



Becoming a Microgreen Farmer!



Early Elementary STEM Mini-Project

Dear Junior Scientist,

You've probably heard some grown-ups tell you that it is important to eat your fruits and veggies! Have you ever wondered or thought about where fruits and veggies come from? Where do you think they come from?

In this project, you will explore the different parts of plants that we eat, and you will become a veggie farmer and grow some veggies for your family to enjoy!

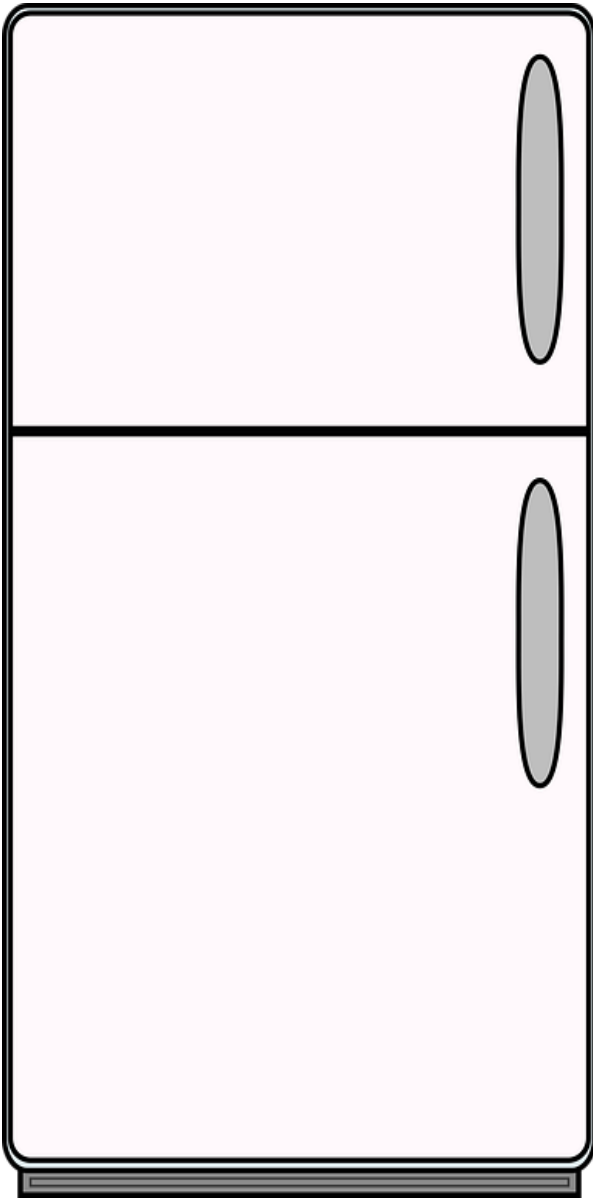
Good luck,

The ESD 112 STEM@Home Team!

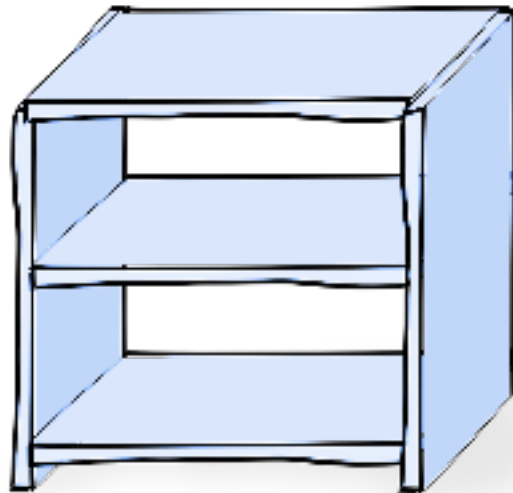
Plant Foods Scavenger Hunt

What foods do you have in your house that come from plants? Ask a grown-up to help you look in the refrigerator and in the pantry to investigate! Draw what you find below.

What's in our fridge?



What's in our pantry?



Let's talk!

How did that scavenger hunt go? Did you find a lot of foods that came from a plant? Plant foods give our body the **nutrients** and **energy** we need in order to grow and survive. Talk with a grown-up. What are the different parts of a plant? Which parts of plants do we eat? Try to think of the different parts of plants that we eat. Draw or write your ideas below.

Fruits



Leaves

Seeds

**Stems
Or Stalks**

Roots or Tubers

Growing your Microgreens

Let's grow our own microgreens to eat! "Micro" means small. What do you think microgreens are? **Microgreens** are very young plants that can be eaten to gain some nutrients. In your STEM kit, you have two different types of seeds, radish seeds and alfalfa seeds. Look below for pictures of both seeds. Find the seeds in your STEM kit. Which one is which? How can you tell?



Materials you will need:

Radish and alfalfa seeds

Small tray

Paper towel

Vinegar and water mixture (1 cup water with 2 tablespoons vinegar)

Directions:

***Grown-ups, you may want to pause and talk about what the words in bold mean.

1. Put the radish and alfalfa seeds into the **flat** open container and cover with water. If you would like to sprout them separately, keep them in different containers (or bowls)
2. Set a timer for 15 minutes and let the seeds **soak**.

3. **Strain** the water from the seeds.
4. Fold a paper towel or cheesecloth and put it at the bottom of the flat, open container.
5. Spread the soaked radish and alfalfa seeds **evenly** across the paper towel and pour another 1 tablespoon of water over them.
6. Place the container near a window where a lot of light enters.
7. Water the seeds daily so the paper towel remains moist. **Moist** means that it should feel very wet when you touch it but the seeds should not be sitting in puddles of water.
8. Keep the seeds moist. You will see a baby plant sprouting from the seed soon! This baby plant is called a **sprout**.
9. Keep watering your sprouts until they reach about 3 inches long. This is about the size of your pointer finger (or the length of three quarters). This may take about 6 or 7 days. Draw pictures of a radish and an alfalfa sprout in your chart on the next page to keep track of their growth.
10. Before you eat your sprouts, they need a wash. Add 1 tablespoons of vinegar to 1 cup of water and swish the sprouts around in this solution.
11. If your sprouts have started to grow into the paper towel, snip off the roots with scissors. Enjoy with a salad or just the way they are. If you'd like to plant a few of your sprouts in the ground and grow radishes, save a few sprouts and don't chop their roots. Look ahead in the "Growing Challenge" section for tips.

Sprout Observation Tracker



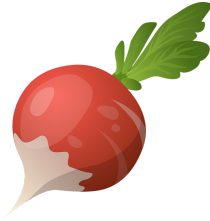
Each day, look at your sprouts and draw what they look like. Pick one radish and one alfalfa sprout to **observe** each day.

Try to look very closely and draw lots of details. Use colors

to show what you see. **Here's a trick:** if a grown-up at home has a smart phone, ask them to help you take a picture of a sprout. Then zoom in on the picture to observe the sprouts super close-up!

| | |
|--|--|
| <p style="text-align: center;"><u>Day 1</u></p> <p>Radish Alfalfa</p> | <p style="text-align: center;"><u>Day 2</u></p> <p>Radish Alfalfa</p> |
| <p style="text-align: center;"><u>Day 3</u></p> <p>Radish Alfalfa</p> | <p style="text-align: center;"><u>Day 4</u></p> <p>Radish Alfalfa</p> |
| <p style="text-align: center;"><u>Day 5</u></p> <p>Radish Alfalfa</p> | <p style="text-align: center;"><u>Day 6</u></p> <p>Radish Alfalfa</p> |

Growing Challenge!



If you're up for an exciting challenge, you can plant a few baby radish sprouts into a pot with potting soil and water and nurture them as they grow into radishes to eat!

Plant a few sprouts with roots facing down and leaves facing up into a pot where they will have at least 8 inches below them to grow.

Place them outside and make sure they get lots of sun.

Water them when you notice the soil is starting to get dry. Once the green part is about 6-8 inches tall, the root will be ready to eat.

If you want to check that they are big enough, place a quarter next to the plant and move away a little dirt so you can see the red part of the radish.

If the radish seems close to the size of the quarter, then you are ready to **pull it out** and eat! The green leaves can also be eaten in a salad.

Buen provecho! Happy eating!

