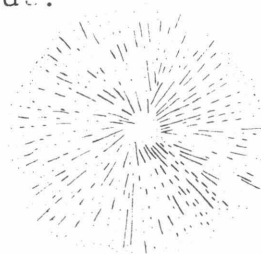


## kitchen garden

Did you know that you can grow plants and make designs from things you find in your kitchen? That's what this project is about.

### Just for Fun- Mushroom Prints

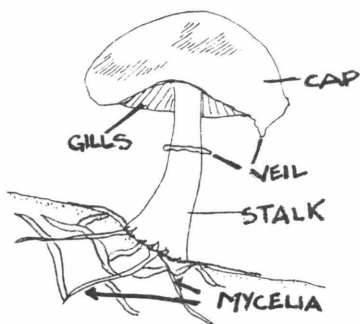
You'll need: very mature mushrooms  
 heavy light-colored paper  
 hair spray



Mushrooms are plants that do not have chlorophyll - the pigment that makes other plants green (see "Things Plants Need" HELP sheet). Since mushrooms don't have chlorophyll, they can't make their own food, so they get their energy by breaking down tissues of living or dead plants and animals.

Mushrooms belong to a family known as fungi (plural of "fungus"); grocery store mushrooms are the "fruit" of the fungus. The rest of the plant is made of thread-like mycelia (my-see'-lee-uh) growing in soil or on plant or animal tissues. Sometimes mycelia are very hard to see, but in the fall after leaves have been on the ground for awhile, you can see the white threads of mycelia on old, wet leaves; usually underneath the dry top leaves.

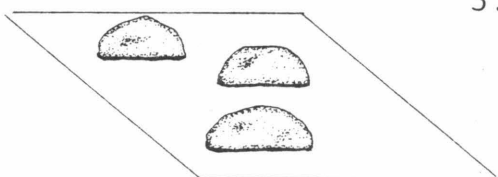
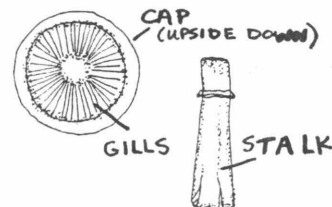
All fungi do not make mushrooms; the fungi that cause tomato diseases, for example, do not. But for the ones that form mushrooms, thousands of tiny spores are formed on the gills, which are located on the underside of the cap (see picture below). Spores are like seeds which can grow into new plants. You can see spores by making a spore print. Spores fall off the gills in a pattern. They are still very tiny and hard to see individually, but all together they will make a nice design.



1. Use mushrooms from the store that are a little on the old side, but not dried out or mushy. The grocer may give you some that are too old to sell. Look underneath the caps; the veil should be broken and the brown gills exposed. Very small or unopened mushrooms will not work since their spores are not mature enough to fall off onto the paper.

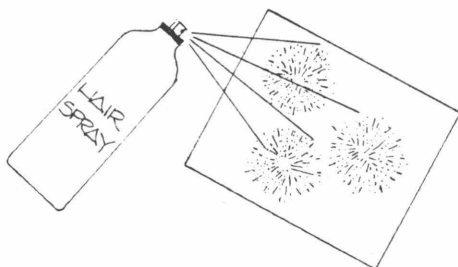
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2. Cut the stalks off carefully. If there is some of the tissue-like veil left, trim it away so that the gills are exposed. (Or, you can leave part of the veil for a different shape design.



3. Lay the cap or caps gills down on the paper; cover with a bowl to keep the cap(s) from drying out, and leave them there for about 24 hours. Don't peek! If you pick the mushroom up, you may ruin the pattern.

4. After the time is up, pick up the cap(s) and look at your spore prints. Each of those teeny little dots is a spore. It's very difficult to grow mushrooms from spores because they require a sterile (germ-free) environment, but you can buy kits which allow you to raise your own mushrooms from mycelia (see your leader for an extra project on raising mushrooms.



5. Do more spore prints if desired to make a nice design, and spray very carefully with hair spray to hold the spores in place.

If your spore prints do not come out well, it may be because the mushrooms are too young, too old, or too dry. Try again.

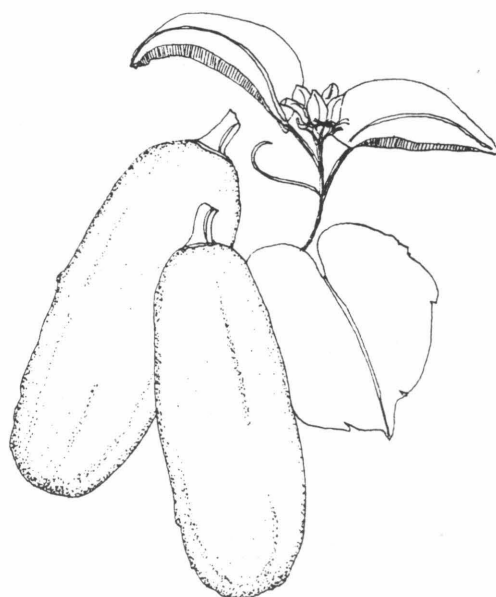
### Game - Scrambled Veggs

Unscramble the vegetables:

urcmuceb	prepp
lldraco sneerg	reelwamton
shromumo	mupnikp
karo	brrhaub
lepo snabe	ragapasus

You'll find some of these vegetables (but not all) when they are unscrambled:

okra	snap peas	
pumpkin	collard greens	
turnip	rhubarb	
cucumber	pole beans	beets
asparagus	lima beans	mushroom
watermelon	pepper	cantaloupe
squash	artichoke	potato



## Project - Kitchen Garden

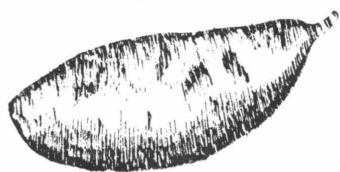
You need: carrots and radishes  
 a sweet potato, sprouting if possible  
 a few cloves of garlic  
 seeds from an orange, lemon or grapefruit  
 (spread on a paper towel and let dry)  
 containers - milk cartons and 1 gallon milk jug  
 saucer or dish  
 seed-starting mix or vermiculite, moistened  
 plastic bag

If you've ever grown any of the kitchen garden plants above, you can substitute one of the Extra Projects (see your leader), but plant at least four.

- (1) Carrot and radish plants can be grown just by cutting about an inch off the top (the unpointed end) of the vegetable and placing the top in a dish with water or  $\frac{1}{2}$  inch of seed-starting mix in it. Put the dish in a windowsill or a warm, bright place (not hot sun, though). In a week or so the tops will start growing new leaves. Add water as needed. (Unfortunately, these will not grow new carrots or radishes, and you will have to toss them out eventually. But they make nice house plants as long as they live.)

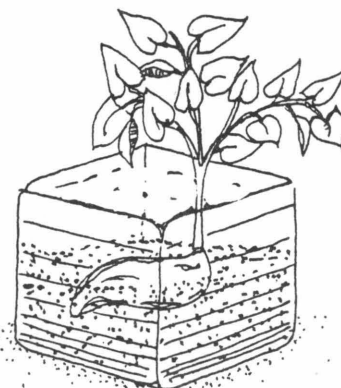


- (2) Cut the top off a milk jug, and punch a few holes in the bottom part. Cover the bottom with 2 inches of vermiculite or seed-starting mix (see "Seeds, Soils, Supplies" HELP sheet).



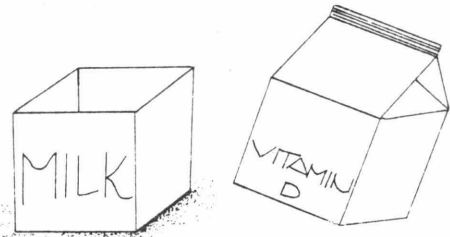
Lay the sweet potato on its side in the container, covering halfway with vermiculite or mix. Put the container in a warm place and let it sprout. Add water if the mix starts drying out.

If you are going to plant a garden or would like a container full of sweet potatoes, you can use your sprouts (or "slips") to grow sweet potatoes. When each sprout has 2-3 leaves, cut it off, leaving a small piece of potato attached. Set the slips in vermiculite to encourage root growth and keep moist and in a sunny place until time to transplant outdoors or into a large (tub-size) container.



You can also use your sweet potato plants in either the phototropism or thigmotropism experiments (see Extra Projects).

- (3) Separate a garlic bulb into cloves and select three or four of the plumpest ones. Plant these, pointed end up, in a container filled with potting soil about 3 inches apart. (A milk carton cut in half, with holes punched in the bottom, will make a suitable container.) Cover with 1" of soil. Water and place in a very sunny spot. Fertilize as directed for container vegetables. For more information on garlic growing, see MH 428, Garlic, which you can get from your leader or Extension office.



- (4) Plant seeds from citrus fruit in a small (4"-5") pot or milk carton cut in half, as shown above. Fill the pot 2/3 full with seed-starting mix and plant 2-3 seeds per pot. Cover with 1/2" more soil mix, moisten, and cover the carton or pot with a plastic bag. Treat as you would other growing seeds (see HELP sheets), and when it has several leaves, transplant your citrus tree(s) to a larger container. They make unusual house plants.

## Record - keeping

Keep records of each kitchen plant you grow. Include:

- what you grew
- how long it took to sprout
- how long did you keep it (or do you still have it?)
- a drawing or photograph of each plant you grew showing what it looked like after sprouting
- the same records for any Extra Project you do

## Extra projects

There are many other kitchen plants you can grow. Try some of these: (1) avocado, (2) pineapple, (3) sprouts, and (4) mushrooms (this one may be pretty expensive). Or, you can do some experiments to discover how plants grow: (5) phototropism, and (6) thigmotropism. See your leader for instructions.

## New Words

phototropism: (photo = light; tropism = turning) the way plants turn toward the light

slips - sprouts or cuttings

thigmotropism: (thigmo = touch; tropism = turning) the way plants turn toward an object