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nourishing minds, bodies, and communities

Seed Starting

Theme

Seed Starting

Subjects

Science

Prep Time

10 Minutes

Learning Environment

Garden

Lesson Time

50 Minutes

Grade

K-8

Role of Teacher

Classroom management

Materials

Ingredients

- N/A

Equipment

- Newspaper cut into 3 by 11 inch strips
- Rulers (if students are cutting their own newspaper strips)
- Scissors
- Sterile soil
- Bowls
- Spoons
- Seed trays (to place pots in)
- Seeds (tomatoes, peppers, and basil or your choice)
- Pot Makers (we use this brand: <http://www.planetnatural.com/product/pot-maker/>)

Background Information

- Starting seeds indoors allows gardeners to get a head start on the growing season before seeds can actually be planted outside. Starting seeds indoors, rather than buying transplants, gives gardeners a much greater choice as to which varieties of plants they want to grow, such as heirlooms, and whether they want them to be certified organic.



- To start seeds indoors, proper lighting and care must be given to the plants. The use of a windowsill or grow light are both acceptable sources of light for the starts. Seed starting soil can be bought or made from scratch if the right ingredients are readily available. Cups, seed trays, newspaper pots, and a variety of other containers can be used to start seeds indoors, as long as they can be watered and have proper drainage.

Topics / Goals / Learning Objectives

- To understand how to start seeds indoors.
- To learn how to make a recycled and decomposable newspaper pot.

Opening / Hook

Welcome! Today we are going to learn how to start seeds for our garden indoors. Why do you think we start seeds inside in the winter, rather than just planting them outside when it becomes warm enough in May or June? (Allow time for brainstorming.)

That's right! We begin seeds indoors during the winter when it's too cold to plant outside because when the weather gets warmer, our seeds have already become small plants and will reach maturity and be producing much earlier in the growing season than any plants sowed outside directly from seed.

Who knows the difference between a warm weather crop and a cool or cold weather crop? (Allow time for brainstorming.) Warm weather crops are grown during the warmest months of the year because they grow much better in the heat, and cool or cold weather crops can tolerate much cooler temperatures, and even need to experience a frost to be able to grow properly.

Today we are going to start tomatoes, peppers, and basil, all of which are warm weather crops, which we now know means that they thrive in the heat and when the sun is at it's most intense during the peak of summer.

Before we begin to start our seeds, let's brainstorm all the different types of foods we can make with tomatoes, peppers and basil! (Allow time for brainstorming and answers.) Yum! All of that food sounds so delicious, and I'm excited for when we get to harvest these plants that we're starting today and make all of those delicious dishes together in the fall!

What supplies do you think we'll need to start our seeds indoors? Let's think about all of the things seeds need to grow. (Allow time for brainstorming.) We will need soil, water, and a pot for them to grow in, as well as a light source or access to the sunlight. Today we are going to make our own pots out of recycled newspaper. Watch closely as I demonstrate how to make the pot. Let's begin!

Procedures / Activities

Prep: Gather materials. Cut the paper into the right size strips.

1. Welcome students to the class and introduce the lesson with the Opening above.
2. Distribute the supplies to all of the students (newspaper strips and/or scissors and rulers to cut their own, pot makers, sterile soil, bowls, spoons, water and seed packets). The students will dampen their soil so that it forms a ball in their hands, but does not drip excessively when squeezed.
3. Demonstrate how to use the pot makers. Have students pay close attention as you slowly wrap the newspaper around the upper neck of the pot maker, fold the edges under, and press down firmly onto the base to finish your newspaper pot.
4. They can then begin making and filling their pots. Have them continue making pots and filling them with soil until each student has made 3 or 4.
5. Using a finished newspaper pot, demonstrate how to fill the newspaper pot with potting soil. Explain:



1. Hold your pot over the bucket
2. Make a mountain! (Sprinkle a big handful of soil into your pot until it forms a large mound on top)
3. Give it a haircut! (Cut the extra soil off so it is level with the top edge of the pot)
4. A little more for good luck! (A little extra on top)
5. Tuck it in! (Gently pat down on top so that soil is totally level with the top of the pot)
6. "Use your 'powerful pinky of planting' to poke a very tiny hole in the soil. For these seeds, the hole should be no deeper than your fingernail." Check students' work. Distribute seeds and instruct student to place two seeds into the small hole in the soil surface. When all students are finished planting, instruct them to lightly cover the seed with soil and gently "tuck it in".
7. Collect finished pots and place them in separate seed flats labeled "tomatoes" or "peppers" or "basil" (and the varieties if applicable). Finally, use a hand sprayer to water the seeds in, then place the flats in a warm, sunny, and draft-free area of the classroom.

Extensions / Adaptations / Games

Students can keep track of how their seeds are growing each week in a garden, science, or general observation notebook. Have them record when they first emerge, when their first leaves grow, and when their true leaves form. (When their true leaves appear, they are ready to be moved to a larger pot.)

Lesson Resources and/or Credit for Adaptation

Seed Starting, Edible Schoolyard Pittsburgh. www.edibleschoolyardpgh.org