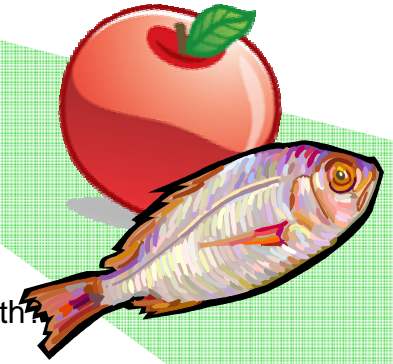


# The Yeast of Our Worries



**QUESTION:** What strategies are useful to reduce microbial growth?

**MATERIALS:**

- |                          |                             |
|--------------------------|-----------------------------|
| household products*      | stirring rod                |
| marker                   | sugar (½ tsp package) - 6   |
| medicine dropper         | thermometer                 |
| metric ruler             | water (warm) - 100 mL       |
| plastic cups (clear) - 3 | yeast (active) - 3 packages |

\*cola, dish detergent, hand soap (liquid), hydrogen peroxide, isopropyl alcohol, mouthwash, toothpaste

**PROCEDURE:**

1. Decide which two household products you will investigate in this activity. Use the marker to label two of the cups with each of the two products you have chosen. Label the third cup “Control.”
2. Make up yeast solutions in each cup. To do this add about 150 mL of warm water to each cup. Next, add 1 package of active dry yeast to each cup and mix gently with the stirring rod, Add two packages of sugar to each cup and stir gently with the stirring rod. Finally, add 5 drops of the appropriate test solution to each cup. For the “Control” cup add 5 drops of water.
3. Place the cups in a warm area.
4. Examine the cups every 10 minutes. Do this for 30 minutes. Measure the height of the layer of foam and record this amount in the Data table.
5. At the end of 30 minutes, line up the cups in order of foam height.

**DATA:**

	HOUSEHOLD PRODUCT	HEIGHT AFTER 10 MIN	HEIGHT AFTER 20 MIN	HEIGHT AFTER 30 MIN
Control	//////////////////// //////////////////// ////////////////////			
Sample1				
Sample2				

## **LS – Activity #43**

### **QUESTIONS:**

1. Which substances were most effective in limiting the growth of yeast?
2. How do you account for the differences in the amount of foam produced?
3. In the space below (or on a separate sheet of paper), construct a bar graph of your data.
  
4. How does this activity relate to your life?
5. What factors influence the populations of microorganisms?
6. Do you think the substances killed all the yeast cells in the containers?
7. Why might some yeast survive while others die?
8. Why are differences in the yeast important to its survival?
9. What are some methods used to prevent the growth of harmful microorganisms?
10. What measures can you take to reduce the number of microbes that may affect your health?