**Lesson Title: Meiosis and Mitosis**

**Unit: Growth and Development (5)**

TEKS: (11)(b) The student will describe and explain cell differentiation in the development of organisms.

OBJECTIVES

The student shall be able to:

1. Define mitosis.
2. Define meiosis.
3. Analyze function of mitosis and meiosis in cell differentiation.

TEACHING MATERIALS, TOOLS, AND EQUIPMENT

PPT: Mitosis and Meiosis

HO: Notes on mitosis/meiosis (1 ea.)  
 PJ: Posters for phase illustrations (1 per group)

TEACHING PROCEDURE

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| Interest Approach/Anticipatory Set | Teacher Notes |
| Have 2 students come to the front of the room to represent the 2 cells created in mitosis. Then have 4 students come to the front of the room to represent the 4 cells created in meiosis. Keep the students at the front of the room while briefly discussing the difference between mitosis and meiosis.  TRANSITION – Today, we are discussing the steps and mitosis and steps of meiosis. We will cover all of the phases of each and learn new vocabulary that go along with the topic. We will see how these functions relate to cell differentiation. Students will have a fill in the blanks notes packet to fill in along with lecture for a daily grade. Active lecture will take place. When the teacher asks a question, if a student participates, the teacher will throw a piece of candy to the student as an incentive. | Student demonstration of mitosis and meiosis  Active lecture with candy |

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| --- | --- |
| Teaching Plan and Strategy / Presentation of New Material | Teacher Notes |
| Mitosis will be described in detail including all of its phases. Meiosis I and II will be described in detail including all of its phases as well. New vocabulary terms relating to each process will also be identified and reinforced throughout the lesson. Videos of mitosis and meiosis processes will be shown to reinforce the information.  After lecture, students will get into groups and create posters illustrating the phases and description of mitosis or meiosis. Descriptions of each process and each phases will be included. | Lecture, ask questions, and show videos as needed.  Put into groups for poster activity |

ENGAGEMENT

Students are engaged with active lecture involving the candy throwing. They are also engaged with filling in their notes as we move along with the lecture and creating posters illustrating mitosis and meiosis.

EVALUATION

Students will be evaluated through question and answer and also at the end of the lesson when they are able to get into groups and create the phases of mitosis and/or meiosis posters.

ADDITIONAL MATERIALS

Websites:  
<http://biology.clc.uc.edu/courses/bio104/mitosis.htm>

<http://biology.clc.uc.edu/courses/bio104/meiosis.htm>

Videos:  
<http://www.youtube.com/watch?v=2WwIKdyBN_s&feature=related>

<http://www.youtube.com/watch?v=VlN7K1-9QB0>

<http://www.youtube.com/watch?v=D1_-mQS_FZ0&NR=1>

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