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| M. Angileri | **6th grade science** | | **Lesson Plans 11- 11-19 anatomy of a Cell #4** | | | | |
| 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 | | **How can a single-celled organism sustain life?** | | | | | |
|  | | **Monday** | | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** |
| Content Objective: | | SW demonstrate comprehension of how special structures are responsible for particular functions during photosynthesis by illustrating the processes with 70% accuracy. | | SW demonstrate comprehension of how to describe the function of a cell as a whole and ways parts of a cell contribute to the function by interpreting information with 70% accuracy. | SW demonstrate application of ways to describe the function of a cell as a whole and ways parts of a cell contribute to the function by carrying out the explore 1 activity with 70% accuracy. | SW demonstrate analysis of Cells and their parts by testing with 70% accuracy. | SW demonstrate knowledge of how in multicellular organisms, the body is a system of multiple interacting subsystems by recognizing the organizational structure. |
| Language objective | | SW write to illustrate of how special structures are responsible for particular functions during photosynthesis using content specific vocabulary with 70% accuracy. | | SW read/write to recount of how special structures are responsible for particular functions using sentence starters with 70% accuracy. | SW write/speak to draw conclusions about how special structures are responsible for particular functions using the Explore activity with sentence frames. | SW write to answer questions about of how special structures are responsible for particular functions in cells using the common assessment with 70% accuracy. | SW write/ speak to make connections about of how in multicellular organisms, the body is a system of multiple interacting subsystems using general academic vocabulary. |
| In class today | | Photosynthesis  Study Guide | | Name that Organelle | Explore 1 | CA | APK: Which Comes first  Hook: Levels of organization |

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?