**SNC2D Task – Organelle Summary Name:**

Answer each question below in the space provided.

For each organelle that you labelled in the animal cell and plant cell diagrams:

* Indicate if it is found in animal cells only, plant cells only, or both
* Describe its function(s). **Ensure the function is specific and described in detail**. This will require research. I have completed the first one for you.

|  |  |  |  |
| --- | --- | --- | --- |
| **Organelle** | **Found in Animal cell,**  **Plant cell, or Both** | **Description**  **(What is it?)** | **Functions**  **(What does it do?)** |
| **cell**  **membrane** | both | * a thin layer that surrounds the cell and encloses the cell’s contents * made up of a phospholipid bilayer | * separates and protects the cell from its surroundings * keeps some materials out and holds some materials in * allows certain materials to pass through it in order to enter the cell or exit the cell |
| **cell wall** |  | * surrounds the cell membrane * is strong and fairly rigid * made up of a network of tough fibres made mainly of cellulose |  |
| **cytoplasm** |  | * also called the **cytosol** * a jelly-like fluid throughout the cell |  |
| **cytoskeleton** |  | * it is a network of various types of protein fibers * it is located where the cytoplasm comes in contact with the cell membrane |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Nucleus** |  | * the organelle that contains DNA * also known as the **information** **centre** of the cell |  |
| **nucleolus** |  | * it is a round body found inside the nucleus |  |
| **ribosomes** |  | * they are very small organelles * *free ribosomes* float within the cytoplasm * other ribosomes are attached to the   endoplasmic reticulum |  |
| **rough**  **endoplasmic**  **reticulum** |  | * a network of tubes and chambers connected to the nucleus * has ribosomes attached to it * appears rough or pebbled |  |
| **smooth**  **endoplasmic**  **reticulum** |  | * network of tubes and chambers * do not have ribosomes attached to it * appears smooth |  |
| **Golgi Body** |  | * also called **Golgi complex** or **Golgi apparatus** * made up of a stack of flattened pouches or sacs |  |
| **Vacuoles** |  | * a fluid-filled pocket * One large one in plant cells and many small ones in animal cells |  |
| **lysosomes** |  | * containers, or sacs, surrounded by membrane * contain enzymes * made in the Golgi body |  |
| **mitochondria** |  | * made up of a smooth outer membrane and an inner membrane that has many folds * also known as the **powerhouse** of the cell |  |
| **chloroplasts** |  | * oval-shaped organelle * contain a pigment called *chlorophyll* that gives plants their green colour |  |
| **centrioles** |  | * made of protein strand called *microtubules* that are arranged in a cylinder |  |
| **vesicles** |  | * are small spherical compartments |  |

Put a check in the appropriate column(s) to indicate whether the following organelles are in found in plant cells, animal cells, or both.

| **Organelle** | **Plant Cells** | **Animal Cells** |  | **Organelle** | **Plant Cells** | **Animal Cells** |
| --- | --- | --- | --- | --- | --- | --- |
| Cell Wall |  |  |  | Mitochondria |  |  |
| Vesicle |  |  |  | Nucleolus |  |  |
| Chloroplast |  |  |  | Nucleus |  |  |
| Centriole |  |  |  | Cell membrane |  |  |
| Cytoplasm |  |  |  | Central vacuole |  |  |
| Cytoskeleton |  |  |  | Ribosome |  |  |
| Endoplasmic reticulum |  |  |  | Vacuoles |  |  |
| Golgi body |  |  |  | Lysosome |  |  |