

Q1.

Figure 10 shows some apparatus that may be used to determine the specific heat capacity of water.

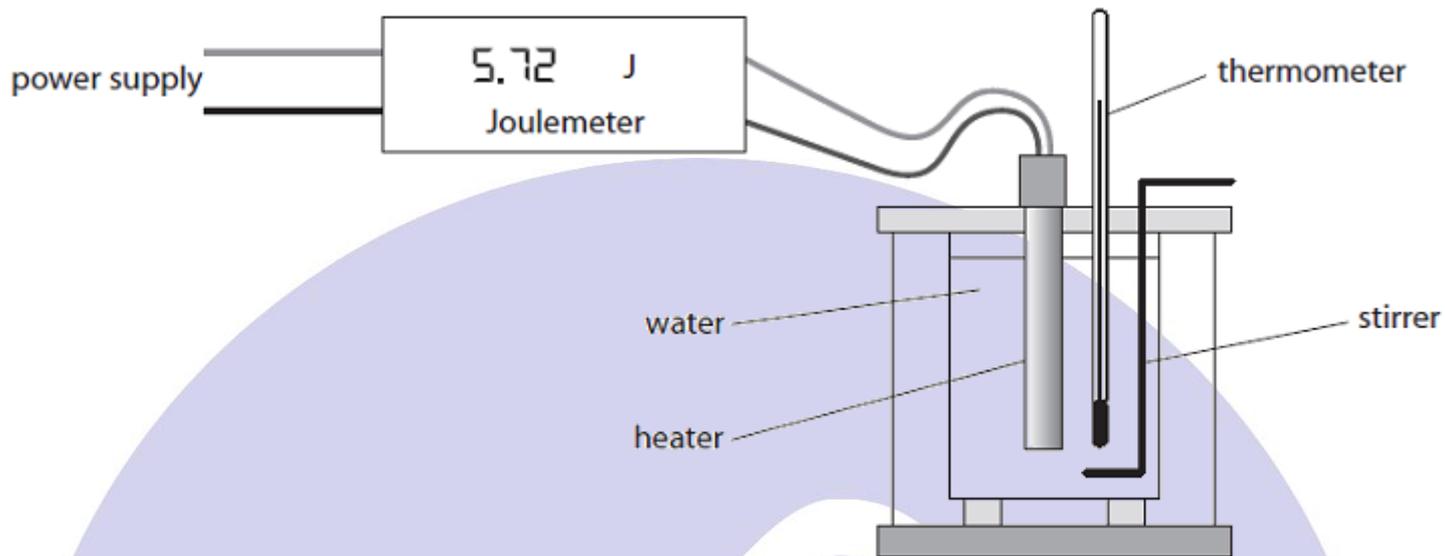


Figure 10

A student measures the initial temperature of the water.

The power supply is switched on for 10 minutes and then switched off.

Explain how the student should then obtain an accurate reading for the final temperature of the water, to be used in the calculation of the specific heat capacity.

(3)

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(Total for question = 3 marks)

Q2.

A student uses the apparatus in Figure 3 to determine the specific heat capacity of water.

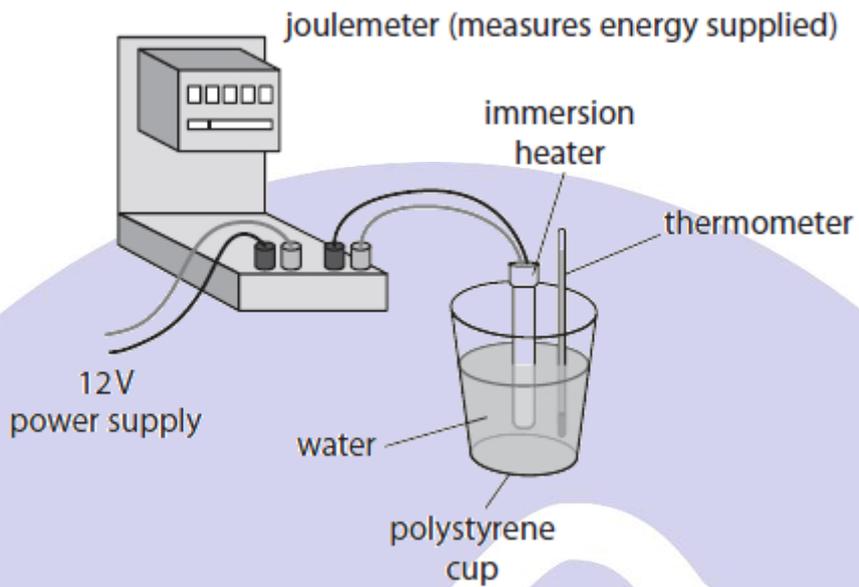


Figure 3

(i) State the measurements needed to calculate the specific heat capacity of water.

(4)

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(ii) State **two** ways that the apparatus could be adapted to improve the procedure.

(2)

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2

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(Total for question = 6 marks)

Q4.

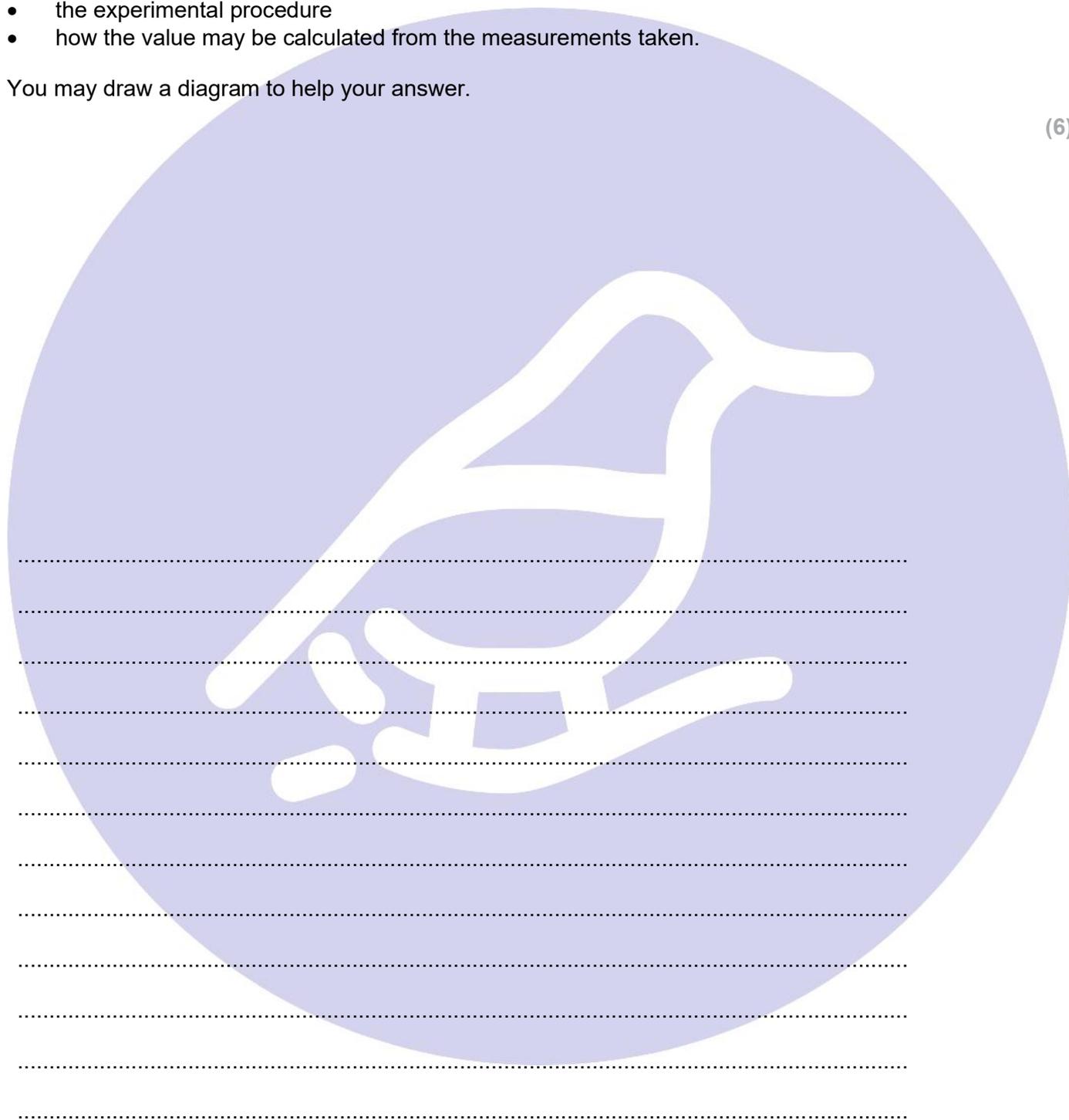
Describe an investigation to determine the value for the specific heat capacity of water.

Your answer should include details of

- the apparatus needed
- the experimental procedure
- how the value may be calculated from the measurements taken.

You may draw a diagram to help your answer.

(6)



(Total for question = 6 marks)

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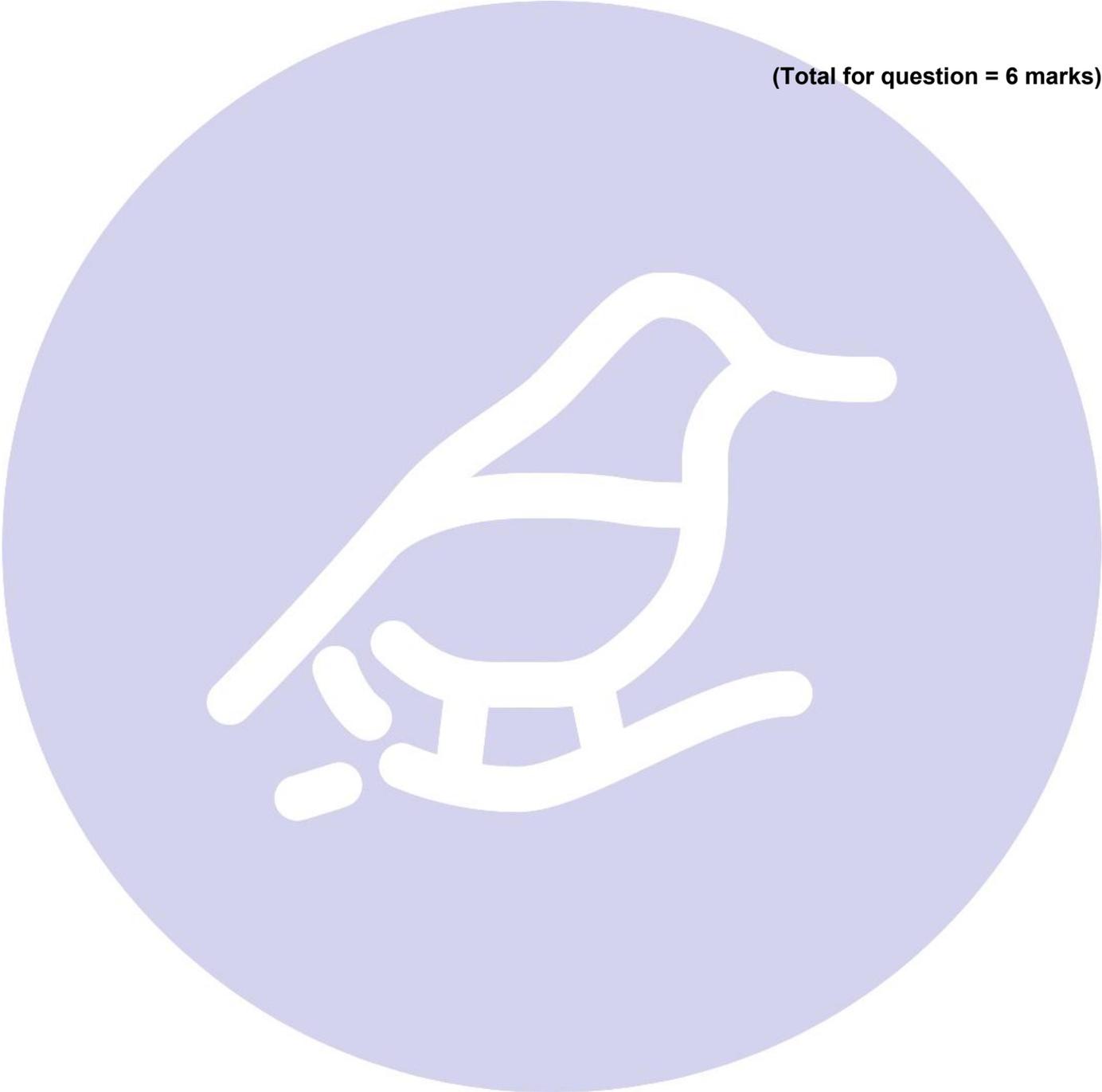
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(Total for question = 6 marks)



Q6.

* A student needs to determine the specific heat capacity of water.

Figure 12 shows some of the equipment the student uses.

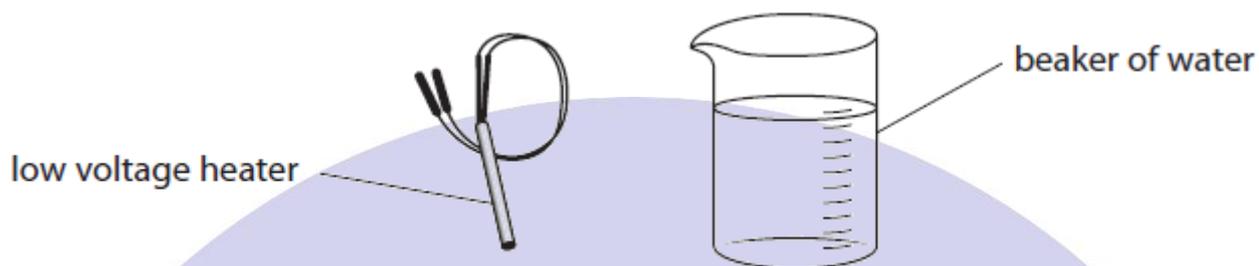


Figure 12

Describe the method the student should use to determine the specific heat capacity of water.

Your description should include, with reasons,

- any other equipment needed
- the measurements needed.

You may draw a diagram if it helps your answer.

(6)

