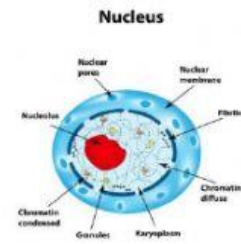


## Cell Structure and Compartments

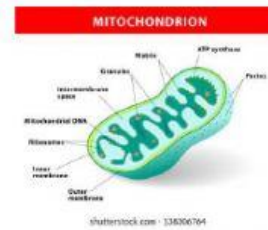
1. Which of the following two organelles look most alike structurally?

- A. Nucleus and vesicle
- B. Golgi apparatus and smooth endoplasmic reticulum ER
- C. Vacuole and cytoskeleton
- D. Lysosome and chloroplast



2. In terms of basic cell structure, what do an elephant and an oak tree have in common?

- A. They both are eukaryotes
- B. They both have a cell nucleus
- C. They both have mitochondria
- D. All of the above



3. Where in a eukaryotic cell, DNA can be found?

- A. Nucleus
- B. Mitochondrion
- C. Vacuole
- D. Both (a) and (b)



4. Which of the following structures is expected in a bacterium?

- A. Nucleus
- B. Plasma membrane
- C. Golgi apparatus
- D. Endoplasmic reticulum

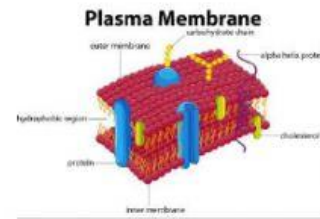
5. Which of the following organelles is directly connected to the outer membrane of the nucleus in a eukaryotic cell?

- A. Mitochondrion
- B. Lysosome
- C. Golgi apparatus
- D. Endoplasmic reticulum



6. The simplest way to differentiate a prokaryotic cell from a eukaryotic one is to

- A. look for a plasma membrane
- B. see if a nucleus is present
- C. check for the presence of DNA
- D. determine if the cell is an entire organism or not

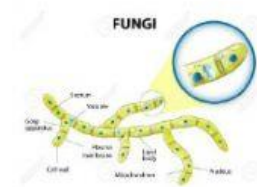


7. Which of the following is the best criterion for deciding whether a cell is prokaryotic or eukaryotic?

- A. The cell came from a single-celled or multicelled organism
- B. The cell has a nucleus or not
- C. The cell has cytosol or not
- D. DNA is present in the cell or not

8. Lysosomes are specialized vesicles in \_\_\_\_\_ that contain digestive enzymes for the breakdown of food. A related organelle known as a vacuole, which is found in \_\_\_\_\_, also contains enzymes but in addition may act as a storage organelle for nutrients or water.

- A. animals; plants and fungi
- B. plants; animals and fungi
- C. plants and fungi; animals
- D. animals and plants; fungi

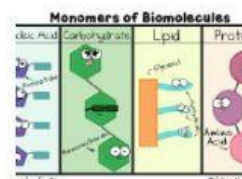


9. The highly folded membranes found in such eukaryotic organelles as mitochondria and chloroplasts

- A. increase the surface area where key chemical processes can occur
- B. help the cell against physical damage
- C. make it possible to package large amounts of DNA within the cell
- D. assist with cell movement

10. Which of the following macromolecules are found in the plasma membrane?

- A. Lipids and proteins only
- B. Lipids, proteins, and carbohydrates
- C. Proteins and carbohydrates only
- D. Proteins only

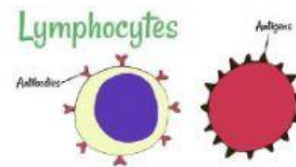


11. Clearly defined nucleus, mitochondria in a large central vacuole and chloroplasts, indicate the group of organisms from

- A. bacteria
- B. fungi
- C. plants
- D. animals

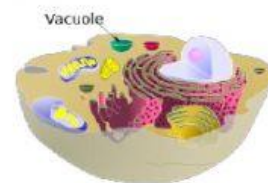
12. Which of the following are responsible causing the diseases?

- A. Pathogens
- B. T cells
- C. Lymphocytes
- D. Macrophages



13. In which of the following cell types more cellular detail can be observed using an electron microscope compared to a light microscope?

- A. Animal
- B. Bacterial
- C. Protist
- D. All of these



14. Which of the following is present in both prokaryotes and eukaryotes?

- A. Lysosome
- B. Chloroplast
- C. Plasma membrane
- D. Vacuole