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| --- | --- |
| Cellular Respiration | Cellular Respiration |
| Cellular Respiration | Lysosome |
| Prokaryote | Prokaryote |
| Prokaryote | Prokaryote |

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| --- | --- |
| Aerobic Process Uses Oxygen | Converts food energy into ATP Energy |
| Digestion, waste | Job of the mitochondria |
| Which type of cell  Unicellular | Which type of cell  No Nucleus |
| Which type of cell  Circular DNA | Which type of cell  Bacteria |

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| --- | --- |
| Prokaryote | Eukaryote |
| Eukaryote | Eukaryote |
| Eukaryote | Eukaryote |
| Cell Wall | Cell Membrane |

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| Which type of cell  Mostly multicellular  Some unicellular | Which type of cell  Nucleus |
| Which type of cell  Linear DNA | Which type of cell  Everything but bacteria |
| Outer boundary  Controls what enters and exits cell | Only in plants, Gives structure and protection |

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| --- | --- |
| What organelles are in all cells | Only found in Eukaryotic cells |
| Only found in Prokaryotic cells | Only found in plants |
| Chloroplast | Chloroplast |
| Chloroplast | Chloroplast |

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| --- | --- |
| Nucleus, membrane bound organelles, linear DNA | Cystoplasm  Cell membrane  DNA, Chormosome, Genetic material, ribosomes, lysosome |
| Chloroplast, cell wall, large central vacuole | Circular DNA |
| Converts energy, only in plants | Pancakes |
| Converts radiant energy from the sun into chemical energy glucose | Responsible for photosynthesis |

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| Photosynthesis | Cellular Respiration |
| Photosynthesis | Cellular Respiration |
| Vacuole | Vacuole |
| Vacuole | Cytoplasm |

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| Energy conversion that begins with glucose | Energy conversion that begins with CO2, Carbon Dioxide |
| Stores water and nutrients | Larger in plants |
| Holds all of the organelles in place | Smaller in animals |

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| Cytoplasm | Cytoplasm |
| Mitochondria | Mitochondria |
| Mitochondria | Mitochondria |
| Nucleus | Mitochondria |

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| Gel/Jelly substance in all cells | In all cells, aqueous solution |
| Converts food energy to ATP energy | Energy factory |
| Responsible for this process of cellular respiration |  |
| Responsible for the aerobic (uses oxygen) process in cells | Only found in Eukaryotes |

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| Nucleus | Nucleus |
| Ribosomes | Photosynthesis |
| Chloroplast | Photosynthesis |
| Aerobic | Anaerobic |

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| Control Center, The Brain | Holds the genetic material, DNA, Chromosomes |
| The process that occurs inside the Chloroplast | Proteins  Amino Acids  Polypeptides |
| Anaerobic (no oxygen) process | Responsible for energy conversion inside the plant cell |
| Does not use oxygen  Photosynthesis in the chloroplast | Uses Oxygen (Cellular Respiration in the mitochondria) |

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| Something all cells have in common |  |
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|  | Convert food to energy to sustain life. |