

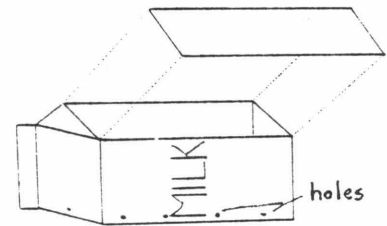
vegetable seeds

Probably the best part of growing plants is watching them break through the soil a few days after you plant seeds. It's hard to believe that all that plant comes from such a tiny seed, needing only a little water to start it growing. In this project you can see for yourself.

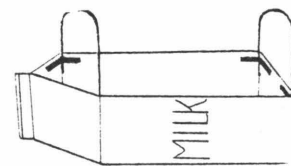
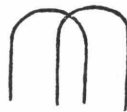
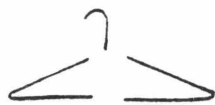
Just for Fun - A Mini-Greenhouse

You'll need: $\frac{1}{2}$ gallon milk carton
 coat hanger
 clear plastic or a plastic bag
 wire cutters
 masking tape

1. Clean a $\frac{1}{2}$ gallon milk carton. Lay it on its side so that the opened spout is up. Cut off the side with the spout to form an open box, and punch holes for drainage.



2. With wire cutters, cut coat hanger wire and bend it so that it makes an arch. Fit the two wires into the box as illustrated. Tape the wires into the corners of the box so they'll stand up.

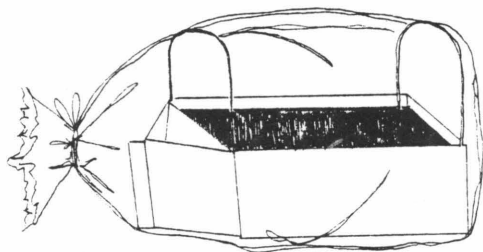


3. You may fill the greenhouse directly with soil mix, or you may use peat pots or pellets inside it. Peat pots and pellets make transplanting easier, so if you are going to plant your seedlings in a garden, you may want to use them. Read "Seeds, Soils, Supplies" HELP sheet for more information.
4. Once the greenhouse is filled, drape over it a piece of plastic large enough to cover the entire box and wires, and tuck the ends under. Or, cover the greenhouse with a plastic bag and tie it.

Name _____

LD
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Be sure to put leftover plastic where little brothers and sisters can't reach it. A person can suffocate with plastic over his or her face!



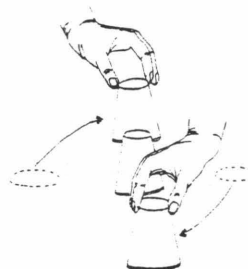
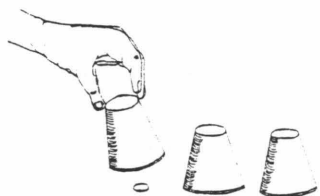
5. Make as many greenhouses as you need if you are starting plants for the Container Garden or Vegetable Garden project. You can also use other types of boxes or nursery flats, but you may need to adjust the size of the wire or plastic to fit.

Game - Where's the Bean?

You'll need: 3 cups
1 bean

One player is the Wizard and the rest are the Audience. The Wizard puts the bean under one cup, in full view of the Audience.

Then the Wizard moves the cups all around on the table, two at a time, for about 15 seconds, not lifting the cups off the table. MOVE FAST! When the Wizard is done, the Audience guesses which cup the bean is under. Take turns being the Wizard.



Project - Vegetable Seeds

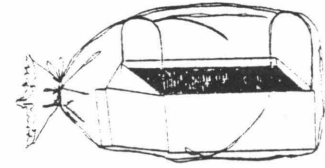
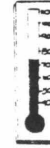
You'll need: sunflower seeds
thermometer
mini-greenhouse



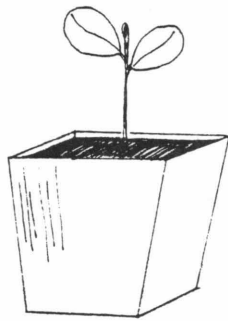
choice of: jiffy-7's or peat pots or paper cups
seed-starting mix

1. Read the "Seeds, Soils, Supplies" HELP sheet. If you are going to do several projects, you may want to buy a seed-starting mix or make your own. If this is the only Urban Gardening project you will do which requires you to start seeds, Jiffy-7's may be less expensive.

2. Plant the seeds as instructed in the HELP sheet. Put your pots or pellets in the greenhouse and cover with plastic. Place the greenhouse in a warm place; write down the temperature for your records. If it is under 65° try to find a warmer place for faster sprouting.

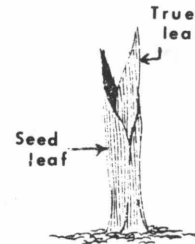


3. Check your greenhouse every day to see if your seeds come up. If the soil seems to be getting dry, water carefully, but if you keep the greenhouse cover on, you shouldn't have to water much. Write down how many days it takes for the seeds to come up.

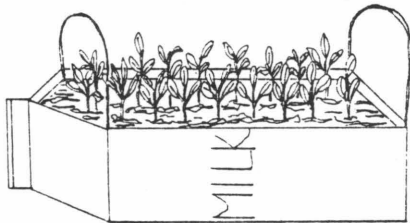


4. The first two leaves you'll see on your plants are the *cotyledon leaves*, or *seed leaves*. These are special leaves which were part of the seed. They contain stored food to help the tiny plant get off to a good start. Since there are *two* cotyledon leaves on a sunflower plant, the sunflower is called a *dicotyledon-type* plant or a *dicot* (*di* means "two").

Grasses (including corn) and some other plants have only *one* seed leaf and are called *monocotyledon-type* plants or *monocots* (*mono* means "one"). As you can see, the two types of plants grow differently from the start.

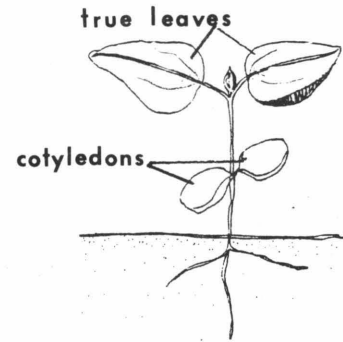


5. When all your seeds have sprouted, or *germinated*, remove the cover and move your plants to a sunny place, like a windowsill or a very sunny room. Again, write down what the temperature is in the room, and make sure it is over 65° or your plants will grow very slowly. Plants will usually grow best in west or south windows if you have them. This is because there is more light there. During the summer, however, the south side may get too hot or too bright for some plants.



6. After a few days, you will see a second set of leaves on your sunflower seedlings. These are the *true leaves*, and the rest of the leaves that grow on your plant will look similar to these true leaves. See the drawing on the next page.

(Note: if you planted your seeds directly in your mini-greenhouse, without small pots or peat pellets, the time when the first true leaves appear is the time to transplant them to containers of their own. Hold the plants by the cotyledon leaves if possible. The stem is very tender. See the "Transplanting" HELP sheet.



Draw a picture of your seedlings now that they have their true leaves and put this in your records. Label the leaves on your drawing.

7. If you are going on to the Container Garden or Vegetable Garden project, you should keep your sunflowers growing until time to transplant into containers or garden. Other vegetable seeds can be started in your mini-greenhouse. Try some.

Record - keeping

Keep a notebook or piece of paper near your greenhouse so you can write down these things for your records:

- variety of sunflower
- how many seeds you planted
- where you put your greenhouse after planting? temperature?
- how many seeds germinated?
- date first seed sprouted? last seed?
- temperature of place you moved sprouted seeds to
- problems and possible causes
- other comments

Extra projects

You can do some extra projects if you like growing seeds: (1) Sprouting Seeds for Food, (2) Experiments, (3) Showing your Sunflower at a Fair, and (4) Harvest and Prepare Sunflower Seeds. Ask your leader for instructions.

New Words

cotyledon leaves: the seeds leaves; the first leaves to appear on a plant; special food-storage leaves

dicot: a type of plant with two cotyledon leaves

germinate: to sprout; to begin to grow

monocot: a type of plant with one cotyledon leaf

true leaves: all leaves that are not seed leaves