GROW YOUR OWN MICROGREENS

Learn to sprout this tiny superfood in just a matter of days. Let’s grow!
Grow Your Own Microgreens

Learn to sprout this tiny superfood in just a matter of days. Let’s grow!

About the Activity

Microgreens are a delicious healthy addition to many meals, including salads. In this activity, kids will learn how to grow and take care of plants in a microgreen system.

Supplies

These simple materials will get you started.

You should have most of these at home, but you may need to visit a plant or hardware store for an item or two.

- A planting device of your choice
  - A shallow cookie sheet or aluminum pie dish
  - A mesh-bottom tray
  - A fabric-based placemat
- A second tray for covering your planting environment
- Seeds
- Spray bottle
- Water
- Scissors
- Optional:
  - Soil
  - Grow light bulb
  - Light fixture or lamp

Grades: 3-12

Topic: Food Security, Agriculture

Time: 20 minutes on the first day, then 5 minutes daily afterward
4-H at Home  | Grow Your Own Microgreens

**Before we get started**

**Here’s what you need to know:**

This microgreen experiment is a great example of how easy it can be to grow your own food. Other than your supplies, all you need is a little bit of time and patience.

Microgreens are tiny plants that are harvested soon after sprouting instead of when they have grown to a full-size plant. You can get microgreens from many different types of seeds, including kale, broccoli, arugula, and radish. Not only are they delicious, but they are also extremely nutritious!

Microgreens take about 10-14 days to grow from start to finish, depending on the temperature where they are growing. The warmer it is, the faster the seeds will germinate, and the sooner you will start to see your microgreens stretch and grow.

**DID YOU KNOW?**

Microgreens contain up to nine times the amount of nutrients compared to their full-size counterparts.

A handful of these miniature plants pack a concentrated punch of vitamins, minerals, and antioxidants. Adding these to your diet is an easy way to increase the nutritional value of your meals.

---

**Activity Steps**

Okay, let’s get started.

**Prep your planting method**

There are multiple ways to grow microgreens. Before you can plant, figure out if you prefer to use a hydroponic (soil-free) method. The primary difference between the two methods will be the type of tray you use to plant. A hydroponic method will also require less cleaning at the end.

If you are using soil, you can plant in a mesh tray or use a cooking tray of some kind, like a pie tray or cookie sheet. If you are not using soil, a fabric placemat or drying mat made of microfiber, hemp, or linen can do the trick.

**If using soil:** Before you begin planting, spread your soil throughout the tray, until you have an even layer about one-half-inch to one-inch deep. Gently press the soil into your tray so that it becomes firm.

**Sprinkle your seeds**

Now it’s time to plant (or rather, sprinkle) your seeds! Remember: Less is more. If you sprinkle too many seeds in the tray, they will clump together and encourage mold or fungus to grow.

Follow these steps to encourage proper spacing of your seeds:

1. Place half of your seeds in one hand.
2. Give your tray a light dusting of seeds by sprinkling the seeds across the entire space.
3. Repeat with the remaining seeds, trying to fill in the spots that don’t have as many.
4. If you are using soil, add a thin layer on top of the seeds.

**Tip:** If you are planting more than one type of seed in your tray, you will want them to be approximately the same size to encourage even growth.
Activity Steps
(continued...)

—

Water your seeds
It’s time to grab your spray bottle! Evenly mist the tray until the seeds are saturated and the soil or fabric is moist. Avoid water-logging your seeds! If you notice any puddles, that is too much water.

Tip: Set your spray bottle to mist. If your bottle is shooting out jets of water, that is too much water pressure.

—

Complete the environment
Cover your seeds with a top tray to provide them with a dark and humid environment. Place the tray in a warm, dark place.

Tip: Do not put your microgreens close to a window or exterior wall. These types of environments are usually colder. Since these seeds like a dark, warm environment, they will prefer a warm and cozy spot in your house — at least for the first 4-5 days.

DID YOU KNOW?
Some seeds need light to germinate, while others need darkness. No matter the environment, all seeds need moisture, oxygen, and the right temperature to germinate.

—

Keep it growing!
Continue to water your seeds twice per day. Only remove the cover to water them. Remember: Locking in moisture is important for your seeds to grow!

—

Let there be light
After about 3-4 days, your seedlings will start to search for light and you should see some sprouting! When they get to be about 1-inch tall, they are ready to receive some light.

1. Take the top tray and place it under your seedling tray as the base.
2. Move your tray under the grow light. Keep the light centered over the plants to ensure even growth.
3. Don’t have a lamp? A location with bright daylight will work, too.

Tip: Temperature is less important now, but ideally, you want the temperature to be between 60 and 70 degrees.

—

How to harvest
After about 10 days, your plants should have grown over the top of the tray. You will initially see cotyledons — the first leaves of the plant — followed by the plants’ “true leaves.” When you start to see the true leaves pop out, they are ready to harvest.

To harvest:

1. Do not pull out the microgreens
2. Use a scissors to cut the greens about a half inch above the tray.

Tip: Store your microgreens in a sealable glass or plastic container, a reusable plastic bag, or anything that will hold in moisture. Keep them in the fridge, but do not freeze them or they will turn mushy and go bad.
Test Your Knowledge

**QUESTION 1**
How long do microgreens take to grow before they can be harvested?
- a. 1-5 days
- b. 10-14 days
- c. 30-60 days
- d. 3 months

**QUESTION 2**
Can microgreens grow without soil?
- a. Yes, absolutely!
- b. It depends
- c. Never
- d. I don’t know

**QUESTION 3**
Hydroponic is a ____________________________
- a. Soil-dependent way of growing plants
- b. Soil-free way of growing plants
- c. Type of mineral water
- d. Type of microgreen

**QUESTION 4**
What are cotyledons?
- a. The seeds
- b. The nutrients in the soil
- c. The first leaves of a plant
- d. The plant you harvest

**QUESTION 5**
What do all seeds need to germinate?
- a. Moisture
- b. Oxygen
- c. The right temperature
- d. All of the above

Reflection Questions
- What are the health benefits of microgreens?
- What are some different ways you could eat microgreens?
- Why do microgreens need a smaller growing space than larger plants?
- What are some other ways you could grow microgreens?
Investigate & Explore

Take what you’ve learned to the next level to learn more and explore the possibilities.

There are many different types of microgreens that look and taste different. Some are mild in flavor while others can be spicy or have some zing to them. From broccoli to kale to radish, the list of available microgreens is endless!

To continue this growing exploration, try planting different types of microgreen seeds to see which ones you like best. Add them to all different types of meals — salads, pastas, sandwiches — to experiment with the flavors and where you think they taste best.