How hot is water from a tap, river or swimming pool?

Scientists use thermometers to measure temperature.



# You will need

* safety glasses
* thermometer that reads 1 – 110°C
* 250 mL beaker
* hot and cold water from different places

**Tech tip**

Make sure the thermometer stays in the liquid.



Always make sure that your eye is level with the thread in the thermometer.



* cup of tea or coffee

# Safety

**Wear safety glasses when using liquids.**

**Take care when using hot liquids!**

# What to do

1. Put150 mL of cold tap water in the beaker.
2. Predictits temperature and write it in the table.
3. Measure the temperature using a thermometer, and write it in the table.
4. Predict, then measure and write the temperature of each of these test solutions.

* washing-up water
* cup of tea or coffee
* water from a fridge
* water from the hot tap
* water from a pond or pool

# Results table

Fill in all columns of this table.

|  |  |  |
| --- | --- | --- |
| WATER SAMPLE | ESTIMATED TEMPERATURE | MEASURED TEMPERATURE |
| cold tap water |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# Questions:

1. How close were your predicted temperatures and measured temperatures? Did your predictions get better?

1. What unit is temperature measured in?

1. Do you know at what temperature water freezes or boils? If not, find out.

# Challenge

Does the shape of a container affect how quickly hot water cools?

Use an open-investigation planning sheet to help you answer this challenge.