

P2 -Specific heat Capacity

Total volume of NaOH added / cm ³	Mean maximum temperature / °C
0	22.5
5	24.3
10	27.2
15	29.1
20	31.1
25	31.9
30	32.3
35	31.6
40	30.8

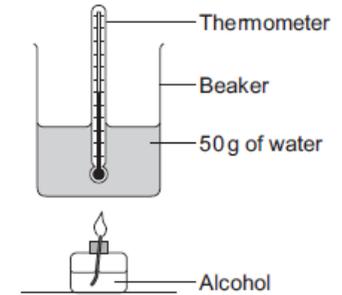
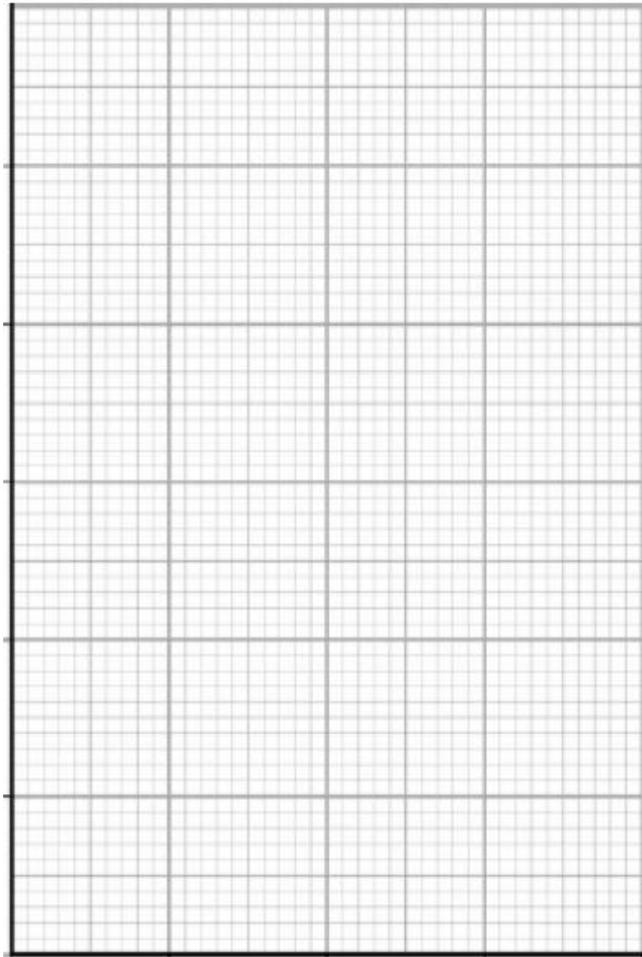
A student added sodium hydroxide to hydrochloric acid and measured the temperature.

Plot a graph of the student's results and draw two straight lines of best fit.

From the graph read off the maximum temperature change.

This is an example of an exothermic reaction. Can you explain why the results show the temperature starting to fall after a certain volume of sodium hydroxide had been added?

Give the definition for specific heat capacity



A student uses the above equipment to measure the energy change from the combustion of methanol.

What safety precautions should the student take?

Above is a different version of the physics practical which could still use the equation

$$\Delta E = m \times c \times \Delta \theta$$

