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| M. Angileri | **6th grade science** | | **Lesson Plans 10-21-19 anatomy of a Cell #1** | | | | |
| NGSS Standards | **MS- LS 1-2**  S & E practices  DCI LS1A  CCC | | Develop and use a model to describe the function of a cell as a whole and ways parts of a cell contribute to the function.  **Developing and Using Models:** Develop and/or use a model to predict and/or describe phenomena.  MS-LS 1-2  **Structure and Function:** Within cells, special structures are responsible for particular functions, and the cell membrane forms the boundary that controls what enters and leaves the cell.  **Structure and Function:** Complex and microscopic structures and systems can be visualized, modeled, and used to describe how their function depends on the relationships among its parts; therefore, complex natural structures/systems can be analyzed to determine how they function. | | | | |
| Vocabulary: | | **Multicellular:** An organism made up of more than one, often different cells.  **Cell:** Basic structural and functional unit in living organisms.  **Cell Theory:** Theory that states the cell is the basic unit of all living things.  **Unicellular:** An organism made up of one cell.  **Organelle:** Membrane-bound structure inside a cell that has a particular function,  **Prokaryote:** Organism whose cells lack a nucleus and membrane-bound organelles.  **Eukaryote:** Organism whose cells have a true nucleus and membrane-bound organelles.  **Nucleus:** The dense area in a eukaryote cell that contains nucleic acids, the chemical instructions that direct the cell’s activities. (A membrane bound structure in eukaryotic cells that contains DNA)  **Chloroplast:** The structure of the plant cells in which food is made. (Membrane bound organelle in plants that tis the site of photosynthesis)  **Cell Membrane:** A lipid barrier that encloses the cytoplasm and controls what enters and exits the cell.  **Cell Wall:** The tough protective barrier that surround the outer membrane of some cell types.  **Mitochondria:** Organelle in cytoplasm of eukaryote cells that functions in energy production, the power factory of the cell. | | | | | |
| Clarification Statement: | | Emphasis is on the cell functioning as a whole system and the primary role of identified parts of the cell, specifically the nucleus, chloroplasts, mitochondria, cell membrane, and cell wall. | | | | | |
| Essential Question | | **What is the smallest thing that can be considered living?**  **How can a single-celled organism sustain life?** | | | | | |
|  | | **Monday** | | **TUESDAY** | **WEDNESDAY**  **½ day Substitute** | **THURSDAY** | **FRIDAY**  **SST Substitute** |
| Content Objective: | | SW demonstrate application of how complex and microscopic structures and systems can be visualized by carrying out the investigation and discussion with 70% accuracy | | SW demonstrate analysis of how complex and microscopic structures and systems can be visualized by carrying out the investigation and discussion with 70% accuracy. | SW demonstrate knowledge of the function of a cell as a whole and ways parts of a cell contribute to the function by defining vocabulary terms with 70% accuracy. | SW demonstrate knowledge of the function of a cell as a whole and ways parts of a cell contribute to the function by identifying parts of the school that are like a cell with 70% accuracy | SW demonstrate comprehension of the function of a cell as a whole and ways parts of a cell contribute to the function by summarizing information using a Guided Reading. |
| Language objective | | SW write to describe observations of complex and microscopic structures and systems using the graphic organizer with 70% accuracy. | | SW justify how complex and microscopic structures and systems can be visualized using Claim Evidence Reasoning writing with 70% accuracy. | SW compare how complex and microscopic structures and systems can be visualized using sentence frames with 70% accuracy. | SW write/collaborate to give examples of how parts of a school and function of a cell as a whole and ways parts of a cell contribute to the function using the graphic organizer with 70% accuracy. | SW answer questions about the function of a cell as a whole and ways parts of a cell contribute to the function using sentence frames with 70% accuracy. |
| In class today | | Anatomy of a cell vocabulary predictions  Microscope Euglena, Paramecium, Ameoba  Review Phenomena Chart  Homework I & G Practice | | Survey questions  CER What are Living Things made of | Vocabulary Anatomy of a cell  APK Anatomy of a cell | Hook: Cell Organelle Scavenger Hunt  Open Ended Response questions | Read and Discuss “What is Life” ***From Bacteria to Biology*** Text  Pages 16-23  Guided Reading and Review worksheets |

1. Assessment Boundary: Assessment of organelle structure/function relationships is limited to the cell wall and cell membrane. 2. Assessment of the function of the other organelles is limited to their relationship to the whole cell.

3. Assessment does not include the biochemical function of cells or cell parts.

**Guiding Questions:**

What are living things made of?

What does a Cell need to live?

How do body systems work together?

How do organisms respond to stimuli?