Name _____ Period _____ Date _____

Animal and Plant Cell Lab

PART 1. Cell structure

Go the different microscope stations, draw what you see in the circle provided, and answer each question.

Station 1- Plant leaf cells.

What are two structures found in plant cells that are **NOT** found in animal cells?

1.

2.

Do you think you see these structures in the slide? Yes/No (circle one).
If Yes, label them in your drawing.

What cellular structures enable this leaf to capture energy from the Sun?
(choose the correct answer)

- **a.** flagella
- **b.** chloroplasts
- **c.** nuclei
- **d.** cell wall

Station 2- Human skin cells.

1. What job do YOUR skin cells do? (choose the correct answer)
   - **a.** conduct photosynthesis
   - **b.** taste food
   - **c.** form a flexible, protective shield between us and the outside world
   - **d.** help transport oxygen throughout your body

2. Are your skin cells eukaryotic or prokaryotic? (circle the correct answer)

Station 3- Onion bulb cells.

1. Are the onion cells a type of plant cell or an animal cell? (circle the correct answer)

2. What do you think these onion bulb cells specialize in?
Remember that they are <u>not</u> exposed to the sun!
   - **a.** photosynthesis for the onion plant
   - **b.** storing nutrients and water in large vacuoles (storage organelles)
   - **c.** movement of the onion plant
   - **d.** destroying cancer cells in the onion plant

Station 4- Bacteria.

1. Is a single bacterium made up of only one cell (unicellular)
   or many cells (multicellular)? (circle the correct answer)

2. What is one structure that both plant cells and animals have that
   bacteria do **NOT** have?

PART 2. Cell Diversity

Cells come in different sizes and shapes. Some cells are specialized and organized into tissues and organs. A cell's shape might tell you something about its function. **Look at the photographs on the board and answer the following questions.**

1. I have a cell wall plus chloroplasts for photosynthesis. I am a _____.

2. I have no nucleus or other organelles. I am a _____.

3. I attack cancer cells so you should really like me! I am a _____.

4. I have no cell wall, but a plasma membrane. I am found everywhere in the human body. I am an _____.

5. I kill thousands of women in the U.S. every year. Hint: pink ribbons are worn is an international symbol for the disease I cause. I am a _____.

6. I live in a bulb that you can eat (ex: hamburgers), but I can make people cry! I am a _____.

7. I live in your brain and without me you could not think! I am a _____.

8. I am a dangerous cell that you can kill you if you smoke cigarettes too much. I am a _____.

9. I am found in a vegetable that is shaped like a tube and is long and green. Hint: the vegetable starts with an "A". I am an _____.

10. I circulate through your whole body through vessels by pumping action of the heart. Without me, your tissues could not receive oxygen! I am a _____.

11. I can be found in a brain tumor and am very dangerous. I am a _____.

12. I have a thick cell wall and live on the part of the plant that is underground. I am a _____.

Word Bank

plant root cell	asparagus cell
plant cell	breast cancer cell
neuron cell	T-cell
red blood cell	animal cell
onion cell	brain cancer cell
lung cancer cell	prokaryotic cell