



Grade Level: K-2

Essential Skills: 1, 4, 5, 9

CCSS: K.L.1, K.SL.1, K.SL.2, K.SL.6, 1.L.1, 1.SL.1, 1.SL.2, 2.RF.4, 2.L.1, 2.SL.1, 2.SL.2

NGSS: K-LS1-1

Time: 45 minutes

Materials:

**Mighty Microgreens Kit* or:
Per Student**

- Microgreen seeds
- Planting container
- Spray bottle or nesting tray (1020 flat, baking sheet or a container the planted pot can sit in)
- Soil
- Water
- *Sprouting Seeds to Mighty Microgreens* booklet

AITC Library Resources:

Books:

- Seed, Soil, Sun
- Oh Say Can you Seed?
- Sylvia's Spinach
- From Seed to Plant

More Lessons:

- Garden in a Glove
- Living Necklace
- Growing Bracelet

Mighty Microgreens

Description:

Garnish your curriculum with sweet or spicy microgreens! Students will explore plant needs and grow a tasty treat for them to enjoy!

Activity Directions:

Part 1: Introduction to Growing Plants

1. Read a book about growing plants such as *Plant the Tiny Seed* by Christie Matheson, you can find more book suggestions under AITC Library Resources to the left.
2. After reading the book, ask students the following questions:
 - a. What do plants need to grow?
 - b. What types of plants do we eat?
3. Explain to students that they will be learning about microgreens, a small, edible plant.

Part 2: Mighty Microgreens

1. Distribute a copy of the *Sprouting Seeds to Mighty Microgreens* booklet to each student.
2. Read through page 1 and 2 with students, providing time for students to color their books.
3. After reading the pages, ask students the following questions:
 - a. What are microgreens?
 - b. What are microgreens used for?
 - c. How do you grow microgreens?

Part 3: Growing Microgreens!

Teacher Preparation: fill a growing flat or tray with water to allow students to moisten the soil with.

1. Explain to students that they will be growing microgreens and will have the opportunity to taste them when they are ready to harvest.
2. Distribute a growing container to each student. The kit provided from AITC will have a small cup with a hole in the bottom to use as the growing container.
3. Instruct the students to fill their growing container nearly full with soil.
4. Using the baking tray or 1020 flat that contains water, have students place their container with soil on the tray to begin to wet the soil. The water will soak the soil moving through the hole on the bottom of the container.
5. Once the soil is wet, students should remove the container from the water. Provide students with the second cup (without a hole) to stack on the bottom of the growing container.
6. Provide students with the number of seeds needed for their container size based on your calculations below. **If you're using the Dwarf Sugar Pea seeds and growing container provided in the kit from AITC, provide each student with 27-36 seeds and skip the Determining Seeding Rate below.**

Teacher Preparation: Determining Seeding Rate

1. Calculate the area of the growing container to determine the seeding rate.
 - For a **circular container**, use the equation: $\text{Area} = \pi \times \text{diameter}^2 \div 4$.
 - For a **square or rectangular container** use the equation: $\text{Area} = \text{width} \times \text{length}$.
2. As a general rule, plant 10 -12 seeds per inch for small seeds or 6-8 seeds per inch for larger seeds. Calculate the total number of seeds per container using the formula:
Number of seeds per container = Seeds/sq. in x Area.

7. Instruct students to evenly distribute the seeds on top of the soil in their container.
8. After all students have planted the seeds, have students turn to page 3 in the booklet. Explain to students that over the next couple of weeks they will be tracking the growth of the microgreens by drawing pictures of them in the boxes provided in the booklet. Instruct them to label the first line with "Day 0". Day 0 is the day their plant was established. They should draw a picture of what their plant looks like. Have students document their plants growth every 3 days.
9. Instruct students to place the growing containers with their nesting containers in an area with the rest of the class. Cover the containers with the box lid provided in the kit or place in a dark area until germination has occurred. If needed add water to the nesting tray if the soil becomes too dry.
10. After seeds have germinated, place the growing containers in an area where they will be in direct light near a window.
11. As needed, add water to the nesting container to maintain moisture in the soil.
12. The microgreens will take between 7-21 days to grow. Harvest the microgreens using a clean pair of scissors when the true leaf of the microgreens have emerged. Wash the microgreens and enjoy them as a snack in class!



Track the Growth!



DRAW IT!

Draw a picture below for each day of growth for your microgreen plant.



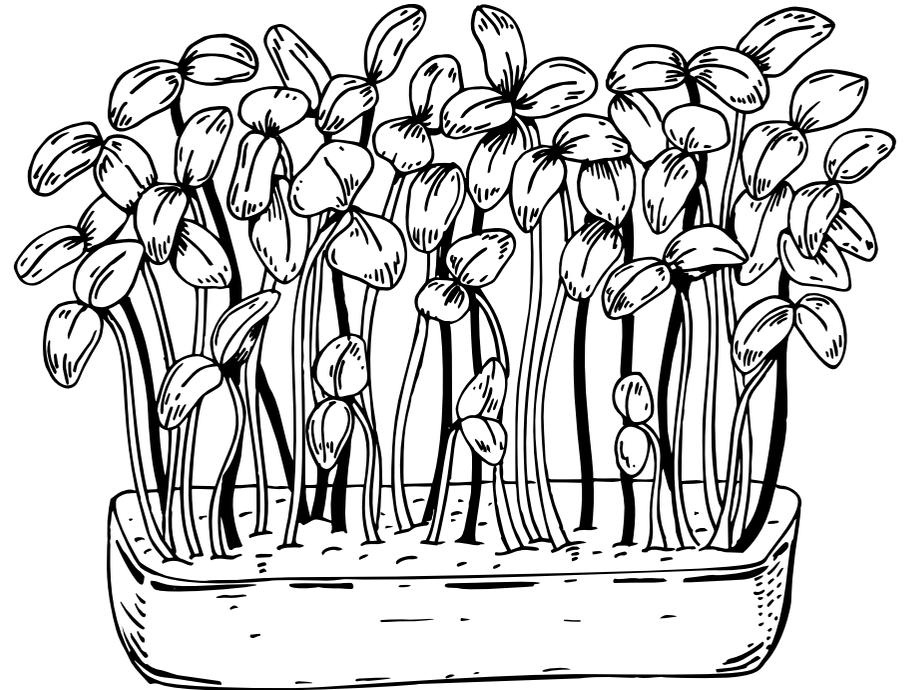
Day _____ Day _____ Day _____ Day _____

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Day _____ Day _____ Day _____ Day _____

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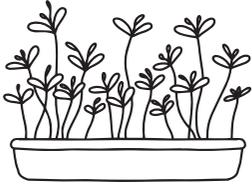
Sprouting Seeds to Mighty Microgreens



Name: _____



What are microgreens?



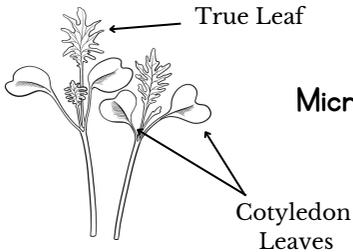
Microgreens are small edible plants.



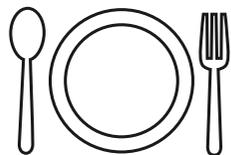
Microgreens come in many different colors and flavors. They can be green, purple or red.



Microgreens make a great topping for your tacos, pizza, sandwiches or salads.



Microgreens are harvested when the true leaf of the plant appears.



Microgreens are a vegetable. They are healthy for us to eat!



Grow Microgreens!

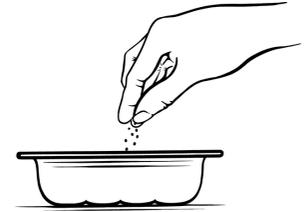


Soil

Fill a container with soil. Water the soil until moist.

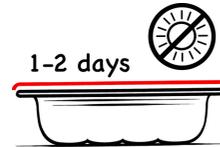
Plant

Add seeds to the top of the soil. Spread the seeds out.



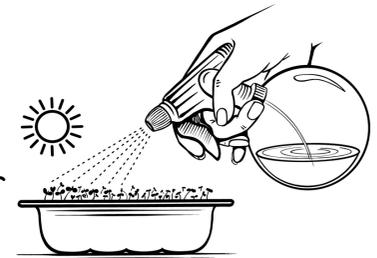
Germinate

Cover the container to create darkness. Once the seeds have sprouted, remove the cover.



Water

Touch the soil to see if it's wet every day. Add water with a spray bottle or in the nesting tray when needed.



Harvest

It will take 7 to 21 days until the microgreens are ready to be eaten. When microgreens are ready, cut using scissors above the soil. Wash them and enjoy!

