an understanding of measuring length (cm, m).

Today's Date: _____

Name: _____

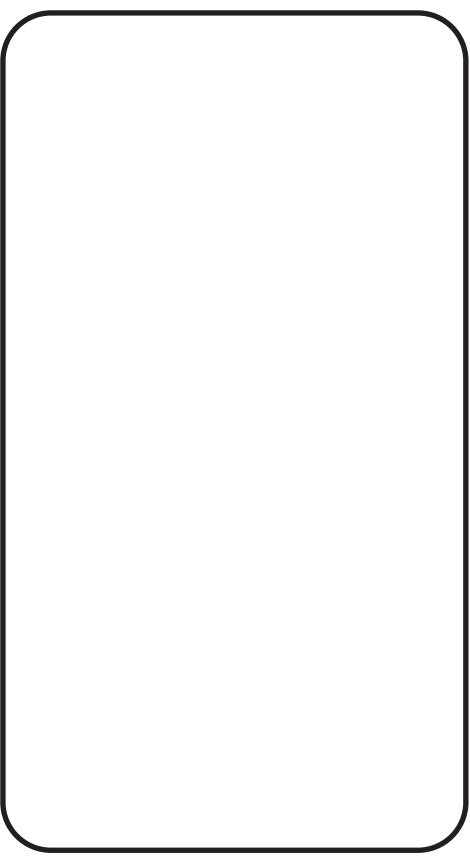
What did I see?



What is new today?

What did I measure?:

Science Journal

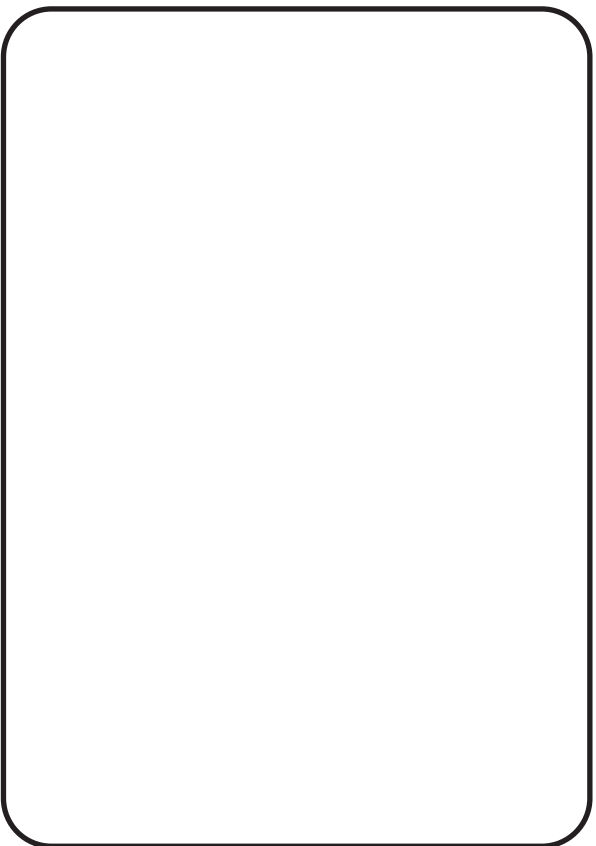


What I am studying:

The date I started:

Today's Date: _____

What did I see?

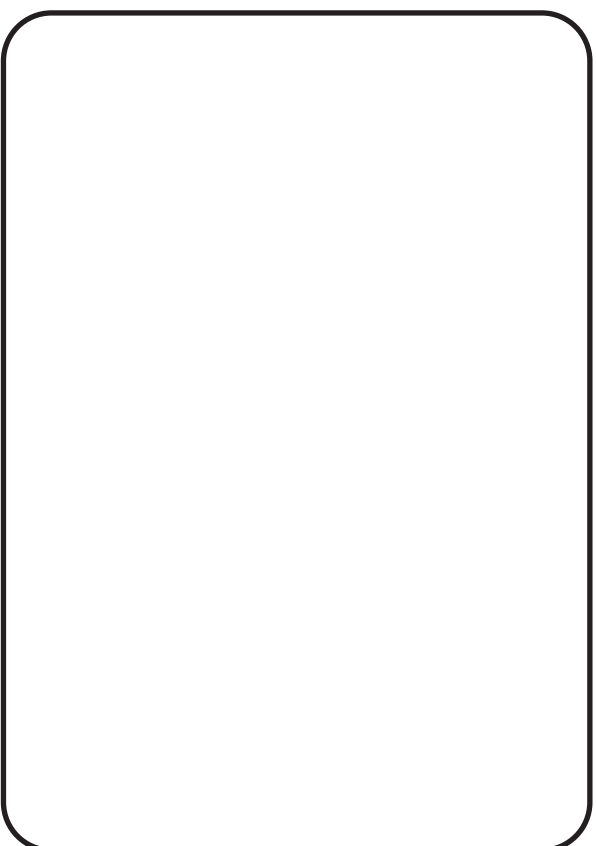


What is new today?

What did I measure?:

Today's Date: _____

What did I see?



What is new today?

What did I measure?:
