

FEEDBACK

Diagram 1

Taken from a set of lecture notes, easily drawn by hand and is not irrelevant to the question. However, this diagram only addresses the question of how proton gradients are formed and would therefore be better suited to a different essay title. Rather than showing where proton pumping takes place, this diagram demonstrates how electrons move through the respiratory chain and relate to redox potential. A diagram covering both aspects of the title would be more effective.

Diagram 2

Also taken from lecture notes, easy to draw but only illustrates one part of the question by showing where proton gradients are generated.

Diagram 3

Synthesises all information in a simple way and does not feature in lecture notes. It obviates the need for three diagrams and demonstrates that the student is able to think beyond the basics. It is definitely the most effective, and it is useful to consider whether you could produce your own diagram in other contexts if nothing you find relates directly to the question.

Diagram 4

Is a synthesis of concepts from lectures illustrating how proton gradients are utilised mechanistically. This is not reproduced from lecture notes and should ideally complement diagram 3 in a response to this question.

Table

Although relevant to this question, this table, based on lecture notes, would take a long time to reproduce by hand and contains information not relevant to the essay question. Essential information that there are three proton pumping complexes and their associated ΔG values could be written directly in the essay text. Of the three items in this table, only two are relevant to the question.