**B4 Keywords**

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| **Keyword** | **Definition** |
| **Active site** | The part of an enzyme into which the reacting molecules fit, like a key in a lock. It is specific in shape. |
| **Active transport** | Molecules moved into cells in a process which requires energy as the molecules are moving against the concentration gradient. |
| **Aerobic respiration** | Respiration which requires oxygen. |
| **Amino-acids** | Small units which are built up into proteins. There are 20 essential amino-acids. |
| **Anaerobic respiration** | Respiration which does not require oxygen. |
| **Bacteria** | Single celled microbe that does not have a nucleus. |
| **Bioethanol** | A fuel produced by yeast fermenting plant material such as cane sugar. |
| **Biogas** | Methane gas produced by anaerobic digestion of animal manure. |
| **Catalysts** | Chemicals which speed up reactions but are not used up eg. Enzymes. |
| **Cell** | The basic structural unit of all living things. |
| **Cell Membrane** | The outer layer of animal cells which is partially permeable. |
| **Cell Wall** | The rigid outer layer of plant and bacterial cells. |
| **Cellulose** | A chemical found in plants which is described as fibre in our diet. |
| **Chlorophyll** | The green pigment found inside chloroplasts which absorbs energy from the sun. |
| **Chloroplasts** | Organelles in plant cells which contain chlorophyll. |
| **Concentrated** | A solution which contains a high level of solute to the amount of solvent. |
| **Cytoplasm** | A gel inside the cells of plants and animals in which many organelles are found. |
| **Diffusion** | The movement of substances from an area of high concentration to an area of low concentration. |
| **Dilute** | A solution which contain very little solute and lots of solvent. |
| **Enzymes** | Proteins which speed up chemical reactions  ( catalysts). |
| **Ethanol** | A product from anaerobic respiration in plants and yeast. |
| **Fermentation** | Chemical reactions in living organisms which release energy. |
| **Glucose** | A simple form of carbohydrate from which starch is built. |
| **Habitat** | The place where an organism lives. |
| **Insoluble** | Will not dissolve in water or other solvents. |
| **Lactic acid** | A product from anaerobic respiration in animals. |
| **Light Intensity** | The amount of light. |
| **Light meter** | A device for measuring light intensity. |
| **Limiting factor** | A factor that affects the rate of photosynthesis, Eg, light intensity and temperature etc. |
| **Lock and Key Model** | The way to describe how molecules fit into the active site of an enzyme. |
| **Mitochondria** | Organelles in both plant and animal cells where respiration takes place. |
| **Nitrate ions** | An ion is an electrically charged atom or group of atoms. The nitrate ion is NOз-. |
| **Nucleus** | The organelle which contains the chromosomes in plant and animal cells. |
| **Osmosis** | The diffusion of water through a partially permeable membrane. |
| **Partially permeable membrane** | A membrane which allows small but not large molecules through. |
| **Photosynthesis** | Chemical reactions in plants which convert carbon dioxide and water into glucose and oxygen. |
| **Polymers** | A material made up of lots of small repeating molecules. |
| **Protein** | Chemicals built up from small units called amino-acids. |
| **Quadrats** | An open square frame used to sample plants. |
| **Random** | Of no predictable pattern. |
| **Rate of Photosynthesis** | How quickly photosynthesis can occur. |
| **Respiration** | Chemical reactions inside the cell which release energy. |
| **Root hair cells** | Cell in plant roots through which minerals are absorbed. |
| **Samples** | A small part of something to represent the whole. |
| **Starch** | A type of carbohydrate which is built up of lots of glucose molecules joined together. |
| **Starch grains** | Granules of starch stored in plant cells. |
| **Sustainable** | Able to continue over long periods of time. |
| **Transect** | A straight line through a habitat along which plants or animals are sampled. |
| **Vacuole** | A fluid filled space found inside plant cells. |
| **Yeast** | A single celled fungus which is used in baking and brewing. |