

# Hot Stuff

You need: an electric jug, a coffee mug, an insulated coffee mug, a thermometer, graph paper, a watch, a classmate

## ACTIVITY

1. Follow these instructions:

Boil a jug and then carefully pour some of the water into a coffee mug.

Use a thermometer to find its temperature.

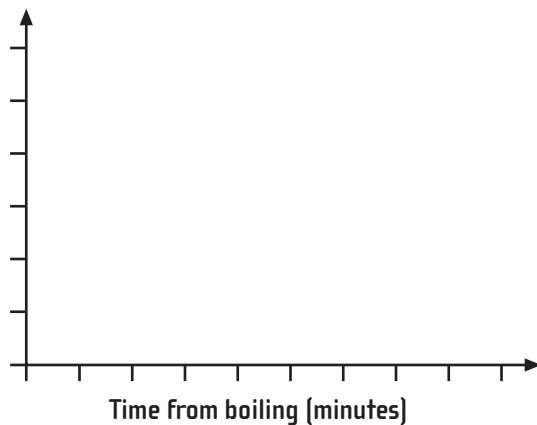
Record the temperature and note the time.

Measure and record the temperature every 2 minutes, for the first 10 minutes, and then every 5 minutes.

Time from boiling (minutes)	Temperature (degrees Celsius)
0	
2	
4	
6	
...	

2. Draw a graph like this. Use it to record your results:

Temperature [°C]



3.
  - a. Describe what happens to the temperature as time goes by.
  - b. Will the temperature reach zero? Explain your answer.
4. Are insulated (thermal) mugs effective in keeping drinks hotter for longer? Repeat the activity using an insulated mug and plot your results on the same set of axes. Describe what you find.

