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| Teachers: Ms. Bradshaw, Dr. Jeffery, Mr. Melchor, Ms. Nieto, Ms. Stroman |
| **Date: 4/30/2015** |
| **Subject / grade level: 6th Grade Science** |
| **Materials:**   1. Video clip of 6 Classifications of Kingdoms 2. Prepared Slides 3. Cell Venn Diagram 4. Cell Survey Lab Student Worksheet 5. Pencils 6. Sharpeners 7. Microscopes |
| **TEKS:**  (12)   The student is expected to:  (B)  recognize that the presence of a nucleus determines whether a cell is prokaryotic or eukaryotic;  (D)  identify the basic characteristics of organisms, including prokaryotic or eukaryotic, unicellular or multicellular, autotrophic or heterotrophic, and mode of reproduction, that further classify them in the currently recognized Kingdoms.  **Lesson Objective:**  The Students will have a better understanding of the differences and similarities of prokaryotic and eukaryotic cells. The students will how the types of cell fit in with the six kingdoms. |
| **ENGAGEMENT: Six Kingdoms of Classification (2 minutes, 29 seconds)**   1. Ask students: What are the six kingdoms of life? 2. Provide students with the Cell Venn Diagram handout. 3. Play a clip of Six Kingdoms of Classification on YouTube. https://youtu.be/u90WvBZe-tY 4. Ask probing questions: From the video, how are Prokaryotic and Eukaryotic cells similar? How are Prokaryotic and Eukaryotic cells different?   **Transition Statement: In the next activity, we will further explore Prokaryotic and Eukaryotic cells.** |
| **EXPLORATION: (10-15 minutes)**   1. Provide students with the Cell Survey Lab Student Worksheet 2. Provide slides containing samples of Prokaryotic and Eukaryotic cells. 3. Allow students to observe the different types of cells under the microscope. 4. Instruct student draw a picture of the cell, identify if the cell is prokaryotic or eukaryotic, define which kingdom the cell belongs to and to provide evidence to support the kingdom you chose. 5. After the students have gone through each of the five stations ask essential questions.   **Essential Questions: How are these cells similar? How are they different**?   1. Students will explain their findings and how the cells differ from each other.   **EXPLANATION: (5-10 minutes)**   1. Students will explain the difference between Prokaryotic and Eukaryotic cells (teacher will clarify any misconceptions/terminology, etc. ) 2. Which cells had a nucleus? 3. Which cells did not have a nucleus? 4. What examples did we see of Prokaryotic cells? 5. What examples did we see of Eukaryotic cells? 6. How could we decide what kingdom each cell belonged to? |
| **ELABORATION: CARD SORTS (10 minutes)**   1. Pass out the Card Sorts 2. Students will match and sort according to cell type. Eukaryotic or Prokaryotic cells. 3. Discuss findings with students. |
| **EVALUATION: Exit (5 minutes)**   1. Pass out exit slip handout. 2. Ask students to complete the exit slip before they leave the classroom. 3. Give students about 5 minutes to work individually.   **Exit Ticket:** Provide students with the exit slip handout. Have students name two new facts they learned, one fact they knew already and questions they still have. |