

Chapter 2 – Cell Structure and Function

- The chapter two terms are defined for you. You need to either give an example or tell what the term “IS” or “IS NOT”.

Microscope	Tool that makes things look larger than they really are.
Lens:	Piece of curved glass or other clear material that causes light rays to come together or spread apart as they pass through.
Cell:	Basic unit of structure and function in living things.
Cell Membrane:	Thin structure that surrounds cells.
Cytoplasm:	Gel-like substance inside the cell where most of the cell’s activities take place.
Nucleus/Nuclei:	Control center of a cell.
Nuclear Membrane:	Thin structure that surrounds and protects the nucleus.
Organelle:	Small structure inside the cytoplasm that does a special job.
Mitochondrion/Mitochondria:	Structure that releases energy for a cell.
Endoplasmic Reticulum:	Small network of tubes inside a cell that substances move along.
Ribosome:	Small, round structure that makes proteins.
Golgi Body:	Organelle that packages and sends materials to other places in the cell.
Vacuole:	Space in the cytoplasm that stores the different substances a cell needs to survive.
Lysosome:	Small, round structure that breaks down nutrient molecules and old cell parts.
Cell Wall:	Thick outer layer that surrounds the cell membrane of plants and some simple organisms.
Cellulose:	Carbohydrate, made up of many sugar molecules, that forms most of the cell wall of a plant.
Chlorophyll:	Green material in chloroplasts that is needed by plants to make food.

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Unicellular:	Containing only one cell.
Multicellular:	Containing more than one cell.
Pseudopod:	Fingerlike extension of the cytoplasm.
Guard Cell:	Cell that controls the size of a stoma.
Stoma/Stomata:	Tiny opening in the upper or lower surface of a leaf.
Diffusion:	Movement of materials from an area where molecules are crowded to an area where they are less crowded.
Passive Transport:	Movement of materials through a membrane without the use of energy.
Osmosis:	Movement of water through a membrane.
Active Transport:	Movement of materials through a membrane using energy.
Energy:	The ability to do work or cause change.
Photosynthesis:	Food-making process in plants and other organisms that uses sunlight.
Glucose:	A simple type of sugar.
Fermentation:	Process by which a cell releases energy from food without using oxygen.
Chromosome:	Cell part that determines what traits a living thing will have.
Chromatin:	Thread-like material that makes up a chromosome.
Mitosis:	Division of the nucleus.
Daughter Cell:	New cell produced by cell division.

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- Each section title is in the form of a question. To better understand what will be learned in each section there is a need to answer these questions.

2-1 What is a microscope? _____

2-2 What are cells? _____

2-3 What are the main cell parts? _____

2-4 What are other cell parts? _____

2-5 How do plant and animal cells differ? _____

2-6 Why do cells have different shapes? _____

2-7 How do materials move in and out of cells? _____

2-8 How do cells obtain energy? _____

2-9 How do cells produce new cells? _____

