

## Definitions and Concepts for Edexcel Biology IGCSE

### Topic 1: The Nature and Variety of Living Organisms

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

**Amoeba** - Protoctists that live in pond water and resemble animal cells.

**Cell** - The basic building block of all living organisms.

**Cell membrane** - A partially permeable barrier that surrounds the cell.

**Cell wall** - An outer, structural layer that surrounds some cells. In plant cells, it is made of cellulose. In fungi, it is made of chitin.

**Chlorella** - A protoctist that has features similar to plant cells e.g. chloroplasts.

**Chloroplast** - An organelle which is the site of photosynthesis.

**DNA** - A double-stranded polymer wound to form a double helix. It carries the genetic code.

**Eukaryotic cell** - A type of cell found in plants and animals that contains a nucleus.

**Human Immunodeficiency Virus (HIV)** - An infectious virus that weakens the immune system and can lead to AIDS (acquired immunodeficiency syndrome).

**Hyphae** - Long filaments of a fungus that contain many nuclei.

**Influenza virus** - An infection virus that causes influenza (the flu).

**Lactobacillus bulgaricus** - A rod-shaped species of bacterium used to produce yoghurt from milk.

**Mucor** - A multicellular fungus that has a hyphal structure.

**Mycelium** - A collection of thread-like hyphae in a fungus.

**Pathogens** - Microorganisms that cause infectious disease.

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

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**Plasmids** - Loops of DNA found in the cytoplasm of prokaryotic cells.

**Plasmodium** - Pathogenic protoctists that cause malaria.

**Pneumococcus** - A spherical, pathogenic bacterium that causes pneumonia.

**Prokaryotic cell** - A type of cell found in bacteria that does not contain a nucleus.

**Protoctists** - Microscopic single-celled organisms.

**Saprotrophic nutrition** - The mode of extracellular nutrition in which digestive enzymes are secreted onto the food outside the cell and the products of digestion are absorbed.

**Tobacco Mosaic Virus (TMV)** - A widespread plant pathogen affecting many species of plants which produces a mosaic pattern on the leaves. It infects chloroplasts and limits plant growth.

**Virus** - A non-living organism that can only reproduce inside host cells. Viruses have no cells, but possess a protein coat containing nucleic acids (DNA or RNA).

**Yeast** - A single-celled fungus.

