Vocabulary – Essential Standards 8.L.5.1

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| **Word** | **Definition** |
| Fuel | A material that releases energy when it burns. |
| Thermal Energy | The total energy of all the particles of an object. |
| Cells | The basic unit of structure and function in living things. |
| Prokaryotic Cells | An organism whose cells lack a nucleus and some other cell structures. Single celled organism |
| Eukaryotic Cells | Multi celled organism |
| Organelle | A tiny cell structure that carries out a specific function within a cell. |
| Mitochondria | Rod shaped cell structures that convert energy in food molecules to energy the cell can use to carry out its functions. |
| Mitosis | The stage of the cell cycle during which the cell’s nucleus divides into two new nuclei and one copy of the DNA is distributed into each daughter cell. |
| Photosynthesis | The process by which plants and some other organisms capture the energy in sunlight and use it to make food. |
| Autotroph | An organism that makes its own food. |
| Heterotroph | An organism that cannot makes its own food. |
| Chlorophyll | A green pigment found in the chloroplasts of plants, algae, and some bacteria. |
| Chloroplast | A structure in the cells of plants and some other organisms that captures energy from sunlight and uses it to produce food. |
| Fermentation | The process by which cells break down molecules re release energy without using oxygen. |
| Alcoholic fermentation | Occurs when yeast and some other single-celled organisms break down sugars. (alcohol is one of the products) |
| Lactic acid fermentation | When cells run out of oxygen, an acid (lactic) supplies the cells with energy. This causes muscles to feel weak and sore. |
| Cellular Respiration |  |
| ATP |  |
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