

Q1. (2023)

a)

using the funnel was a safety precaution

b)

bottle **A** was the control

c)

stopclock / stopwatch

d)

- use the same (start) temperature for each experiment
- use the same number of layers of insulation
- or**
- use the same thickness of insulation
- so that temperature difference can be compared

- use the same volume of water
- so (total thermal) energy of water is the same (each time)
- or**
- so the same area of the bottle surface is heated by the water

- use a lid for each bottle
- so evaporation is reduced / stopped
- or**
- so energy loss from the water (surface) is reduced / stopped

- repeat the investigation and calculate mean values
- so anomalous results can be identified
- or**
- so the effect of random errors is reduced

e)

bar (chart / graph)

(type of) insulation is not numerical values

or

(type of) insulation is labels / categories