



Let it Grow

Many of the fruits and vegetables that make it to your dinner table are grown on farms across our state and country. Farmers carefully plant and tend these crops to grow safe and healthy food for our families. Home gardeners also raise fruits and vegetables; however, they grow plants for their own use, rather than to sell. Different techniques can be used to grow all these plants, including starting from seeds, grafting plants, and starting from cuttings. In this activity, we'll explore re-growing food from kitchen scraps and see what kinds of plants we can grow in your garden.

In this activity, your family will:

- Find leftover foods that can be grown.
- Start new growth from leftover food.
- Observe the growth of a new plant.

Materials needed:

- Kitchen leftovers (*lettuce, celery, green onion, potatoes, or peppers are good choices*)
- Potting soil or dirt
- Containers (cup, bowl, glass or plastic container, depending on what type of plant you start, you may or may not need to poke holes in the bottom of the container)
- Dish to place underneath your container to catch drainage
- Water
- Pencil, paper, and crayons or colored pencils for observations

Key Words to know:

Plant – a living thing that relies on photosynthesis

Soil – the top layer of the Earth's surface, consisting of rock and mineral particles mixed with decayed organic matter; medium for plant growth.

Seed – small object produced by a plant from which a new plant can grow

Seedling – a young plant grown from a seed that has sprouted above the soil

Preparation:

- Check out this article by PBS Utah for some ideas about which types of food scraps to grow, and how long they take - <https://www.pbsutah.org/modern-gardener/stories/regrowing-veggies-from-kitchen-food-scrap>
- Watch these videos for tips on preparing your seeds and plant starts, You can use these techniques to start a variety of plants.
 - How to Grow Peppers from Seed - <https://www.youtube.com/watch?v=5PW1whthnLo>
 - How to Grow Potatoes - https://www.youtube.com/watch?v=_SK75rl2Yao
 - How to Regrow Lettuce in Water - <https://www.pbsutah.org/modern-gardener/stories/regrowing-veggies-from-kitchen-food-scrap>
- Gather some kitchen scraps for planting.
- Depending on what food you've chosen, prepare your container.

Do the Activity:

1. After watching the videos about how to start plants, choose as many foods varieties as you would like, and start your plants. *NOTE: If you don't want to start your plants from leftover foods, you can also use seed packets from the store.*
2. Follow the directions in the videos to grow new food from kitchen scraps. Remember, it can take several days before you notice plants growing, so you'll have to be patient and watch for changes each day.
3. While waiting for your plant to grow, create an observation journal. Create as many pages as you need.
 - Fold a piece of paper in 8 squares. (Fold in half, then fold that in half, and then fold that in half to get 8 squares. Make good creases so you can see the outlines of each square.)
 - For each day of observation, write the date in the square. Leave room to write your observations.
4. Check your project each day and add water if needed. Look for any changes, then draw or write your observations in your observation journal. If you need to use more than one square on your sheet, that is fine. The more observations you record, the easier it is to remember the process. It may take a few days before you notice anything happening, but that is important to record, too.
5. Some things to think about while observing your project:
 - What is the same? What is different?
 - Touch it gently. Does it feel different? Describe what you feel.
 - Has the color changed? Describe it.
 - Has the shape changed? Describe it and draw what happened.
 - Does it smell different? Is it a good smell or a bad smell?
 - Is the size of it changing? Is it getting bigger or smaller?

- Is anything new growing? Describe it. What do you think it is?
 - Can you eat it?
 - Write down or draw anything you find interesting.
6. Continue to observe your project for as long as you like. You may find that some things grow well, and some things are slow and more challenging to grow. Try out different kitchen scraps to see what you can get to grow.
 7. Create a presentation for your family using your projects and observation charts. Things you may want to share with them:
 - How long did it take for the plant to start growing?
 - What was hard? What was easy?
 - What did your plant need to grow?
 - What was your favorite part?
 - Would you want to grow more food?
 - Would you like to plant a garden with your project?
 - How do you think you would go about doing that?
 - Share anything else with them about your project that you found interesting or fun.

Learn more about how plants grow, and some of the challenges that farmers face in these lessons and resources from the Wyoming Stewardship Project.

2nd Grade:

- **Agriculture Educator Essentials** Reference material for starting your class garden.
- **Agriculture Lesson 4** Students see the effects that poor soil, excess/insufficient water, and insufficient light have on a plant's ability to survive. Students make the connection between caring for crops, successful production, and the role of stewardship in Wyoming's agriculture.
- **Agriculture Lesson 5** Students will describe the cause and effect relationship of weather (freezing, heat, and wind) on plants and soil.

4th Grade:

- **Agriculture Lesson 4** Students will understand how different plant characteristics support the survival, growth, and reproduction of various Wyoming crops.