

GCSE Physics A (Gateway)

J249/01 Physics A P1-P4 and P9 (Foundation Tier)

Question Set 15

1 A student puts an ice cube into a beaker. The mass of the ice cube is 40 g.
The ice cube melts.

(a) (i) Write down the mass of the water produced.

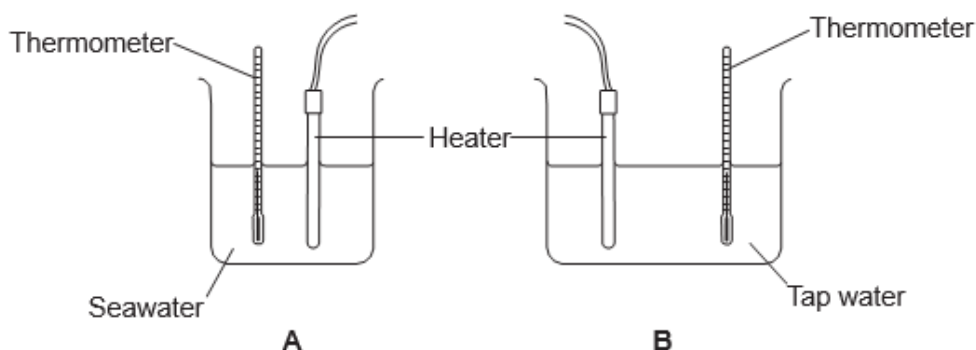
Mass= g [1]

(ii) Explain your answer to (a)(i). [2]

(b) Describe **one** difference between a **physical change** and a **chemical change**. [1]

(c) A student does an experiment to find the difference between the specific heat capacities of seawater and tap water.

The student places a heater and a thermometer into two beakers, **A** and **B**. Look at the diagram.



(i) There are 5 steps to the method for this experiment.

Complete the missing steps for this method.

Step 1 – Put seawater into beaker **A** and tap water into beaker **B**.

Step 2 –

Step 3 –

Step 4 –

Step 5 – Calculate the temperature change of beaker **A** and beaker **B**. [3]

(ii) Suggest **one** mistake the student made when choosing their equipment. [1]

Suggest **two** improvements to the method followed

1

2 [2]

Total Marks for Question Set 15: 10

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