



Experiential Activities Grades K-2



Grow Microgreens in Your Classroom (or Home)!

Microgreens are some of the healthiest, nutrient-rich edible plants you can grow. Best of all, it only takes 5 to 10 days to see results, making this a growing project that is perfect for the classroom

Focus Skills: Natural Science, Observation

Grades: K-5

STEP 1. Gather the supplies you need for your growing project, including containers, soil, and a good microgreen seed mix. Easy to come by containers include recycled plastic berry containers or shoeboxes.

STEP 2. Have students fill their containers with a good soil mix. Don't worry about filling it all the way to the top because microgreens don't need much soil.

STEP 3. Give students a small handful of seeds to sprinkle on the top of their soil. Then add one more thin layer of soil on top of the seeds, about a half-inch

STEP 4. Lightly water the new garden. Then check every two to three days to see if more water is needed. Students can do this by just sticking a finger about an inch into the soil. If it feels really dry, it's time to add water.

STEP 5. After 5 to 10 days, you'll see little sprouts coming up from the seeds. After 14 days, you can pinch those little sprouts off and taste them! You could even do a sprout pizza in your classroom using bagel halves, cream cheese, and shredded carrots.

GARDEN TIP: What are microgreens? They are just the seeds of common garden plants like arugula, lettuce, sunflowers, and others. In sprout form they are called microgreens, and they're filled with great nutrition. You can use almost any garden seed to do microgreens, but you might want to look for a seed mix (you can find them on Amazon) to get better sprouting overall.

DID YOU KNOW?

Toys and play provide endless opportunities for creative exploration, which can aid in becoming a creative adult. A recent IBM Institute survey showed CEOs value employees with creativity!



TOY TIME TIP! For a fun spin, use a garden kit that offers a few extras for your students. For example, you can find fairy gardens in the project section of your toy store. You can also look for kits that show the root system of veggies like carrots.



How to Start Seedlings Indoors for Spring Planting

Just because your garden may be covered in snow doesn't mean you can't start your spring seedlings now! Use our six steps to start seedlings indoors for your spring garden.

- 1. Compile Your Gear:** You don't need expensive grow lights. Simple shop lights will do since your seedlings won't be grown indoors long-term. If you have a window with direct sunlight, that may work as well! An inexpensive seedling tray and a bag of potting soil also will be needed.
- 2. Plant Your Spring Seedlings:** Fill your tray with soil (preferably seedling starting soil which is lighter and easier for seeds to sprout through), don't pack the soil down, leave it light and airy! Moisten the soil (consider using a spray bottle to gently spray seeds in the soil), and plant at least two seeds per hole (in case one does not germinate!). Plant a variety of garden seeds in your tray, based on what grows well in your area, and mark/name your seeds with craft or popsicle sticks. Moisten the soil again and cover with clear plastic (saran wrap). During this short time, keep the plants out of direct sunlight (don't use the grow lights either). Check your seedlings daily, water if they get dry but be careful not to water if the soil is damp or seeds may rot. Once you see sprouts in each hole, you can remove the plastic and add your lighting/put in a window. (this may take a couple of weeks!)
- 3. Give Them Light:** Your plants will need about 12 hours of light each day. Hang shop lights just above (no more than three inches) your seedling trays. Or put them in a bright window sill. Provide light daily for six weeks. Water daily.
- 4. Let Your Seedlings Grow:** The plants will grow strong and straight since the light source is directly above. If using window light, continue to rotate the tray so the plants grow straight. After about six weeks, your seedlings will be strong enough to plant outside.
- 5. Acclimate Your Seedlings:** Take the entire seedling tray to your garden/planting area, and let them acclimate to the weather outside for a couple of hours. Take the tray out for longer periods each day as the weather warms. Once frosts end in your area, you can leave them outside all day and get ready for transplanting.
- 6. Transplant:** When the seedlings are acclimated, and spring has truly sprung, replant your hardy seedlings outdoors in pots or in the ground. Follow spacing guidelines for each plant! Your spring garden is off to a great start. See <http://bit.ly/CHGtips> for more advice on planting the seedlings.



Adapted from: <https://www.weedemandreap.com/how-to-start-seedlings-indoors/>



Make Your Own Upcycled Garden Tools

Don't toss those empty milk cartons or soda bottles in the recycling can. Instead, show the kids how to **upcycle** these bottles into useful gardening tools – shovels!

Materials:

- One empty milk carton (1/2 gallon works well) and/or two-liter soda
- Scissors
- Electrical tape
- Decorative tape
- Craft paint and brushes
- Newspapers

Instructions:

1. Rinse out the bottle with warm water to remove milky/sticky residue.
2. Milk carton: cut off bottom and use handle as handle – see photo to the right and one below for ideas!
3. Soda bottle: cut off the top of the soda bottle, using the label as a guide. Set aside the bottom of the plastic bottle. The top of the soda bottle will become your gardening shovel.
4. On milk or soda bottles, cover the rough edges of the bottles with electrical tape to protect little hands.
5. Make sure bottle caps are screwed on tightly, so dirt doesn't fall through the opening when the shovel is used.
6. Cover the table with newspaper and have the kids decorate their bottle shovels with decorative tape or craft paint. Let the shovels drip dry on the newspaper.
7. Get your seedlings ready for planting. Your new upcycled bottle garden shovels are ready to scoop.



Adapted from: <http://www.sheknows.com/parenting/articles/840481/how-to-make-soda-bottle-garden-shovels>



Microgreens Pizza!

Once you have grown some microgreens you can use them on salads, add them to sandwiches, and even add them to pizza! Try this recipe below or create your own pizza using your harvested microgreens.

Ingredients:

- Pea microgreens
- Basil microgreens
- Artisan, whole wheat, or other slices of bread
- Marinara sauce
- Mozzarella

Instructions:

1. Use scissors to cut the greens at the base.
2. Cut up the greens in a bowl.
3. Top the bread slices with marinara sauce, mozzarella, and the microgreen blend.
4. Then bake on high broil until the cheese is melted, keeping an eye on the pizza so it doesn't burn!



Adapted from: <https://www.superhealthykids.com/using-our-micro-greens-pizza/>



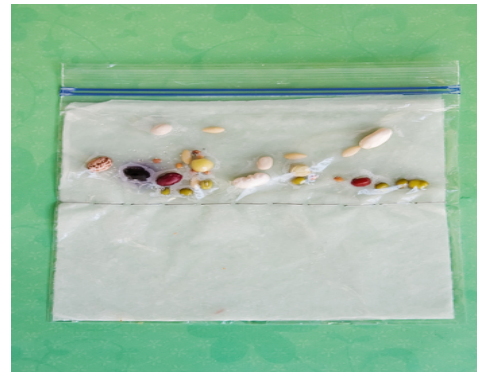
See Seeds Come to Life!

Seeds are immature plants. Think of them as baby plants with a thick, hard coat on them, like a baby chick inside an egg. The hard seed coat gives the baby plants protection until the right conditions are available for them to grow. When those conditions are right—good light, warm temperature, and ample moisture—the seedling comes out to start life as a new plant.

In this activity, you'll germinate some seeds, then watch as they grow and change into full size plants. Not only is this activity fascinating, it also provides a great opportunity to build basic science and nature knowledge along the way.

Materials:

- Seeds – any kind – just a few
- Paper towel
- Stapler
- Plastic bag that zips
- Ruler
- Half cup of water



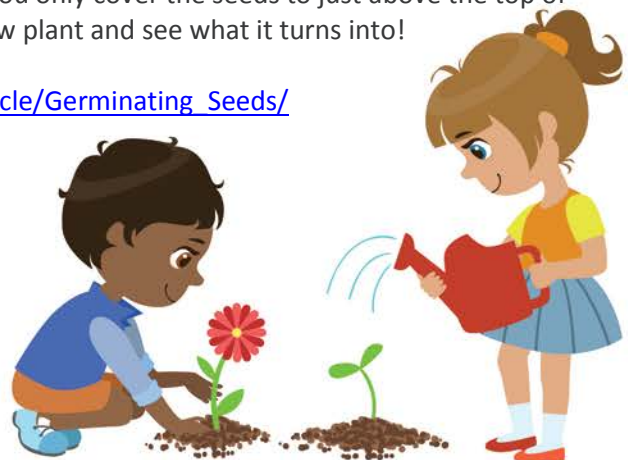
Directions:

1. Fold a paper towel so that it fits just inside the plastic zip-top bag. Place the paper towel in the plastic bag.
2. Help the child use the ruler and measure 3 inches from the top of the bag and staple a bunch of staples in a row across the bag. Now you should have a miniature pocket. Your seeds will sit here.
3. Pour the half cup of water into the bag so your seeds have something to drink.
4. Have the child put the seeds into the bag so that they rest between the plastic and the paper towel in the upper mini pocket you've created. Then help them zip up the bag so that no air can get in or out.

You've just made a mini green house!

5. Help the child tape the mini green house to a window so it gets plenty of light.
6. After a few days (maybe even a couple of weeks depending on what kind of seeds you use) you will see roots and seedlings beginning to form. Carefully open the bag up and use a staple remover to remove the staples (a grown up should do this part).
7. The seedlings are very fragile so make sure you handle them with care! Once you've gently removed them from your mini greenhouse, help the child to carefully plant the sprouted seeds into a pot of planting soil (seed-starting soil if possible). Make sure you only cover the seeds to just above the top of the seed. You don't want to bury them! Nurture the new plant and see what it turns into!

Adapted from: https://www.education.com/activity/article/Germinating_Seeds/



Starting Seedlings

It's time to plan and start seedlings for spring plantings in your home or a garden! Complete the following activity and transplant your plants into a larger container or directly into a garden.

Materials:

- Plain white paper cups, or cleaned half-pint milk cartons with tops fully opened
- Potting soil/seed starting soil
- Seeds (any type that is of interest to you and the children!)
- Sharpie
- Tray (to catch water spills for the next few weeks)
- Spray bottle full of water
- Plastic wrap

Directions:

1. Fill cups/cartons with potting soil.
2. Plant the seeds according to the instructions on the seed packets, then label each cup with the name of the plant in it.
3. Put the cups on a tray and spray them with water until the soil is damp.
4. Cover the tray with plastic wrap and place it on top of your refrigerator, or in some other spot without light/sun. Don't put the tray in a sunny spot.
5. Every day, lift the plastic from the cups for an hour. Water the seeds by gently spraying them with water when the surface of the soil looks dry.
6. When green sprouts appear, remove the plastic wrap and place the tray in a sunny spot. Rotate the tray if the seedlings begin to lean so they will grow straight.
7. When the plants are four inches tall, you can transplant them into a larger pot or the ground.
8. Help the plants adjust by putting the seedlings outside for a few hours each day before you transplant them. After a week, they'll be ready for planting in your garden.

Adapted from: <https://www.familyeducation.com/fun/gardening/indoor-seedlings>

