

Sticky Situation: Scene 1

At the end of the halftime show, the dancing cow exits the arena so that the 3rd quarter can begin. To start the 3rd quarter, LeBron James dribbles through the middle of the lane and dunks on Tracy McGrady with authoritative force. Tracy McGrady falls to the ground, but quickly gets up so as not to prolong the embarrassment. LeBron lets go of the rim, but as he lands on the ground, he slips on a sticky substance on the floor. LeBron rises from the floor without injury; however, his foot is slightly stuck to the ground. The team trainer and coach rush to the floor to make sure LeBron is all right. The coach and the trainer realize that neither one of them can identify the substance that is on the floor. Once LeBron's foot is released from the floor, the referees take an official time out and the maintenance crew is called to the floor to remove the mystery substance from the floor.

Maintenance cleans the floor and decides to send the "mystery substance" to a local scientific lab for further investigation.

When the "mystery substance" reaches the lab, the investigative team makes sure to put on their safety goggles, jackets, and gloves before handling the substance.

After looking at the Mystery substance for a while, Dr. Larry turns to Dr. Angela and said, "Where could this have possibly come from?"

Dr. Angela replies, "I'm not sure, and since we do not know what this substance is yet, we'd better be very careful in handling it. As I look at it under the microscope, I think we can narrow it down to either a prokaryotic or eukaryotic cell; I'm just not sure which one."

Sticky Situation: Scene 2

Dr. Angela motions to Dr. Larry to come take a look at her microscope. She says, "It's amazing how the cells on the slide continually grow. I started with a few cells on the slide and now there are at least triple the amount."

Dr. Larry replies, "That's interesting, I wonder what is causing the cells to grow." Then Dr. Larry asks, "Are these prokaryotic or eukaryotic cells?"

Just as Dr. Larry finishes his question . . . Dr. Angela yells, "Aha, I believe I see a nucleus in one of these cells, which means it's a ..."

Before Dr. Larry can complete his sentence, the phone rings. It's his grandmother asking him to stop by the store to get some milk and a hearing aid battery. He steps out into the hall to talk to her. Dr. Angela then yells to him, "I've noticed that some of the cells have chloroplasts while the others do not. I also see some other organelles."

Dr. Larry yells back, "Have a couple of the lab assistants sketch what you see, and have a few more describe the function of the organelles."

Dr. Larry continues to walk down the hall, screaming to his grandmother so that she can hear him. The lab assistants begin to perform their task.

Sticky Situation: Scene 3

The lab results determine that the substance was made of eukaryotic cells. Dr. Angela turns to Dr. Larry and says, "It seems that this substance came from the mouth of the dancing cow. It's the only place that such a substance containing both plant and animal cells could have come from."

"I agree," exclaimed Dr. Larry as he prepared to go and buy his grandmother's hearing aid batteries. "Well, since the mystery has been solved, I'm off to the store. See you tomorrow," Dr. Larry said as he walked out of the door.

"Yeah, see you tomorrow," said Dr. Angela.

Self/Group Evaluation Worksheet

Date: _____

Your Name: _____ Group #: _____

Instructions: Please circle the response with which you agree the most. This evaluation will only be read by your teacher(s) and will **not** be shown to other students.

1. How would you rate *your* participation in group discussion and group work?
5 Excellent 4 Very Good 3 Good 2 Fair 1 Poor

2. How would you rate *your* effort in completing the case?
5 Excellent 4 Very Good 3 Good 2 Fair 1 Poor

3. Did *you* complete the assigned homework? **Yes** **No**

If No, explain why:

4. How well did *you* work with everyone in your group?
5 Excellent 4 Very Good 3 Good 2 Fair 1 Poor

5. Overall, how would you rate *your* performance in this case?
5 Excellent 4 Very Good 3 Good 2 Fair 1 Poor

6. What praise or criticism do you have for other group members? What are your thoughts about the case?

Organelle Poster Project

Your Poster should be organized and divided into three main parts

1. At the Center of the poster—Main Title: "Guess The Organelle"
 - Large and Colorful Cell Drawing
 - Including the Enlarged Organelle
2. To the Left of the Poster
 - The typed Discovery and Function of the organelle.
3. To the Right of the Poster
 - Your typed song/rap/story or skit

Grading Rubric

Poster _____ 20 points

- Main Title** _____
- Drawings:
 - Cell (Plant or Animal) _____
 - Organelle Enlargement _____
- Neat and Organized Setup _____

**Poster's main Title should be: "Guess the Organelle"

Presentation _____ 20 points

- Creativity _____
- Neatness _____
- Accuracy of Information _____
- Voice Projection _____

Organelle Information Sheet _____ 20 points

- Typed _____
- Titled _____
- Name of Organelle _____
- Discovery and Function Information _____

Skit/Rap/Song or Story _____ 20points

- Typed _____
- Titled _____
- Leads to properly guessing the organelle _____
- Scientific information included _____

Rubric Grade Breakdown:

5 = Excellent; 4 = Good; 3 = Average; 2 = Fair; 1 = Not So Hot

Organelle List: Please choose one of the following for your poster
*****Only do organelles found in the textbook*** Are there organelles in this**

list that are not in the textbook?

1. Nucleus
2. Ribosomes
3. Rough Endoplasmic Reticulum
4. Smooth Endoplasmic Reticulum
5. Mitochondria
6. Chloroplasts
7. Golgi Complex
8. Large Vacuole
9. Lysosomes
10. Vesicles
11. Cell membrane
12. Cell Wall

LAB BOOK CELL DRAWINGS

- Turn your lab book around so all drawings are done horizontally
 - Start drawings and writing on a clean page
 - Do not draw or write on the back
 - Draw in pencil
 - Enhance with color
-
- **Page 1:** Title Page: Two Types of Cell

 - **Page 2:**
Title: Prokaryotic Cell
Label and draw the prokaryotic cell (see pg 66)

 - **Page 3-4:**
Title: Eukaryotic Cells
Label and draw the two types of eukaryotic cells (see pg 75)
Both cells should be labeled and identified
You may draw both cells on the same page or different pages
Label all the organelles of each cell

 - **Page 5:**
Copy the "Comparison Chart" on pg 67
Write and answer the following questions:
 1. What are the three parts of the cell theory?
 2. When Robert Hooke saw "juice" in some cells, what was he looking at?
 3. Why did Hooke think cells existed only in plants and fungi and not in animals?
 4. I have the job of giving new names to different things in a city. The new names have to be parts of a eukaryotic plant cell. Assign the name of a cell part that is most appropriate to their function. Don't forget to explain my choices.

Box Chart

FACTS (I see that. . .)	HYPOTHESIS (I think that. . .)
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.
10.	10.

INTERVIEW QUESTIONS (who, what, where, why, when)	LEARNING ISSUES (Need for further research)
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.
10.	10.