

## Cells of Life (Lab Make-Up)

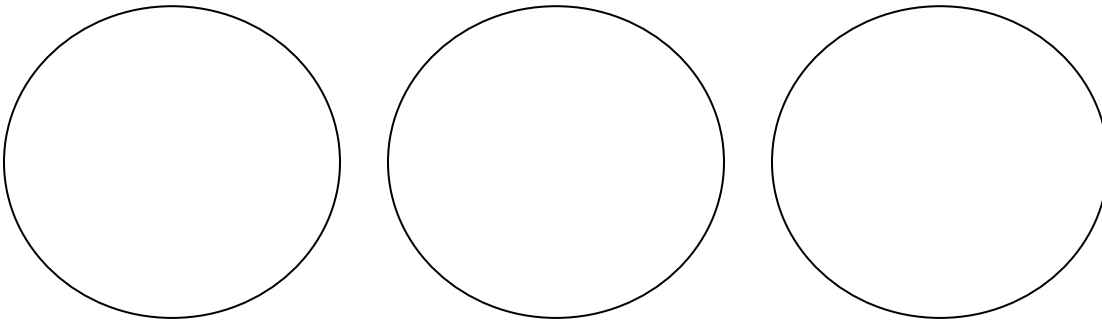
**Purpose:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Procedure- Part 1: (Bacteria)

Log onto the following website

<http://www.gccaz.edu/biology/isola/BIO182/labreview/bact3.htm>

In the space below label and draw the 3 different types of bacteria you observed.



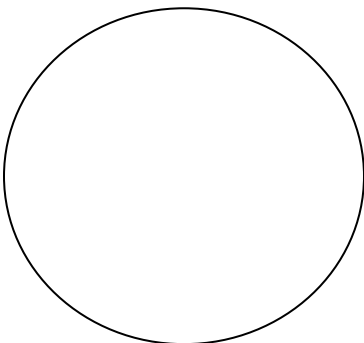
Complete the following questions:

- 1- If you have an objective lens of 60 and an ocular lens of 10, what is your total magnification? \_\_\_\_\_
- 2- Do these cells have a nucleus? \_\_\_\_\_
- 3- Are the cells you observed prokaryotic or eukaryotic cells? Explain why. \_\_\_\_\_

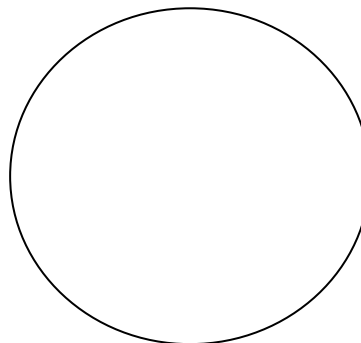
\_\_\_\_\_  
\_\_\_\_\_

### Procedure- Part 2 (Onion)

Log onto the following website <http://sciencespot.net/Pages/kdzbio.html> and select the Magnification Module. Under Choose a Sample, change it to Onion root tip. In the space provided draw what you see under the 100x magnification and 500x magnification.



100X



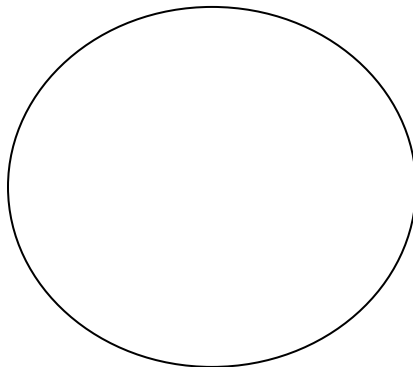
500X

Complete the following questions:

- 1- Describe the shape of the onion skin cells. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
- 2- Do these cells have a nucleus? \_\_\_\_\_
- 3- Are the onion skin cells that you observed prokaryotic or eukaryotic? Explain how you know. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Procedure- Part 3 (Pancreas)**

Log onto the following website <http://sciencespot.net/Pages/kdzbio.html> and select the Online Digital Microscope. Read the passage and select continue. Once the program has loaded, in the top right hand corner select the tissue type, Animal. When the drop down menu appears select the tissue type Pancreas- Transmitted Light. Then select the Pancreas Human and wait for the slide to load on the microscope stage. Using the Picture and Ring under the term Slide Catalog, double click the image to magnify it to 400X. Now draw below what the image is and be sure to be color specific.



Complete the following questions:

- 1- Are you viewing a unicellular or multicellular structure? Explain why. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
- 2- Do these cells have a nucleus? \_\_\_\_\_
- 3- Are the Pancreas cells you observed prokaryotic or eukaryotic? Explain how you know. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Procedure- Part 3 (Elodea Leaf)**

Log onto the following website <http://sciencespot.net/Pages/kdzbio.html> and select the Exploratorium Imaging Station. Now select the Activities Icon on the top right of the page. Select the icon Classroom Exploration. Then scroll down to Elodea Exploration and click on the

Name \_\_\_\_\_

icon. Begin by reading the objective and then select the video of Elodea leaf cells (highlighted in orange). Once it has loaded watch the video of the Elodea leaf cells then, draw in the box below the picture of the Elodea leaf cells with structures labeled.



Complete the following questions:

1- Describe the shape of the elodea leaf cells.

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2- Do these cells have a nucleus? \_\_\_\_\_

3- What are the tiny green bubble-like structures that you observed?

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4- What is the purpose of those bubble-like structures? \_\_\_\_\_

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5- Are the Elodea leaf cells you observed prokaryotic or eukaryotic? Explain how you know. \_\_\_\_\_

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