

The temperature readings on both thermometers decrease at the same rate, however, the analogue thermometer had a higher reading through most of the ten minutes.

Analogue thermometer

Digital thermometer

Advantages:	Disadvantages:	Advantages:	Disadvantages:
An analogue thermometer is simple to use. All you have to do is put the thermometer in the water.	An analogue thermometer is more difficult to read as there are so many little lines. There may also be parallax error when looking at an angle.	This responds to the temperature change almost instantly. This is because there is a metal probe which can conduct heat faster. The metal probe is also very small in size.	A digital thermometer requires power, unlike an analogue thermometer.
An analogue thermometer is easy to clean, unlike a digital thermometer.	takes time to respond to the temperature change. This is because the thermal energy has to transfer into the thermometer.	It is easier to read as the temperature is shown on a screen.	A digital thermometer is harder to clean.
An analogue thermometer does not require a power source.	An analogue thermometer does not measure above 100°C.	The information can be computerised and used to control lab and industrial processes.	A digital thermometer has to be calibrated to keep accurate readings.

Circuit 3: Spring oscillations

Analogue voltmeter: