Radiation and Absorption

Organise the method used to measure Radiation and Absorption:

- Use the detector to measure the amount of infrared radiated from each surface.
- Draw a bar chart to show the amount of infrared radiated against the type of surface.
- Fill the cube with very hot water and replace the lid of the cube.
- Make sure that before a reading is taken the detector is the same distance from each surface.
- Place the Leslie cube on to a heat proof mat.

Precision

How might precision be affected and why by:

Changing an infra-red detector to:

A Digital Thermometer will …… because……..
……..

An Analogue Thermometer will …… because……..
……..

An Analogue Thermometer painted black will ……..
because……

Complete the table of the properties of different types of surface

Surface	Good Emmiter?	Good Absorber?	Uses
Black (Shiny)			
Black (Matt)			
White			
Silver			

Risk Assessment

Suggest what the risks are in this experiment. Describe what you should do to minimise the risks.

1.

2.

Plan
Without turning over (!) write a step by step plan for measuring radiation and absorption

Measuring the Radiation Emitted

Surface	Radiation Emitted
Matt Black	80
Shiny Black	72
White	35
Silver	12

Complete the bar chart