

GCSE Physics B (Twenty First Century Science)
J259/01 Breadth in Physics (Foundation Tier)

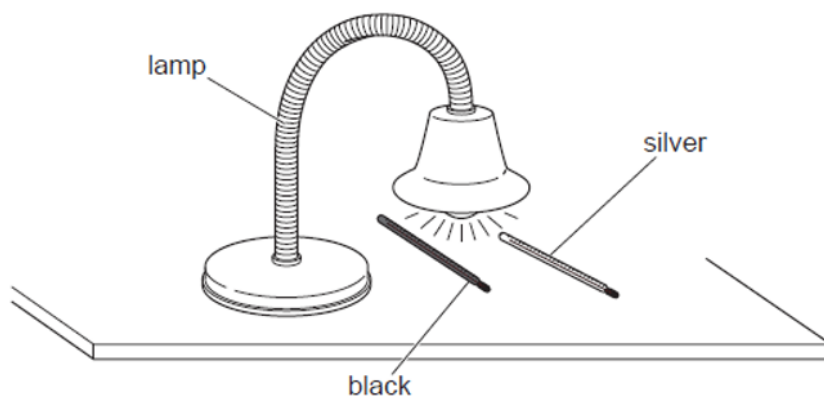
Question Set 11

1 Ben investigates how much radiation is absorbed by different coloured surfaces.

He uses two thermometers and a lamp.

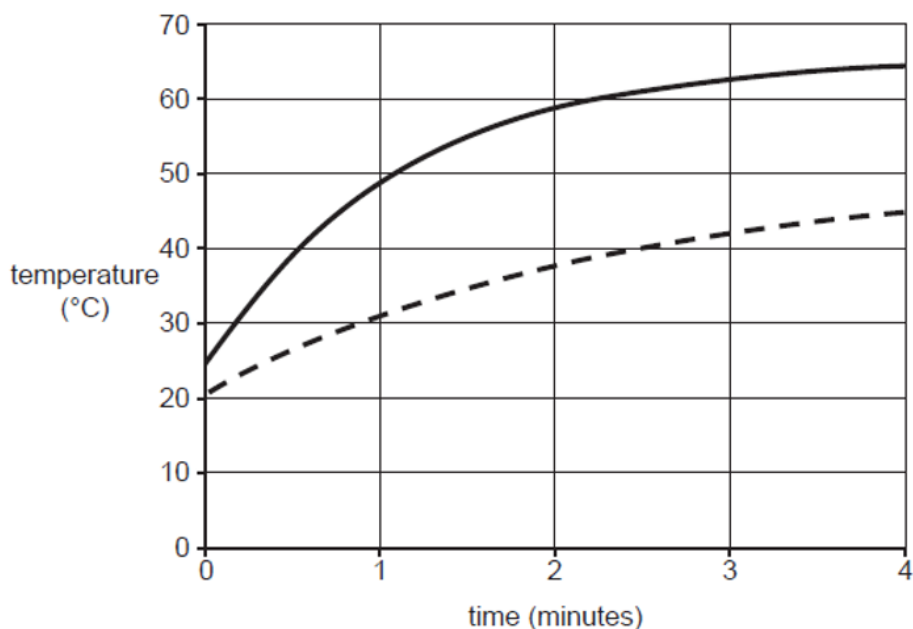
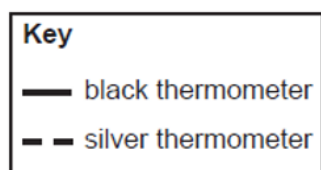
He paints one thermometer black and the other thermometer silver and places them under the lamp.

..



He records how the temperature of each thermometer changes over four minutes.

The graph shows his results.



(a) Describe **similarities** and **differences** between the results for the black thermometer and the silver thermometer.

(b) Explain the results of the experiment.

[2]

(c) Identify a weakness with Ben's method and suggest how it could be improved using information from the diagram or from the graph.

[2]

Total Marks for Question Set 11: 7

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