

Growing Plants from Seeds



United Nations
Educational, Scientific and
Cultural Organization



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Today's activity is about growing plants from seeds! This guide is suitable for many types of plants. However, make sure to double check what conditions your plant of choice prefers. For example, some like full sun and some prefer shade.

Materials:

Soil



Water



Seeds



Containers



Plastic wrap



(optional)

Part 1: Planting the Seeds

1. Choose your seeds:

Great beginner options for vegetables and herbs include green beans, loose-leaf lettuce, and basil. Sunflowers, cosmos, and poppies are some of the easiest flowers to grow from seed.



Tip: Collecting your own seeds from plants or fruit is risky, but can be a fun experiment!

2. Get your timing right:

In most cases, you'll want to start your seed indoors. However, this depends on what you are planting.



- Lettuce and green beans do better when you plant them outside, directly in the ground.
- Plants that are started indoors usually take 3-6 weeks to grow from a seed to a healthy plant that is ready to be moved outdoors, but some can take longer.

Tip: Fresh seeds are more likely to germinate than old ones.

3. Pick your pot:

You can start seeds in almost any type of container, as long as it's at least 2-3" deep and has some drainage holes. If you want to be eco-friendly, you can use things like: egg cartons, yogurt cups, milk cartons, or paper cups.



- Some plants such as lettuce, cucumbers, and sunflowers suffer when transplanted if their roots are disturbed. You can start these seeds outside instead.

4. Prepare your soil:

Choose potting soil that's made for growing seedlings. Start with a fresh, sterile mix that will ensure healthy seedlings. Before filling your potting containers, use a bucket or tub with water to moisten the planting mix. The goal is to get it moist but not soaking wet. Fill the containers and pack the soil firmly to eliminate gaps.



Tip: An easy way to moisten the soil is to use a spray bottle.

5. Start planting!

Check instructions on the seed packet for exact spacing and planting depth, or you can follow these guidelines:



- **Shared tray, one variety:** Scatter the seeds loosely and evenly across the tray.
- **Shared tray, multiple varieties:** Create shallow rows 1-2 inches apart. Drop seeds of each variety into a separate row. Label each row.
- **Separate pots or plug trays:** Plant one large seed (e.g. cucumber or melon seed) or two small seeds (e.g. most flower seeds) in each container.

Cover seeds with soil based on their size. As a rule of thumb, bury seeds to a depth twice the diameter of the seed.

Moisten the newly planted seeds with a mister or a small watering can.

Tip: To speed germination, cover the pots with plastic wrap or a plastic dome that fits over the seed-starting tray. This helps keep the seeds moist before they germinate.

6. Keep the seeds in warm, indirect sunlight:

Most seeds do best in plenty of light, but avoid direct sunlight if the containers are covered in plastic.

- Some seeds germinate best in complete darkness, including tomatoes and coriander. In these cases, you can block the light with black plastic or cardboard.



7. Check moisture levels every day or two:

If the mix looks dry, place the container in another container filled with water. The mix will absorb water from the base of the container. This is less risky than watering from above, which can wash away the seeds or overwater them.

- As mentioned before, the plastic is often enough to retain moisture for the whole germination period. This is just a backup.



Now that your seeds have germinated, let's move on to caring for your new seedling!

Part 2: Caring for the Seedlings

1. Remove the plastic after germination:

Most seeds germinate (sprout) within a couple of weeks. Once sprouts have emerged from the soil, take off the plastic cover (if you were using one).



2. Provide bright light after germination:

Move the container to a bright, south-facing window and rotate the plants daily. Plants grow toward the light. If light only comes from one window, the seedlings will lean into it and grow long, weak stems. Give the containers a quarter turn each day to promote even growth.



3. Water regularly:

The mix must stay moist but not soggy, or the delicate roots will rot or drown. A water bath that lets the container absorb water from



the base is ideal, since watering the sprout may break it.

4. Provide fertilizer once the first true leaves emerge:

Most mixes contain few, if any, nutrients, so you'll want to feed the seedlings with fertilizer a few weeks after they germinate.



The first set of leaves that appear are known as the seed leaves or cotyledons. The second set of leaves are the first 'true leaves,' and a sign that your plant is getting mature and ready for serious growth. Follow the instructions listed on your fertilizer with regards to quantity and use.

5. Transplant your seedlings outdoors:

Once the weather is warm, transplant them to a permanent outdoor pot or garden bed. Follow the specific directions for your plant, since every species has different temperature and sunlight needs. These are the steps:



- Wet the soil both in your plant's pot and in the new hole.
- Carefully transfer the root ball to the new hole.
- Add soil to the same planting depth as before.
- Water heavily to bring the soil in contact with the roots.

6. Maintain your plants:

Transplanting is rough on plants, and it can take several weeks before new roots become established. After the initial watering, keep the plant moist but not soaked.



Great job! You've completed all the steps in growing a plant from seed. Now just make sure to keep checking on your plant to make sure it has enough water - they can dry out very quickly in the summer heat!

Send us feedback on how this activity went and we'll enter you into our weekly draw!

Show us your results! Snap a picture and share it with us on social media, or email it to the MABR Coordinator, at mandy.hobkirk@viu.ca



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