|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Eukaryote** | |  | **Prokaryote** | | |  | **Nucleus** | |
| organelles | |  | bacteria | | |  | DNA | |
| complex | |  | Eukaryote | | |  | Eukaryotes | |
|  | |  |  | | |  |  | |
|  | |  |  | | |  |  | |
| **Organelle** | |  | **Plasma membrane** | | |  | **Cytoplasm** | |
| organ | |  | around | | |  | organelles | |
| nucleus | |  | separates | | |  | inside | |
|  | |  |  | | |  |  | |
|  | |  |  | | |  |  | |
| **Chloroplast** | |  | **Cell wall** | | |  | **Central vacuole** | |
| plants | |  | protection | | |  | middle | |
| green | |  | strong | | |  | large | |
|  | |  |  | | |  |  | |
| **Ribosome** |  | | | **Endoplasmic reticulum** |  | | | **Golgi** |
| rough ER |  | | | rough |  | | | vesicle |
| RNA |  | | | smooth |  | | | changed |
|  |  | | |  |  | | |  |
|  |  | | |  |  | | |  |
| **Vesicle** |  | | | **Cytoskeleton** |  | | | **Flagellum** |
| move |  | | | shape |  | | | sperm |
| inside |  | | | transport |  | | | tail |
|  |  | | |  |  | | |  |
|  |  | | |  |  | | |  |
| **Lysosome** |  | | | **Mitochondria** |  | | | **Cilia** |
| digest |  | | | energy |  | | | many |
| acidic |  | | | powerhouse |  | | | around |
|  |  | | |  |  | | |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Diffusion** |  | **Osmosis** |  | **Active transport** |
| transport |  | diffusion |  | ATP |
| osmosis |  | solution |  | protein |
|  |  |  |  |  |
|  |  |  |  |  |
| **Isotonic solution** |  | **Hypertonic solution** |  | **Concentration gradient** |
| hypertonic |  | isotonic |  | isotonic |
| hypotonic |  | hypotonic |  | diffusion |
|  |  |  |  |  |
|  |  |  |  |  |
| **Phospholipid bilayer** |  | **Endocytosis** |  | **Exocytosis** |
| surrounds |  | move |  | export |
| separates |  | exocytosis |  | endocytosis |
|  |  |  |  |  |