Cells, Tissues, Organs and Systems
Lab #3- Comparing Plant & Animal Cells

NAME: _____ Date Due: _____

Purpose: Discover how plant cells differ from animal cells.
Hypothesis:

_____

_____

_____

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Procedure: Read page 1.4 procedures and gather the data that is asked for below.

- Be aware of the following
    - Air bubbles appear as dark circles in cells
    - Some cells may already be dead and therefore will not have a nucleus

DATA:

1. Using the slide prepared with iodine
    a. Draw a group of 4 cells on a full sheet of white paper
    b. LABLE the structures that you see
    c. Use a ruler to draw straight lines when labelling
2. Estimate the size of one cell.
3. Using the animal cell slide,
    a. Draw a group of 4 cells on a full sheet of white paper
    b. LABLE the structures that you see
    c. Use a ruler to draw straight lines when labelling
4. Estimate the size of one cell.

(Complete on loose leaf and attach it to this sheet when you hand it in.)

Analysis Questions:

1. Is the arrangement of plant and animal cells different? Explain.

2. From what you saw, what ways do the two cells differ? Make a similar chart for your answer.

Animal cell	Plant Cell
1. 2.	1. 2.

3. Why is it a good idea to stain the cell?

4. Different cell have different purposes. What do you think is the purpose of the onion cells that we inspected?

5. Explain why the onion cell didn't have any chloroplasts. (Recall what chloroplasts do and what part of the plant we are investigating.)

Conclusion: (List the differences in appearance of animal cells and plant cells.)

1	2	3
❑ Incomplete or not handed in by due date ❑ No hypothesis ❑ Messy or little data ❑ Poor knowledge exhibited in analysis questions ❑ Incorrect or unclear conclusion ❑ Poor conduct during lab ❑ Redo and parent signature required – upon completion you will receive 50% X_____	❑ Complete by due date with accuracy ❑ Hypothesis **not** in "IF/THEN" form ❑ Accurate data ❑ Good knowledge exhibited in analysis questions ❑ Conclusion needs support ❑ Adequate conduct during lab Questions #'s need improvement _____	❑ Completed by due date with detail ❑ Hypothesis in proper form ❑ Accurate & clean data ❑ Excellent knowledge exhibited in analysis questions ❑ Supported conclusion ❑ Model scientist/student /18