

Name \_\_\_\_\_

## **Ribbon of life**

Log on to the FOSS *Ribbon of Life* by following these directions:

Go to Mr. Benton's web site: <http://www.mrbenton.com>

Click on the FOSS-DOL link; click on Diversity of Life; log on with username benton and password foss07

Click on Enter the Program button; Click on continue; Scroll over the Lab microscope in the bottom left corner

Click on Cells and the Ribbon of Life in the pop-up menu

After logging on with the directions above, follow the step-by-step directions below and answer each question as you look at the appropriate screen.

1. Looking at the Ribbon of Life screen, roll your cursor over the word "Atoms" at the bottom left.

A. What are two facts about elements and atoms that are stated in the paragraph?

\*

\*

B. The simplest element (atom) is Hydrogen. Can you guess what the names of some other elements might be?

\*

\*

2. Roll your cursor over the word "Molecules" on the Ribbon next to "Atoms."

A. Draw a molecule of water similar to the one shown next to the drop-down paragraph: (you don't need to use colors)

B. What does the red ball in the drawing represent? What do the two blue balls attached to the red one represent?

\*

3. Roll your cursor over the word "Organelles" without clicking. Read the drop down paragraph.

A. If a cell was your body, what would the organelles be according to this paragraph?

\*

4. Click on the word Organelles on the Ribbon of Life drawing. The screen you see has drawings of the five types of cells on the left and a list of structures (organelles) on the right. Scroll over the name of each organelle in the list of Structures at the right of the screen and answer the following questions:

A. What is the function of the mitochondrion?

\*

B. Which cell does not contain a nucleus? (Scroll over the word "nucleus" and see which cells "light up.")

\*

C. Click on "Ribosome." What is the function of a ribosome?

\*

D. Click on "Chloroplast." What ingredients does a chloroplast combine to make sugar?

\*

What gas do chloroplasts give off when they make sugar?

\*

E. How many types of cells have:

\* a cell membrane?

\* a cell wall?

\* cytoplasm?

Go back to the Cells and the Ribbon of Life screen. Click on the word "Cells."

F. What are the two main types of cells?

\*

\*

G. Click on the name each of the five types of cells shown on the Cells screen. Write one fact about each type.

\*

\*

\*

\*

\*

5. Everything is made of atoms, including organisms. Write the sequence of increasing organization of atoms in living organisms.

a. \_\_\_\_\_ d. \_\_\_\_\_ g. \_\_\_\_\_  
b. \_\_\_\_\_ e. \_\_\_\_\_ h. \_\_\_\_\_  
c. \_\_\_\_\_ f. \_\_\_\_\_

6. Some kinds of organisms are simple; others are complex. Put the major groupings of organisms in order from simplest to most complex. (Consider number of cells and types of cells.)

a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_

7. Cells are alive, but not all living cells are organisms. Explain.

8. What is the basic unit of life? Why do you think so?

9. What three organelles are found in all cells?

10. What is the difference between a prokaryotic cell and a eukaryotic cell?

11. How many kingdoms of organisms have prokaryotic cells? How many have eukaryotic cells?

12. How are paramecia cells and sheep cells the same and how are they different?

Same: 1.)

2.)

Different: 1.)

2.)

13. Plants and animals have tissues. What is a tissue?

14. How does each cell in an animal, such as a human, get the resources the cell needs to survive?

15. Some people say all life is aquatic. Explain what they mean.