

# Cool down


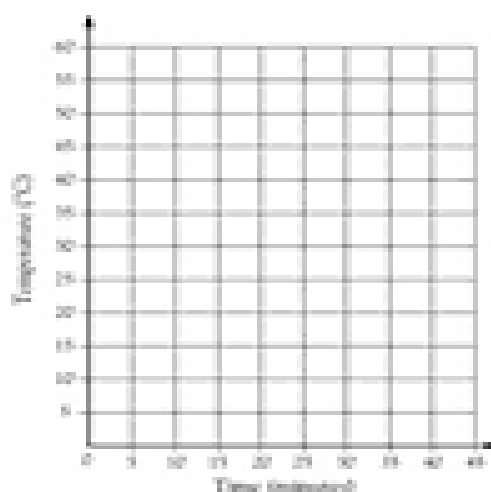


## Background knowledge

Hot water will cool down until it reaches the temperature of its surroundings. There is a pattern in the way things cool down.

## Science activity

Look at the axes on the graph below. Estimate the shape of a line showing how hot water cools down. Draw this line on the graph. Francesca did an experiment to see what really happens. Her results are shown in the table on the right. Plot the results on the graph using a different color pencil. Do a line graph and connect all of the points. Does it match the drawing you made? Explain.



| Cooling time | Temperature of water |
|--------------|----------------------|
| 0 minutes    | 60°C                 |
| 5 minutes    | 45°C                 |
| 10 minutes   | 38°C                 |
| 15 minutes   | 34°C                 |
| 20 minutes   | 31°C                 |
| 25 minutes   | 29°C                 |
| 30 minutes   | 28°C                 |
| 35 minutes   | 27°C                 |

Predict the temperature after 45 minutes. Explain. \_\_\_\_\_

### Science investigation

Design and conduct your own experiment to measure the change in the temperature of refrigerated water that is placed in room temperature. Create a data table and graph your results.