



# Definitions and Concepts for AQA Biology GCSE

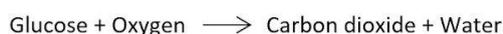
## Topic 4: Bioenergetics

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*Definitions in **bold** are for higher tier only*

*Definitions marked by '\*\*' are for separate sciences only*

**Aerobic respiration:** A form of respiration that uses oxygen to release energy from molecules like glucose - represented by the following word equation:



**Anaerobic respiration:** A form of respiration that releases energy from molecules like glucose without using oxygen - represented by the following word equation:



**Cellular respiration:** An exothermic reaction which is continuously occurring in living cells.

**Inverse proportion:** A relationship between two values where as one value increases, the other value decreases at the same rate.

**Inverse square law:** As the distance from a light source increases, the light intensity is inversely proportional to the distance squared - given by the following equation:

$$\text{Light intensity} \propto \frac{1}{(\text{Distance from the light source})^2}$$

**Limiting factor:** A factor that limits the rate of a reaction when there is not enough of it.

**Metabolism:** The sum of all the reactions in a cell or the body.

**Oxygen debt:** The amount of extra oxygen the body needs after exercise to react with the accumulated lactic acid and remove it from the cells. †

**Photosynthesis:** An endothermic reaction in which energy is transferred from the environment to the chloroplasts by light.

