|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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 |
|  |  |  |  |  |