



California State University of Bakersfield, Department of Chemistry

Grow Your Own Bacteria

Standard:

Grade Five, Life Sciences, 2, a, Students know multicellular organisms have special structures/

Grade Four, Life Sciences, 2, c, Students know decomposers recycle matter.

Introduction:

Bacteria are a fascinating type of organism which play a large role in our lives whether we like it or not. Try growing your own sample of bacteria while monitoring how it reproduces in a short period of time. Compare your original sample with that of others and get proof that bacteria are truly everywhere.

Materials:

- Petri dish of Agar
- Cotton swab
- Some old newspaper

Safety:

- Always have an adult with you to help you during your experiment.
- Always wear eye protection and gloves when doing chemistry experiments
- Conduct this experiment in a well-ventilated area.

Procedure:

1. Prepare your Petri dish with agar.
2. Using a cotton swab, swab an area in the classroom to collect a sample.
3. Rub the swab gently several times on the agar in the Petri dish, replace the lid on the dish.
4. Seal the dish to prevent air from entering.
5. Place the dish in a warm area for 3 to 5 days.
6. Check the growth of bacteria every day and make an observational drawing and describe the changes.
7. Dispose of the bacteria by wrapping in an old newspaper and placing in the trash, do not open the dish.

Data and Observations:

Record your observations in this space

What did you see? Anything you were not expecting? Describe it here.

Questions:

1. How many different bacteria can you identify?
2. Are any bacteria destroying other bacteria in the dish?
3. Why do you keep the dish sealed?

References

1. Grow Your Own Bacteria, Science Kids .com, [http://www.sciencekids.com.co.nz/experiments/breeding bacteria.html](http://www.sciencekids.com.co.nz/experiments/breeding_bacteria.html), accessed July 23,2012.

