**Unit 2**

**Earth Science: Living Organisms**

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| Standard 7.L.1 | Vocabulary |  |
| **7.L.1.1 -Compare/Contrast Uni. Organisms**  I can compare the structures and life functions of single-celled organisms that carry out the basic functions of life, including:  Euglena • Amoeba • Paramecium • Volvox | Cells  Prokaryotic | Within cells, many of the basic functions of organisms—such as extracting energy from food, getting rid of waste, movement and secreting waste—are carried out. The way in which cells function is similar in all living organisms. Even the simplest organisms have parts which enable them to move, take in food, to reproduce and to detect the environment they are in. Euglena-moves by a flagellum, know for a unique feature-- an eye spot, some contain chlorophyll and are common in fresh water. The amoeba moves by cytoplasmic streaming, surrounds food and engulfs it using pseudopods. Paramecium is the most complex and specialized of the protists. It moves by cilia. Volvox is a colony of ciliates, some containing chlorophyll. |
| **7.L.1.2 -Plant vs. Animal Cells**  I can compare the structures and functions of plant and animal cells, including major organelles. | Eukaryotic  Multicellular  Organelles  Cytoplasm  DNA  Cell wall  Cell membrane  cytoskeleton  Nucleus  Ribosomes  Endoplasmic reticulum  Mitochondria  Chloroplasts  Golgi Complex  Lysosomes  Vesicle  Vacuole  Diffusion  Osmosis  Endocytosis  Exocytosis  Photosynthesis  Cellular respiration | All living things are composed of cells, from just one to many millions, whose details usually are visible only through a microscope. A cell is the smallest part of any living thing. There are many parts of a cell. Each part of a cell completes a certain function for the cell. These parts are found in plant and animal cells.  • Cell Membrane - forms the outer boundary of the cell and allows only certain materials to move into or out of the cell  • Cytoplasm - a gel-like material inside the cell; it contains water and nutrients for the cell  • Nucleus - directs the activity of a cell; it contains chromosomes with the DNA  • Nuclear Membrane - separates the nucleus from the cytoplasm  • Mitochondria - break down food and release energy to the cell  • Vacuoles - are storage areas for the cell  Some organelles are found only in Plant cells. These organelles are:  • Cell Wall - provides structure to the plant cell  • Chloroplasts - contain chlorophyll that is make food for the plant cell |
| **7.L.1.3 -Levels of Organization**  I can summarize the organization of multi-cellular organisms from cells to tissues to organs to systems to organisms. | Tissue  Organ  Organ System  Organism  Structure  Function | Different body tissues and organs are made up of different kinds of cells. The cells in similar tissues and organs in other animals are similar to those in human beings but differ somewhat from cells found in plants. Important levels of organization for structure and function include cells, tissues, organs, organ systems, whole organisms and ecosystems. Specialized cells perform specialized functions in multi-cellular organisms. Groups of specialized cells cooperate to form a tissue, such as muscle. Different tissues are in turn grouped together to form larger functional units, called organs. Organs group together to form systems and systems group together to form organisms. Each type of cell, tissue, organ, organ system has a distinct structure and functions that serve the organism as a whole. |
|  | Fermentation  Chromosomes  Mitosis  Cytokinesis |  |