

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°C to 100°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.