

## Making a Line Graph

Use this information to help you make a line graph for your findings in the Test It! on page 66.

### What You Need

graph paper

pencil

ruler

### What to Do

1. On your graph paper, draw a rectangle at least 20 squares wide and 20 squares high.
2. Mark the  $x$ -axis. (This is the horizontal line running along the bottom of the rectangle.)
  - Label this axis with the name of the manipulated variable: Temperature of Water ( $^{\circ}\text{C}$ ).
  - Decide on a scale for your  $x$ -axis. Include the temperatures from  $0^{\circ}\text{C}$  to  $100^{\circ}\text{C}$ .
3. Mark the  $y$ -axis. (This is the vertical line running along the left side of the rectangle.)
  - Label this axis with the name of the responding variable: Time for the Tablet to React (s).
  - Decide on a scale for your  $y$ -axis. Label the bottom of this axis 0. Mark the time, in seconds, up the  $y$ -axis.
4. Title your graph: Temperature and Rate of Change.
5. Plot each of the data points from your table.
  - What was the exact temperature of the room temperature water? \_\_\_\_\_
  - Place your finger on the line that represents this temperature on the  $x$ -axis.
  - How long did it take the tablet at room temperature to dissolve? \_\_\_\_\_
  - Place another finger on the line that represents this time on the  $y$ -axis.
  - Now follow those lines along the graph until your fingers meet. Place a dot at this point.
6. Repeat Step 5 for ice water and hot water.
7. Draw a line that joins each of the points you have plotted on the graph.