**PARTS OF AN ANIMAL CELL AND THEIR FUNCTION**

**Nucleus** – The cell nucleus is an organelle that contains most of the cell’s genetic material. The nucleus regulates cell growth and metabolism.

**Nucleolus** – The nucleolus is made of RNA and proteins. It transcribes and modifies RNA.

**Lysosomes** – The lysosomes contain enzymes that break down biomolecules. They act as the cell’s waste disposal.

**Chromatin** – Chromatin are macromolecules made up of DNA, protein and RNA.

**Centrioles** – The centrioles help with cytokinesis. (The splitting of a cell)

**Cytoskeleton** – The cytoskeleton gives a cell its shape, and prevents if from deforming.

**Cytoplasm** – The cytoplasm is made up of cytosal, which is a gel-like substance. It is 80% water.

**Plasma Membrane** – Also known as the cell membrane, the plasma membrane is a selectively permeable wall that separates the cell interior from the outside environment.

**Ribosomes** – The ribosomes are made of protein and RNA. They convert genetic material into protein.

**Rough Endoplasmic Reticulum** – The rough endoplasmic reticulum manufactures enzymes and proteins.

**Smooth Endoplasmic Reticulum** – The smooth endoplasmic reticulum manufactures lipids, phospholipids, and steroids.

**Golgi Apparatus** – The golgi apparatus, also known as the golgi bodies, packages protein inside a cell, in preparation for secretion.

**Mitochondria**– The mitochondria are a cell’s power plants. They generate ATP.

**PARTS OF A PLANT CELL AND THEIR FUNCTION**

**Nucleus** – The cell nucleus is an organelle that contains most of the cell’s genetic material. The nucleus regulates cell growth and metabolism.

**Nucleolus** – The nucleolus is made of RNA and proteins. It transcribes and modifies RNA.

**Chromatin** – Chromatin are macromolecules made up of DNA, protein and RNA.

**Chloroplast** – The chloroplast contains chlorophyll and conducts photosynthesis.

**Cytoskeleton** – The cytoskeleton gives a cell its shape, and prevents if from deforming.

**Cytoplasm** – The cytoplasm is made up of cytosal, which is a gel-like substance. It is 80% water.

**Plasma Membrane** – Also known as the cell membrane, the plasma membrane is a selectively permeable wall that separates the cell interior from the outside environment.

**Cell Wall** – A rigid layer surrounding the plasma membrane, found in plant, fungi and bacteria cells.

**Ribosomes** – The ribosomes are made of protein and RNA. They convert genetic material into protein.

**Rough Endoplasmic Reticulum** – The rough endoplasmic reticulum manufactures enzymes and proteins.

**Smooth Endoplasmic Reticulum** – The smooth endoplasmic reticulum manufactures lipids, phospholipids, and steroids.

**Golgi Apparatus** – The golgi apparatus, also known as the golgi bodies, packages protein inside a cell, in preparation for secretion.

**Mitochondria**– The mitochondria are a cell’s power plants. They generate ATP.

**Plasmodesmata** – small channels in the cell wall, allowing transport and communication.

**Peroxisome** – organelles containing enzymes that contribute to metabolic reactions.

**Central Vacuole** – The central vacuole holds materials and wastes.