

Question 24 (5 marks)

Design an experiment that tests the effect of opening a window on the blood oxygen saturation level of the people in a room.

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Independent variable	Blood oxygen saturation level. Time
Control	A normal person's blood oxygen saturation level
Variables to be kept constant and justification for keeping each constant.	<p>Variable 1: Age of the people in the room</p> <p>Justification: Different ages can affect the amount of oxygen taken in. For example an old man will take in less oxygen than a younger person therefore his blood oxygen saturation level will be less.</p>
	<p>Variable 2: Time (how long they are in the room)</p> <p>Justification: All the people must have been been in the room with the open window for approximately the same amount of time for valid results.</p>
Technology used to measure oxygen saturation in blood	Pulse oximeter