

# Plant Cell and Animal Cell Project

Objective: Students will compare and contrast plant cells and animal cells using a foldable graphic organizer. The purpose of this project is for the students to familiarize themselves with both the parts of the cells and discover the differences between plant and animal cells.

Students will create a cell foldable graphic organizer by:

1. Holding an 8 1/2" x 11" paper horizontally, fold both ends in so they meet, but do not overlap.
2. Step 2: Draw, color, and label the outside left flap as a plant cell and the outside right flap as an animal cell.
3. Step 3: With your paper flat (flaps open), you will have three sections formed by your folds. Inside the far left section will be for plant cell differences, the far right section for animal cell differences, and the center for similarities between plant and animal cells. In each of these sections, cell organelles will be listed and defined.

**A detailed demonstration will be given in class.**

The second part of this packet will be the foldable checklist that list all the organelles that should be defined on the foldable. On the third page is the grading rubric. The rubric will show you how many points each section is worth. The total amount of points that can be earned is 40 points. Students will earn points for lines drawn neat/straight, no pencil shown, colored neatly, writing legible, organelles numbered, and proper MLA heading on the back of paper: Name, Teacher, Subject, Date. The students will be given time to work on this project in the computer room and in Science class.

**This Cell project is due on December 19, 2017**

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I have seen and have read the sheet on the Cell project and am aware of its December 19<sup>th</sup> due date.

Student Signature \_\_\_\_\_ Parent Signature \_\_\_\_\_

# Plant Cell and Animal Cell Project

## Plant and Animal Cell Foldable Check List

Due Date \_\_\_\_\_

Use this sheet as a check list to make sure you have included all the required information in your foldable.

### 1. Front Cover:

#### **Left side: Plant Cell**

Label and number the following structures:

- |                          |                     |
|--------------------------|---------------------|
| 1. Cell Wall             | 5. Nuclear membrane |
| 2. Chloroplasts          | 6. Nucleolus        |
| 3. Cytoplasm             | 7. Large Vacuole    |
| 4. Endoplasmic Reticulum |                     |

#### **Right side: Animal Cell**

Label and number the following structures:

- |                  |                  |
|------------------|------------------|
| 8. Cell membrane | 13. Cytoskeleton |
| 9. Golgi Complex | 14. Nucleus      |
| 10. Mitochondria | 15. Centrioles   |
| 11. Lysosomes    | 16. Vacuole      |
| 12. Ribosomes    |                  |

### 2. Inside Cover:

#### **Left side: Plant Cell Differences**

List and define the 3 organelles that are only found or look significantly different in plant cells.

- |              |                |                  |
|--------------|----------------|------------------|
| 1. Cell wall | 2. Chloroplast | 3. Large Vacuole |
|--------------|----------------|------------------|

#### **Right Side: Animal Cell Differences**

List and define the 3 organelles that are only found or look significantly different in animal cells.

- |             |               |              |
|-------------|---------------|--------------|
| 1. Vacuoles | 2. Centrioles | 3. Lysosomes |
|-------------|---------------|--------------|

#### **Center: Plant and Animal Cell Similarities**

List and define all 10 organelles found in both plant and animal cells.

- |                          |                  |                      |
|--------------------------|------------------|----------------------|
| 1. Endoplasmic Reticulum | 4. Golgi Complex | 8. Ribosomes         |
| 2. Nucleus               | 5. Cell membrane | 9. Cytoskeleton      |
| 3. Nucleolus             | 6. Mitochondria  | 10. Nuclear membrane |
|                          | 7. Cytoplasm     |                      |

### 3. On the back:

Name: First and Last Name, teacher's name, subject, and due date.

# Plant Cell and Animal Cell Project

## Plant and Animal Cell Foldable Grading Rubric

### 1. Plant cell labeled with the following:

1. Cell Wall
2. Chloroplasts
3. Cytoplasm
4. Endoplasmic Reticulum

5. Nuclear membrane
6. Nucleolus
7. Large Vacuole

\_\_\_\_\_ / 7 points

### 2. Animal Cell labeled with the following:

8. Cell membrane
9. Golgi Complex
10. Mitochondria
11. Lysosomes
12. Ribosomes

13. Cytoskeleton
14. Nucleus
15. Centrioles
16. Vacuole

\_\_\_\_\_ / 9 Points

### 3. Plant and Animal Cell Differences:

**Left side:** 3 plant cell organelles listed and defined

1. Cell wall
2. Chloroplast

\_\_\_\_\_ / 3 Points

3. Large Vacuole

**Right Side:** 2 animal cell organelles Listed and defined.

1. Vacuoles
2. Centrioles

\_\_\_\_\_ / 3 Points

3. Lysosomes

### 4. Plant and Animal Cell Similarities: 11 organelles listed and defined.

1. Endoplasmic Reticulum
2. Nucleus
3. Nucleolus
4. Golgi Complex
5. Cell membrane
6. Mitochondria
7. Cytoplasm

\_\_\_\_\_ / 10 Points

8. Ribosomes
9. Cytoskeleton
10. Nuclear membrane

### 5. Followed Directions:

Lines drawn neat/straight  
(1 point)  
No pencil (2)

Colored neatly (2)  
Writing legible (1)

Organelles numbered (1)  
Proper heading on back (1)

\_\_\_\_\_ / 8 Points

**Total:** \_\_\_\_\_ / 40 Points