

Explore How can you observe changes in a population?

Materials

plastic cup

water
(must be room temperature)

graduated cylinder

dry yeast

medicine dropper

microscope

2 plastic microscope slides

2 plastic coverslips

sugar cube

plastic spoon

paper towel

clock or watch

plastic wrap

What to Do

- 1 Use the graduated cylinder to measure 25 mL of water. Pour the water into the cup. Stir the dry yeast into the water.
- 2 Using the dropper, place one drop of the yeast and water mixture on the microscope slide. Cover the drop with the coverslip.
- 3 Put the slide on the microscope and observe the yeast. Do not move the slide around on the microscope. Count the yeast cells you can see. Record the number of yeast cells on a chart like the one shown.
- 4 Add one sugar cube to the cup. Stir until the sugar dissolves. Cover the cup with plastic wrap.

- 5 After 3 minutes, put another drop of the yeast on a slide. Cover the drop with the coverslip. Cover the cup.
- 6 Observe the yeast with the microscope. Count the yeast cells. Record the number on your chart.
- 7 Every 3 minutes, repeat steps 6 and 7 until your chart is complete.

Explain Your Results

1. How did adding sugar change the yeast population?
2. How might crowding affect the size of the yeast population?

Data and Observations

	Number of Yeast Cells
Yeast and Water	
Yeast, Water, and Sugar	
3 minutes	
6 minutes	
9 minutes	
12 minutes	
15 minutes	
18 minutes	