

# Cells, Tissues, Organs and Systems

## Assignment #3- Plant/Animal Cells and History of Microscopes

NAME: \_\_\_\_\_

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

Point form is acceptable:

1. Label the black line master 1.3.1 (labelling cells ) found on the back page.

2. Where in a cell is genetic information found?

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3. Explain what is different about vacuoles in animal cells as compared to plant cells?

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4. What chemical is found in plant cells that give plants their green colour in appearance?

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5. What does this chemical do?

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6. What function do cilia or flagellum have?

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7. What purpose does cytoplasm serve?

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8. Name TWO structures that are found in plants but not in animal cells.

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9. A biologist finds a cell with what appears to be two nuclei (plural of nucleus). What conclusion might you make about why this cell appears to have two nuclei?

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10. Explain what might happen to a cell if a plastic coat that prevented molecules from entering or leaving the cell replaced the cell membrane.

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11. Who invented the earliest known microscope?

12. What is an advantage that a compound light microscope has over a single lens microscope?

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13. What is an advantage that a scanning electron microscope has over a transmission electron microscope?

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14. What is an advantage that a transmission electron microscope has over a scanning electron microscope?

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15. Describe the differences in appearance of algae cells when viewed under each type of microscope.

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16. Which microscope would you suggest to use to view...

a. The detailed structure of a nucleus \_\_\_\_\_

b. WHY?

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c. A single cell \_\_\_\_\_

d. WHY?

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<ul style="list-style-type: none"><li><input type="checkbox"/> Not completed on due date</li><li><input type="checkbox"/> Answers lacked effort and/or knowledge</li><li><input type="checkbox"/> Shows little understanding of cell structures and microscopes</li><li><input type="checkbox"/> Many or all questions must be redone #’s _____</li><li><input type="checkbox"/> Parent signature required or receive 0. 50% with a parent signature and redone</li></ul> <p>X _____</p>	<ul style="list-style-type: none"><li><input type="checkbox"/> Completed with accuracy</li><li><input type="checkbox"/> More explanation needed for some answers</li><li><input type="checkbox"/> Shows good understanding of cell structures and history of microscopes</li><li><input type="checkbox"/> <b>More</b> or a <b>better</b> explanation is needed for questions #’s _____</li></ul>	<ul style="list-style-type: none"><li><input type="checkbox"/> Completed with detail</li><li><input type="checkbox"/> Excellent explanations given</li><li><input type="checkbox"/> Shows excellent understanding of cell structures and history of microscopes</li><li><input type="checkbox"/> <b>Little</b> or <b>no</b> further explanation is needed Fine tune questions #’s _____</li></ul>
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