

CELL STRUCTURE AND FUNCTION VIDEO

View <http://www.youtube.com/watch?v=o1GQyciJaTA&feature=related> and fill in blanks below.

1. A _____ is the smallest unit of life. A *cell* is the _____ of all living things.
2. *Organisms* are made up of _____ (such as the digestive system). *Organ systems* are made up of (comprised of) _____ (such as the liver, stomach, and small intestines). *Organs* are made up of _____ (which are a group of similar cells that perform the same function), such as epithelial tissue or smooth muscle tissue. *Tissues* are made up of _____ (which is the smallest unit of life). *Cells* are composed of _____ (like mitochondria) and _____ like DNA and phospholipids.
3. There are 2 major classifications of cells: _____ and _____.
4. *Prokaryotes* are _____ and include ***bacteria***.
5. *Eukaryotic cells* make up more _____ organisms like plants and animals.
6. *Prokaryotes* lack a membrane bound _____. "*PRO has NO*"
7. *Eukaryotic cells* contain a membrane bound _____, that holds all of the _____ in one part of the cell. They also contain many other membranous organelles. "*EU has NU*"

CELL CITY ANALOGY

8. The cell membrane is like the _____.
9. The nucleus is like the _____.
10. The mitochondria is like the _____.
11. Cells use _____ as its energy currency.

12. _____ are like factories because they assemble proteins.

13. The _____ acts as a post office, because it packages and modifies proteins.

14. The Endoplasmic Reticulum is like the _____ system for the cell by creating passage ways used to transport proteins throughout the cell.

15. _____ are *enzyme* filled sacs that act as the trash man for the cell – digesting and recycling worn out organelles.

List 3 differences between plant cells and animal cells:

Going further . . .

Biomolecules and organelles → _____ → _____ → _____ → _____ → _____ → organism

Can you name another organ system? _____

What two organelles function in energy production?

How does the structure of a phospholipid contribute to its ability to form a lipid bilayer (draw and explain).

Ribosomes assemble proteins. What is the raw material that ribosomes use to build a protein?

Chloroplast capture sunlight energy in the process of producing glucose (photosynthesis). What type of bio molecule is glucose? How does its ratio of carbon, hydrogen and oxygen confirm this?