**Name: Date:**

**IB Biology: Structure of Cells**

Go to <www.cellsalive.com>

1. Choose "How Big is a \_\_\_\_\_\_\_?" Read the opening page before starting the animation. Complete the table below.

|  |  |  |
| --- | --- | --- |
| **Object** | **Magnification** | **Approximate size (include appropriate units)** |
| Head of a pin |  |  |
| Human hair |  |  |
| Dust mite |  |  |
| Ragweed pollen |  |  |
| Lymphocyte |  |  |
| Red blood cell |  |  |
| Baker's yeast |  |  |
| E. coli |  |  |
| Staphylococcus |  |  |
| Ebola virus |  |  |
| Rhinovirus |  |  |

2. Return to the home page and choose "Interactive Cell Models". Select the Bacterial Cell Model. Read the opening page and start the animation. **Draw, label and annotate** a bacterial cell.

3. Select the Plant/Animal Cell Models. Read the opening page and start the animation. Choose the animal cell animation and **draw and label** an animal cell.

4. Choose the plant cell animation and **draw and label** a plant cell.

5. Complete the table below.

|  |  |
| --- | --- |
| **Cell Structure** | **Function** |
| Nucleus |  |
| Nucleolus |  |
| Cytosol |  |
| Cytoplasm |  |
| Centrosome |  |
| Centriole |  |
| Golgi |  |
| Lysosome |  |
| Peroxisome |  |
| Secretory vesicle |  |
| Cell membrane |  |
| Mitochondria |  |
| Vacuole |  |
| Cell wall |  |
| Chloroplast |  |
| Smooth endoplasmic reticulum |  |
| Rough endoplasmic reticulum |  |
| Ribosomes |  |
| Cytoskeleton |  |

6. Return to the home page. Select "Dividing Bacteria". Read the information on the page and watch the *E. coli* binary fission video. Look at the Bacteria BioCam for a few minutes.

7. Use the drop-down menu under "Contents" at the top of the page to choose "Microscopy". View the "Cell Gallery" and read about the images under "Enhancing a Microscope Image".