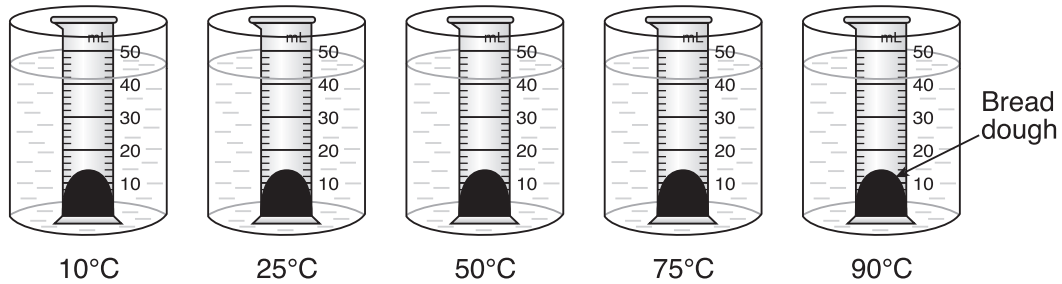


Base your answers to questions 52 through 55 on the information below and on your knowledge of biology.

A biology class conducted an experiment to determine the rate of respiration of yeast in bread dough at various temperatures.

Bread dough will rise due to the production of carbon dioxide by the yeast present in the dough.

An equal amount of dough was placed in the bottom of each of five graduated cylinders. Each cylinder was then placed in a different water bath to maintain a particular temperature. A diagram of the setup is shown below.



The amount of expansion of the dough in each cylinder was measured after 15 minutes. The results are shown in the data table below.

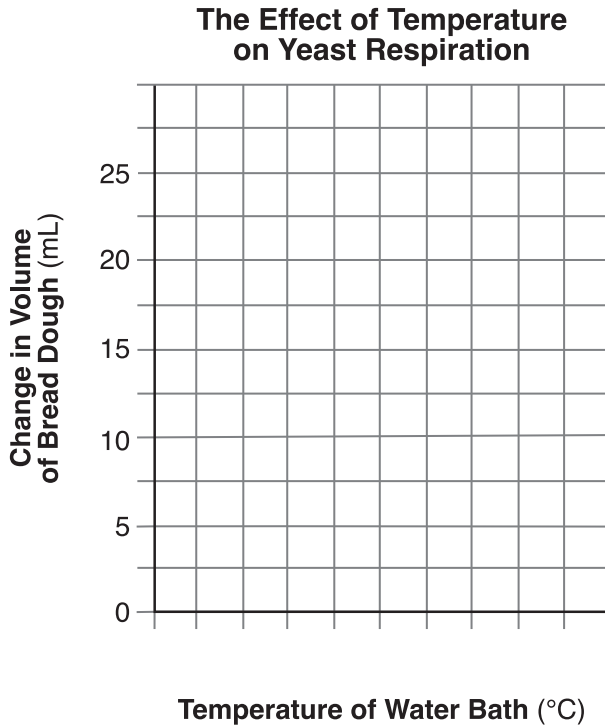
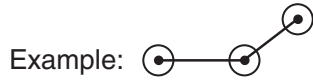
The Effect of Temperature on Yeast Respiration

Temperature of Water Bath (°C)	Change in Volume of Bread Dough (mL)
10	4
25	11
50	20
75	25
90	2

Directions (52–53): Using the information in the data table, construct a line graph on the grid, following the directions below.

52 Mark an appropriate scale, without any breaks, on the axis labeled “Temperature of Water Bath (°C).” [1]

53 Plot the data from the data table. Surround each point with a small circle and connect the points. [1]



54 At which temperature did yeast cells produce the *least* amount of gas in 15 minutes? [1]

_____ °C

55 Identify the independent variable in this investigation. [1]
