

**Project FOCUS
Best Lessons
FIFTH GRADE**

Title of Lesson: Paper Plate Cells

Theme: Life Science

Unit Number: 1 **Unit Title:** Cells and Microorganisms

Performance Standard(s) Covered (enter codes):

S5L3a

S5L3b

S5CS3

Enduring Standards (objectives of activity):

Habits of Mind

- Asks questions
- Uses numbers to quantify
- Works in a group
- Uses tools to measure and view
- Looks at how parts of things are needed
- Describes and compares using physical attributes
- Observes using senses
- Draws and describes observations

Content (key terms and topics covered):

cells, animal cell, plant cell, cell wall, cell membrane, mitochondria, chloroplast

Learning Activity (Description in Steps)

Abstract (limit 100 characters): understanding for how the organelles of the plant and animal cell function.

Details: Start the lesson by providing the kids with background information on plant and animal cells. We did a Q & A so that you can get a better understanding for where the class stands as a whole on the knowledge of plant and animal cells.

After a ten to fifteen minute discussion, one paper plate is given to each child. Numbered the kids (1-animal cell and 2-plant cell). The students are asked to draw and color their cells on the paper plate. Then they make a key for their organelles. Ask that the key include a BRIEF description of each organelle. (This seemed to be the only problem for my kids...they don't like to write anything in their own words ☺).

When the cells were complete, I held another Q & A to again determine where the students stood as far as the retention of the information I had presented.

Materials Needed (Type and Quantity):

Paper Plates (enough for the entire class)

Colored Pencils

Textbooks with animal and plant cell pictures and descriptions

***Activity should take 5th graders about an hour, however lower grades may need a longer time period.**

Notes and Tips (suggested changes, alternative methods, cautions):

Background Information: Before beginning the activity, the students should have some prior knowledge of plant and animal cells. There is not a need for a vast amount of knowledge, as this activity is designed to help them expand on what they already know. Make sure to look in the textbooks your students will be using to ensure there are good pictures of plant and animal cells. They will need these pictures to base their drawings from.

Preparation: The materials should be gathered before you are ready to start. Otherwise, the kids will be very distracted and it will be near impossible to get them back on track. Also, as the teacher, you should probably look over plant and animal cells and know the differences between them and what each organelle does. You can write all of this information on a note card if you are afraid you might forget it!

Safety Issues: I don't foresee any problems as far as safety is concerned with this activity.

Possible Questions:

How many organelles do plant cells have?

How many organelles do animal cells have?

What are the two organelles that plants have and animal cells do not have?

Why do the plants have these two different organelles?

What does each organelle of each cell do?

Assessment/ Evaluation: Use these verbal questions to assess your students. If your students learn better through writing, or if you have a teacher that likes to incorporate all subjects (language arts etc.) you can have the students write the questions and answers in a science journal. You could also make a worksheet containing these questions in order to assess your students.

Sources/References:

1) Harcourt Science Publishers "Science Grade 5"

2)

3)