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| **Science 8**  **Cells** | **Name: Date:**  **Block:** |

There are two types of cells:

**Why study cells?**

* Cells 🡪 Tissues 🡪 Organs 🡪 Bodies
  + Our bodies are made up of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  + Cells are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

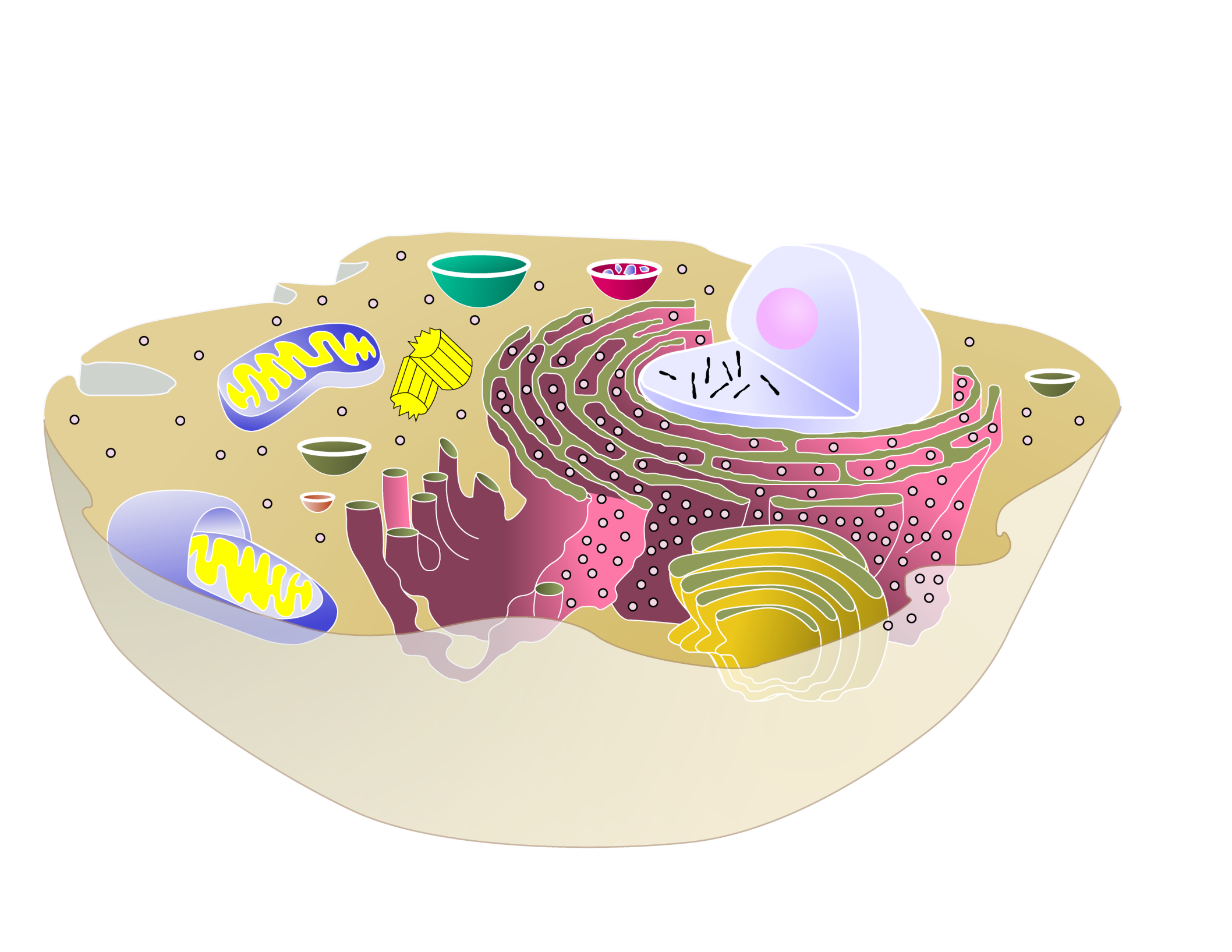
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| **The Jobs of Cells** |

Cells have 3 main jobs:



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| **Organelles** |

* There are different structures ( \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) that carry out the three main jobs.
* Organelles are like the cell’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.



* Organelle = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Everything in the cell is an organelle except for the ­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Cytoplasm**

* Jelly-like substance
* Maintains the structure of the cell
* Contains \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Cell membrane**

* Boundary of the cell
* Controls movements \_\_\_\_\_\_\_ and \_\_\_\_\_\_ of the cell.

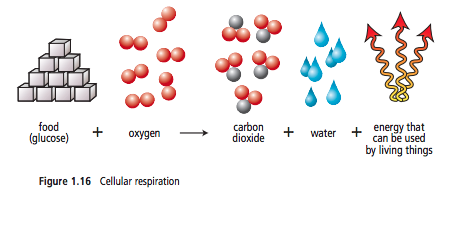
**Nucleus**

* Control center of the cell,.
* Contains genetic material called \_\_\_\_\_\_\_\_\_\_\_\_\_.
* Usually the easiest organelle to see under the microscope.
* Usually one per cell

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| **Job #1 : Produce energy** |

**Mitochondria**

* Powerhouse of the cell.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs here to release energy for the cell to use

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| **Job #2 : Make proteins** |

**Ribosomes**

* Small particles that makes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Found floating free in cytoplasm or attached to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Endoplasmic Reticulum**

* Highway of the cell
* Connected to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ around the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Proteins pass through the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Golgi Body**

* Looks like a stack of plates
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ proteins.
* Proteins are transported to and from the Golgi body by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Vesicles**

* Vesicles function like a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Carry \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in and out of and around the inside of the cell.

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| **Job #3 : Eliminate waste** |

**Vacuoles**

* Storage container for \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_ etc.
* Larger in plant cells

**Lysosomes**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the cell
* Contain digestive enzymes that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ wastes.

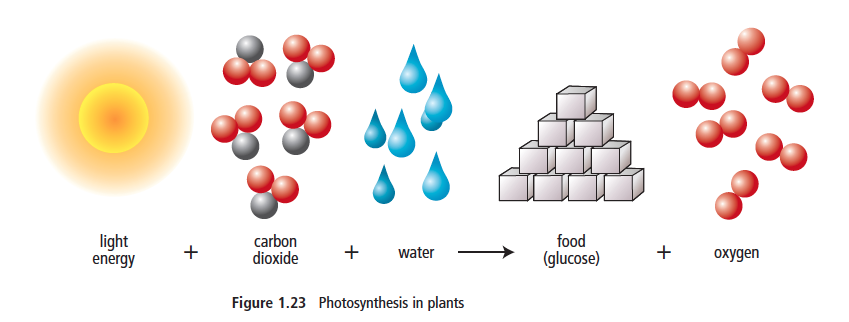
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| **Differences Between Plant and Animal Cells** |

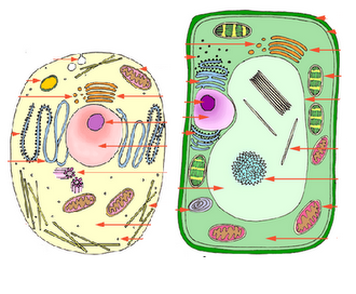
**Cell Wall**

* Found in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells
* Rigid, protective barrier
* Located \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the cell membrane

**Chloroplasts**

* Found only in \_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells
* Contains the green pigment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Site of food production during ­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.



**Vacuoles**

* Bigger in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells than in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells.