**Electron transport chain – IB style questions**

1. Identify the process below which is used to make ATP in mitochondria?
   1. H+ ions (protons) are moved from hydrogen carriers to the intermembrane space by proton pumps.
   2. H+ ions (protons) move from the intermembrane space to the cytoplasm through ATP synthase
   3. Electrons move from one electron carrier to the next in the mitochondria inner membrane.
   4. H+ ions (protons) move from the intermembrane space to the matrix through ATP synthase

**(1)**

1. Which of the following is the best explanation of the role of oxygen in cellular respiration?
   1. Splitting of glucose into pyruvate.
   2. The oxidation of carbon compounds in the Krebs cycle
   3. Carrying hydrogen atoms to the mitochondria inner membrane as water.
   4. Accepting electrons from the electron transport chain in the inner membrane of the mitochondria.

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1. Outline the role of NADH and proton pumps in the process of aerobic respiration including chemiosmosis and oxidative phosphorylation.

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