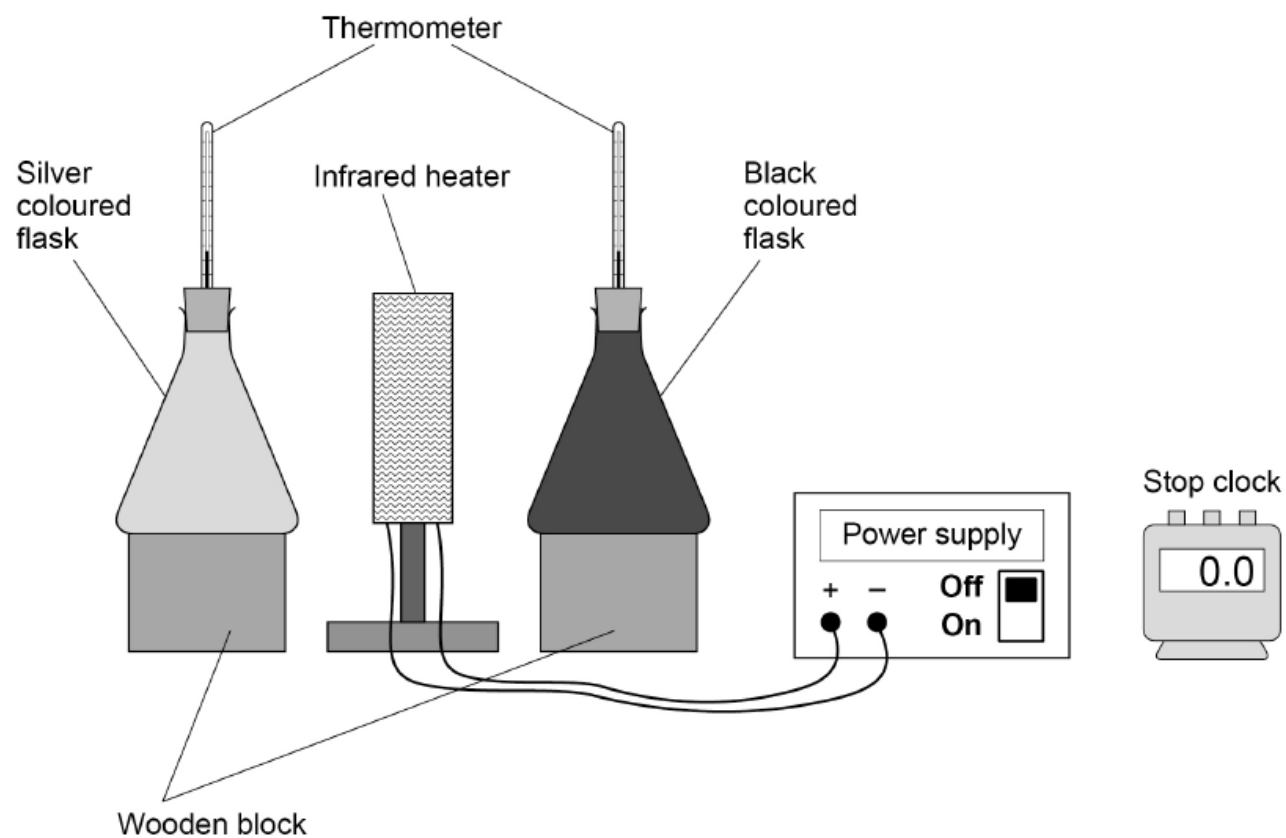


Black body radiations – GCSE Physics Paper 2**1. No.3(3.2_3.7)**

A student investigated how the colour of a surface affects the amount of infrared the surface absorbs.

Figure 9 shows the equipment used.

Figure 9



[1 mark]

0	3	.	3
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[4 marks]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

Table 1 shows the results.

Table 1

Colour of flask	Temperature increase in °C		
	Test 1	Test 2	Test 3
Black	19	17	27
Silver	10	12	11

0 3 . 4 Which one of the results for the black flask is anomalous?

[1 mark]

0 3 . 5 The anomalous result was caused by reading the thermometer incorrectly.

What should the student do with the anomalous result?

[1 mark]

0 3 . 6 Calculate the mean temperature increase for the silver flask.

[1 mark]

Mean temperature increase = _____ °C

03.7

What conclusion can be made from **Table 1**?**[1 mark]**Tick (✓) **one** box.

Both flasks absorbed the same amount of infrared during the five minutes.

☐

The black flask absorbed the most infrared during the five minutes.

☐

The silver flask absorbed the most infrared during the five minutes.

☐