

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	no time
Control	people in a room with the window closed
Variables to be kept constant and justification for keeping each constant.	<p>Variable 1: the physical activity of the people</p> <p>Justification: each person in the room should be seated in the same position and not be active as this is likely to affect the results by having increased oxygen in the blood.</p>
	<p>Variable 2: the size^{proximity} of each person to another</p> <p>Justification: the people in the room should each be the same distance from one another. This is to ensure equal amounts of oxygen so other people's CO₂ is not affecting results.</p>
Technology used to measure oxygen saturation in blood	pulse oximeter