

Growing Your Own Slime Mold

In this experiment, you will observe cellular slime mold cells acting together and searching for food

MATERIALS NEEDED:

- *Petri dish *Paper Towel *Scissors
- *2 pie-sized dishes with clear lids
- *Distilled water *Eye dropper
- *1-ft length of rubber tubing
- *Rubber or Nitrile gloves
- *Slime mold samples collected from wooded area or purchased from a science supplier (*Physarium polycephalum* and *Mxzomycophyta*)
- *Uncooked rolled oats *Colored pencil
- *Different cereals and/or fruit (for the slime mold food)
- *Vinegar and/or nail polish remover (to add as a toxin)



Experiment Set Up:

- *Wear rubber or nitrile gloves to prevent contamination of your set up.
- *Cut three one-inch lengths of rubber tubing, and then cut down the length of the tubing so they are open circles.
- *Fit the tubing pieces around bottom of the pie dish as shown in the diagram.
- *Place the petri dish inside the pie dish.
- *Cut out a circle of paper towel larger than the petri dish and lay it on top of the petri dish.
- *Wet the paper towel thoroughly with distilled water.
- *Place the clear lid of the pie dish over the set up.

Grow Your Mold:

- *Place a sample of the slime mold on the paper towel with a drop of water.
- *Once the slime mold is rehydrated and moving around, place an uncooked oat in contact with it.
- *Keep the dish covered whenever you are not feeding the mold.
- *Once the mold starts to grow larger, place more uncooked oats in its path and watch it grow!
- *Keep the paper towel moist (you can use a spray bottle filled with distilled water to mist the paper towel).
- *Throughout the experiment, take pictures of the mold or make sketches to document the life of the mold. Use the colored pencils to note any color or size changes. Record your observations.

Experiment:

- *On different trials, try using different cereals or fruit to feed the molds. What helps the mold grow best? What foods do the molds prefer?
- *On other trials, try added small drops of toxins, like vinegar or nail polish remover. What happens? Why?