

Science A

SCA4/PU1.1

Secondary Data Sheet – Controlled Assessment Science A PU1.1 Solar Cells

Case study 1

A group of students did an investigation to find out whether the output voltage of a solar cell depends on the area of the solar cell exposed to light.

The students did the investigation three times and calculated a mean. The students used the same solar cell and lamp each time.

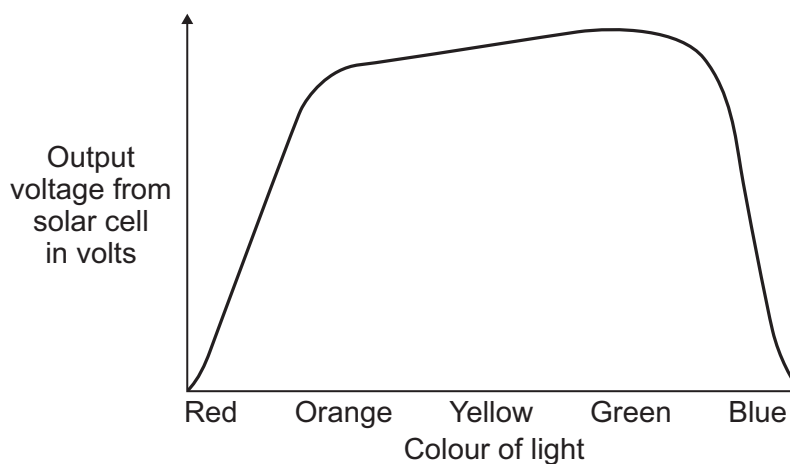
These are the students' results.

Area of solar cell exposed to light in cm ²	Mean output voltage in millivolts
10	80
15	110
20	150
25	200
30	230
35	270

Case study 2

A second group of students did an investigation to find out if the colour of light affected the output voltage from the solar cell.

The students recorded their results on a graph.



Turn over ►

Case study 3

Students in a laboratory did tests to find out if the output voltage from a solar cell depended upon the area of the cell exposed to light.

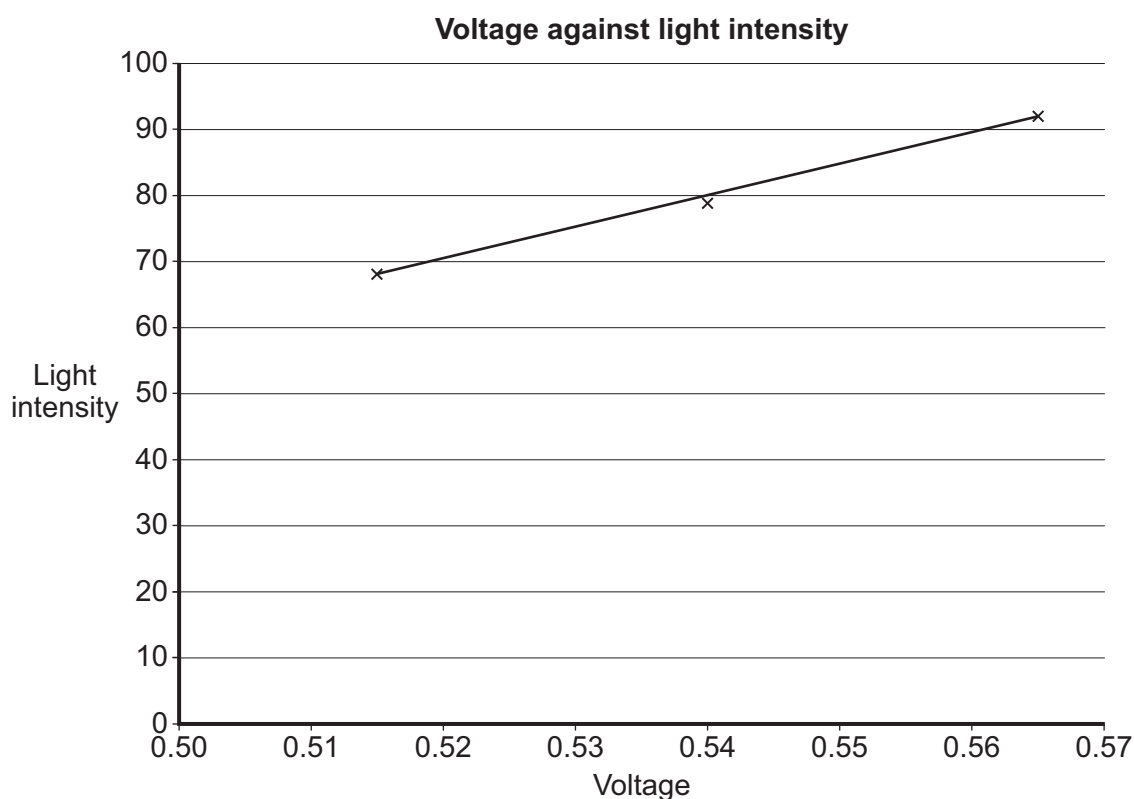
The students measured the output voltage twice for each area of the cell, and then calculated a mean.

These are the students' results.

Area of solar cell in cm ²	Output voltage in millivolts		
	Test 1	Test 2	Mean
20	21	16	19
40	30	24	27
60	40	37	39
80	70	65	68
100	160	160	160

Case study 4

A group of students has been investigating the effect of altering the light intensity falling on a solar cell. The students used three different light intensities and then plotted the graph below.



END OF DATA SHEET