

<Learning about the Parts of Cells>

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Overall Goal for the Lesson:

To familiarize students with parts of a cell.

Description of classroom, grade level, and students:

This is 5th grade science, and there are 20 kids in the classroom.

Student Objectives for the lesson. (Given a condition, the students will, to what level). **Given a diagram of a cell and the parts of it, the students will be able to correctly identify 9 out of 10 parts onto the cell's structure.**

Length of Lesson: (minutes, number of class periods, or days or weeks needed).

45 to 50 minutes long each day and each class. This lesson is to be carried out over two class days with the first being where they learn about the cell and where the parts are located and the second day being where they actually place the parts of the cell onto the cell so they can learn through doing.

Schedule of Activities: (Break down your activity into a timeline of events. Focus on what students will be doing and what teachers will be doing during each part of the activity.)

Day 1:

- Allow students and teacher to read together from the textbook about a cell. This takes 15 to 20 minutes.
- Have a smarboard available for the teacher to project a big cell onto it that points out each part of the cell. This takes about 10 minutes.
- Now have the students go to the microscopes to discover the parts of a cell on their own learning time. This should take the rest of the class period, about 20 minutes.

Day 2:

- Use the smartboard diagram where a cell is missing the labels. Have the students as a class label the cell by dragging the labels to their designated positions. 10 minutes.
- Pass out the materials necessary for the students to make a cell with a partner. This should only take about 5 minutes.
- After the last step is done pass out a cell handout where the students can refer back to for where the cell parts are located. Only a few minutes should be allotted for this.
- Give the students the proper amount of time to make their cells with the materials provided. This should take about 30 minutes.
- Observe the entire room and walk around just in case the students need guidance.

PASS Content Standards Addressed (Copy and Paste from:
<http://sde.state.ok.us/Curriculum/PASS/default.html>)

Process Standard 2: Classify - Classifying establishes order. Objects, organisms, and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.

1. Classify a set of objects, organisms, and/or events using two or more observable properties (e.g., simple dichotomous keys).
2. Arrange objects, organisms and/or events in serial order (e.g., least to greatest, fastest to slowest).

PASS Instructional Technology Standards (Copy and Paste from:
<http://sde.state.ok.us/Curriculum/PASS/default.html>)

Standard 5: The student will demonstrate knowledge of technology research tools.

1. Use content-specific tools, software, and simulations (e.g., environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research.

Assessments: How will these activities be assessed? (Go back to your objectives, what will the students do? Make sure that each objective is paired to an assessment measure that allows students to show it).

We assess to see if they have labeled the cells correctly through observation and whether or not they have correctly made their cells with their partners.

Accommodations: How might the lesson need to be adapted for students with special needs?

A student with visual impairments can be provided with bigger cell labels so they can see more easily. A student that has difficulty working with a partner can work on their own.

Materials Needed: Go through each activity and identify what items (both technology and not) are needed to complete this lesson. Include a breakdown according to individual student or student groups. Include materials that need to be created as well.

1. smartboard
2. textbook
3. handout with the cell
4. cell materials for making one which include:
 - a. sponge
 - b. play dough
 - c. toothpicks
 - d. labels
 - e. tape
 - f. glue
 - g. pipe cleaners
 - h. glitter
 - i. buttons
 - j. markers
 - k. scissors