

## Respiration

1. Apart from enzymes and glucose, what substance is required for Glycolysis to occur?
2. State the exact location of (i) Glycolysis  
(ii) The Krebs cycle  
(iii) The cytochrome system
3. Other than carbohydrate, name one alternative respiratory substrate.
4. State the net gain of ATP molecules from the breakdown of a glucose molecule to pyruvic acid.
5. Name the compound that combines with an unstable molecule to form citric acid.
6. How many carbon atoms are there in a molecule of citric acid?
7. Name the carrier that transfers hydrogen to the cytochrome system.
8. Explain why the cytochrome system does not function in anaerobic conditions.
9. Name the end products of anaerobic respiration in an animal and a plant cell.
10. Which stage of respiration releases most energy for use by the cell?
11. With reference to the Krebs cycle and the cytochrome system, explain how the structure of a mitochondrion is related to its function.