

Vocabulary - Chapter 5 – THE CELL

cell theory

The widely accepted belief that all living things are composed of individual cells along with the fact that all cells come from other cells

prokaryote

An organism in which the smaller structures (known as organelles) are not covered by a membrane

Example: bacteria

eukaryote

An organism in which the smaller structures (known as organelles) are covered by a membrane

Examples: plants, animals, and fungi

nucleus

The so-called “brain” of the cell which contains the genetic material known as DNA

organelles

Smaller organ-like structures found within cells, each with a specific function

Examples: nucleus, chloroplast, and mitochondria

microscope

Several types of scientific instruments used by scientists to observe small objects

Examples: light microscope, phase contrast microscope, electron microscope

cell membrane

The membrane that covers the outside of an individual cell selectively allowing materials to move in and out of the cell

cytoplasm

The contents of a cell

endoplasmic reticulum

An organelle in eukaryotic cells which functions to control the movement of proteins and fats

Golgi apparatus

Cell organelle which serves to “package” materials for export from the cell

vesicles

The “packages” formed by the Golgi apparatus

nuclear membrane

The outer covering of the nucleus

mitochondria

Cell organelle known as the “powerhouse” of the cell

chromosome

Long thread-like material containing DNA found in the cell nucleus

ribosome

Cell organelle used in the manufacture of proteins

chloroplast

Organelle in plant cells containing chlorophyll, the pigment necessary for photosynthesis

cell wall

The outer part of plant cells providing support

metabolism

Chemical reactions taking place in living things

Examples: digestion and respiration

diffusion

The movement of material from an area of greater concentration to an area of lesser concentration

Example: sugar in water

osmosis

The movement of a liquid through a semi-permeable membrane (greater concentration on one side)

Example: Plants moving water to overcome wilting

active transport

The process of living cells using energy to move substances

cell cycle

A continuous sequence of events in the life of a cell

interphase

The phase in the life of a cell between cell divisions

mitosis

That part of cell division in which the genetic material (chromosomes) is duplicated

cancer

A condition in which cells undergo rapid and abnormal growth often resulting in the death of the cells and organism

Examples: leukemia, melanoma, lung cancer