

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	Opening of the window (amount of air circulating around room)
Control	A sample of people in a room ^{of the same size} without windows (of the same size) using the same people
Variables to be kept constant and justification for keeping each constant.	<p>Variable 1: Use the same people</p> <p>Justification: different people may have different amounts of oxygen oxygen saturated in the blood and would render the ex experiment invalid because of this inconsistency.</p> <p>Variable 2: Using the same room at the same temperature.</p> <p>Justification: If the size of the room is changed, this may alter the amount of oxygen which is available to the people in the room. If a bigger room is used there is more oxygen, so the room needs to be kept the same same.</p>
Technology used to measure oxygen saturation in blood