

Looking For Change

You and your child will determine what happens to bananas when they come in contact with yeast.

PROBLEM:

How does yeast act on bananas?

MATERIALS:

- dry yeast
- ripe banana
- 2 plastic bags
- magnifier
- labels



PROCEDURE:

1. Peel the banana and cut it in half.
2. Place one half in a plastic bag and seal it. This is your control.
3. Sprinkle the remaining half banana with a small amount (10-20 particles) of yeast and place it in the other plastic bag. Seal it.

4. Label bags "Banana" and "Banana with Yeast".
5. Predict what changes, if any, will occur in each bag.
6. Using the magnifier, observe the contents of each bag. Record the date and observations on the chart.
7. The next day, observe, record and draw your observations again.
8. Repeat this for 4 more days.
9. How have the bananas changed from the time they were put into the bags? What differences are there between the banana with yeast and the one without yeast? How are bananas with yeast changing in size and shape? What do you think caused the bananas to change? What is your evidence?

Date	Describe the banana with yeast	Drawing	Describe the banana without yeast	Drawing

Summary: Yeast, like mushrooms and bread mold are different kinds of fungi. The sugar in the banana interacts with the yeast causing a chemical reaction called fermentation.

EXTENSIONS:

Further Investigation:

- Label 3 small paper cups A, B and C. Fill each cup halfway. To cup A add a 1/2 tsp. of sugar. To cup B add 1/4 tsp. of yeast. To cup C add both 1/2 tsp. of sugar and 1/4 tsp. of yeast. Observe the cups after 15 minutes, and 30 minutes. Record your observations. What changes took place?
- Repeat the experiment using grape juice in place of water. Predict what will happen.

Literary Connections:

- Gibson, Gary. *Making Things Change*. Copper Beech Books, 1995.
- Gibson, Gary. *Science For Fun: Making Things Change*. Copper Beech Books, 1995.

Related Web Sites:

- <http://www.eecs.umich.edu/mathscience/funexperiments/agesubject/lessons/beakman/bread.html>
- <http://www.teachers.net/lessons/posts//1229.html>