

Definitions and Concepts for Edexcel Biology IGCSE

Topic 1: The Nature and Variety of Living Organisms

*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.

