

Name:

"CPR" Quiz #5 - Enthalpy Heating Calculations

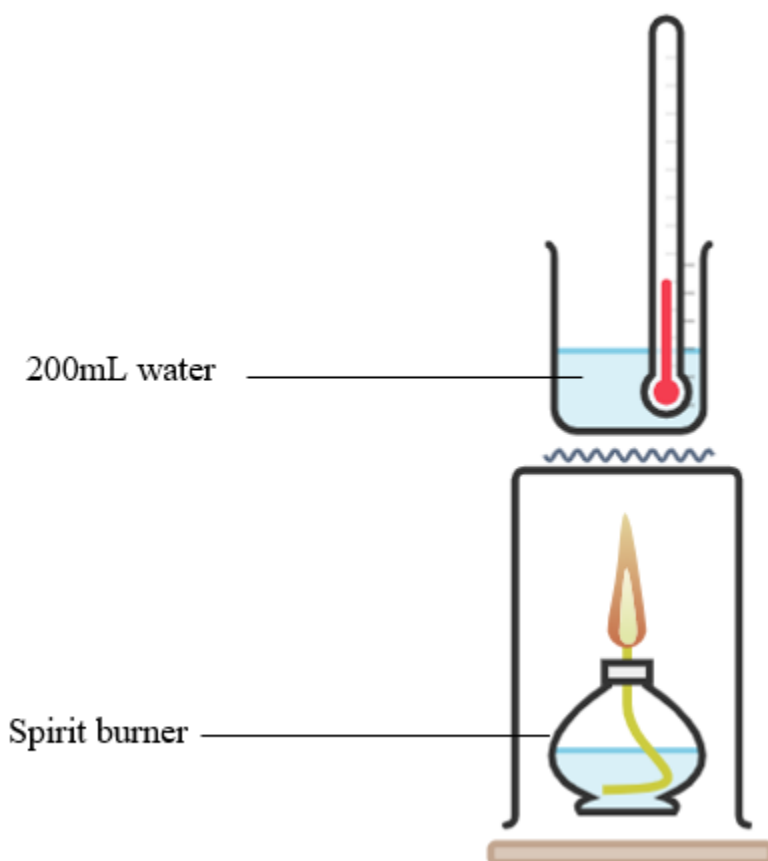
Attempt Description	Colour Highlighter or Pen	What does this tell you?
1st - Just your brain		What you already have in your long-term memory.
2nd - Just your notes/resources		What you understand, but not in your long-term memory.
3rd - With support from classmates or teacher		What you don't understand.

When it comes to studying effectively, make sure you start with the material that was the 3rd attempt colour because that is what needs the most work.

This question is from the 2020 Mock Exam.

Question 2d

In a classroom experiment, set up as in the diagram below, a student used a spirit burner to estimate the enthalpy change, $\Delta_c H^\circ$, for the combustion of ethanol. In this experiment, 0.437 g of ethanol was found to heat 200 mL of water by 11.5°C . $M(\text{C}_2\text{H}_5\text{OH}) = 46.0\text{ g mol}^{-1}$, $c = 4.18\text{ g}^{-1}\text{ }^\circ\text{C}^{-1}$



(i) Suggest an improvement that could be made to this experimental set up.

[Delete and write your answer.]

(ii) Calculate the value for the enthalpy of combustion obtained from this experiment.

[Delet and write your answer or insert a photo of your calculations.]

(iii) Compare the enthalpy of combustion value obtained from the experiment in d(ii) with the value you calculated in "CPR" Quiz #4 - Hess's Law Question 2c and account for the different between the two values.

[Delete and write your answer.]