

GROWING MICROORGANISMS ACTIVITY

The process of growing fungi and bacteria is simple and can be completed using materials available at the grocery store. This project is intended to introduce your students to some of the bacteria and fungi found in their work environment. When making the formula make sure the implements you are using are clean and disinfected and wear gloves when making the cultures. It is a good idea to test several different things such as work station counters, brushes and combs, blow dryer and curling iron handles, shampoo bowl, hands, reception desk, pedicure tub, manicure table, esthetic lounge, etc. We recommend swabbing one implement after use; clean and disinfect it; then re-swab the implement and culture it again.

Supplies

1.5 packets of plain gelatin (1pkt plus 1 ½ tsp.) (\$1.99/4 pk box)

1 cup of water (make sure water is boiling to dissolve gelatin, bouillon & sugar)

2 teaspoons of sugar

4 beef bouillon cubes (\$2.50) (This will grow bacteria. If you want to swab from items leave this out.)

10 petri dishes (or 6 foil muffin cups) (\$.55 each)

10 petri covers (or 6 zip lock plastic sandwich bags for muffin cups)

Scotch tape (tape lids closed)

Q-tips – 1 per petri dish

Note: this formula makes 10 petri dishes containing 1 tablespoon of mixture per dish)

Equipment

Small cooking pot (or microwave)

Measuring cup and measuring spoons

<u>Time</u>

The project takes 30 minutes or less, including time required for mixture to cool.

Directions

Line up your petri dishes and covers, measure 1 Tablespoon of gelatin mixture into dish and let set – about two hours. (Placing covered petri dishes in a refrigerator speeds setting time.) While mixture sets up make labels for each petri dish cover indicating where culture was taken. (Example: Jane's curling iron, Pam's client chair, Tom's right hand, etc.) When mixture has set up use a Q-tip to swipe Jane's curling iron handle and wipe Q-tip across top of set mixture. Adhere label to the lid and place it back on petri dish. Tape sides closed. Continue with each label, swiping for the bacteria and wiping on the petri dish mixture. Allow culture to germinate for several days. Students can view culture growth daily to see the importance of cleaning and disinfecting.

<u>Cost</u>

\$10 for purchased supplies. Many items can be brought from home and add little additional cost.

Potential Hazards

Boiling water, make sure water does not boil over or scald someone's skin when heating or pouring into petri containers. Once covers have been taped closed do not open the container to avoid spreading fungi, spores and bacteria. Dispose of used Petri dish by double sealing in a plastic zip lock bag and place in a covered waste receptacle. DO NOT reuse petri dishes or muffin cups!