

**Module 1 Cells and Life ( Lesson 1 + lesson 2 )**

**1. a rigid supporting layer that surrounds the cells of plants and some other organisms**

- a. cell membrane
- b. nucleus
- c. cell wall
- d. cytoplasm

**2. In cells a large oval organelle that contains the cells genetic material in the form of DNA and controls many of the cells activities**

- a. organelle
- b. cell wall
- c. ribosome
- d. nucleus

**3. the thick fluid region of a cell located inside the cell membrane or between the cell membrane and nucleus**

- a. cytoplasm
- b. cell wall
- c. organelle
- d. golgi apparatus

**4. An organelle in a cell that receives proteins and other newly formed materials from the endoplasmic reticulum packages them and distributes them to other parts of the cell**

- a. vacuole
- b. golgi apparatus
- c. ribosome
- d. chloroplast

**5. A sac like organelle that stores water, food, and other matter**

- a. **vacuole**
- b. cytoplasm
- c. lysosome
- d. cell wall

**6. A cell organelle which contains chemicals that break down large food particles into smaller ones and that can be used by the rest of the cell**

- a. chloroplasts
- b. ribosomes
- c. **lysosomes**
- d. cell membrane

**7. a small grain shaped organelle found in the cytoplasm of a cell or on the R-ER that produced proteins**

- a. cytoplasm
- b. cell membrane
- c. **ribosome**
- d. mitochondria

**8. an organelle in the cells of plants and some other organisms that captures energy from sunlight and changes it to an energy from that cells can use in making food**

- a. vacuole
- b. cytoplasm
- c. **chloroplasts**
- d. mitochondria

**9. What is found in both plant and animal cells but is much larger in plant cells?**

- a. Nucleus
- b. Chloroplast
- c. Mitochondrion
- d. **Vacuole**

**10. Which of the following is found in eukaryotic cells but NOT prokaryotic cells?**

- a. Cell membrane
- b. Ribosomes
- c. Mitochondria
- d. DNA

**11. Directs all cell activities through the DNA located there.**

- a. Lysosomes
- b. ribosomes
- c. Nucleus
- d. Mitochondria

**12. Which organelle is only found in a plant cell?**

- a. nucleus
- b. mitochondria
- c. chloroplast
- d. cell membrane

**13. Where are proteins made?**

- a. Golgi body
- b. Chromosomes
- c. Mitochondrion
- d. Ribosomes

**14. What makes the endoplasmic reticulum rough?**

- a. Vesicles
- b. Ribosomes
- c. Vacuoles
- d. Chromosomes

**15. What is the name of the genetic material that is inside the nucleus?**

- a. ER
- b. ATP
- c. YOLO
- d. DNA

**16. Who discovered and named cells?**

- a. Captain Hook
- b. Zacharias Janssen
- c. Robert Hooke
- d. Rudolf Virchow

**17. Which is not a part of cell theory?**

- a. All organisms are made of cells.
- b. All matter is composed of living cells.
- c. All existing cells come from preexisting cells.
- d. The cell is the most basic unit of life.

**18. Microscopic single-cells that do not have a nucleus or other membrane-bound organelles.**

- a. DNA
- b. Eukaryotes
- c. RNA
- d. Prokaryotes

**19. Which statement could you use to construct an explanation for why it is important for a cell's surface-area-to-volume ratio to not be too small?**

- a. Wastes and nutrients need to move through the membrane.
- b. If a cell's surface-area-to-volume ratio was too small, the cell would starve.
- c. If a cell's surface-area-to-volume ratio was too small, the cell would not produce enough waste material.
- d. If a cell's surface-area-to-volume ratio was too small, the organelles would grow too large to fit within the cell.

**20. Mitochondria function as subsystems within the larger system of the cell as a whole. Which explains why a mitochondrion, shown on the right, is known as the “power house” of a cell?**

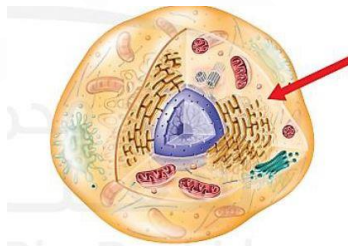
- a. The cell eats it as food.
- b. It helps the cell gather sunlight.
- c. It converts energy in food to ATP.
- d. It has two membranes.

**21. Rosa is planning an investigation using a microscope to try to identify a group of cells. She sees that the cells are joined together, so she knows that they are from one organism. If she also sees that all of the cells have cells walls, Rosa can conclude that she could be looking at**

- a. bacterial cells.
- b. human cells
- c. plant cells
- d. mouse cells

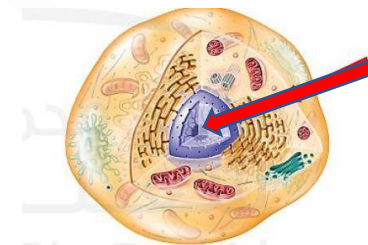
**22. The arrow show the .....**

- a. chloroplast
- b. cytoplasm
- c. mitochondrion
- d. nucleus



**23. The arrow show the .....**

- a. chloroplast
- b. mitochondrion
- c. cytoplasm.
- d. nucleus



**24. Which process do plant cells use to capture and store energy from sunlight?**

- a. endocytosis
- b. fermentation
- c. glycolysis
- d. photosynthesis

**25. Which organelle is used to store water?**

- a. chloroplast
- b. nucleus
- c. vacuole
- d. lysosome

**26. Which best describes vacuoles?**

- a. lipids
- b. proteins
- c. contained in mitochondria.
- d. storage compartments

**27. The smallest unit of life is the \_\_\_\_.**

- a. cell
- b. homeostasis
- c. organism
- d. protein

**28. Which of the following is NOT a necessary characteristic of a living thing?**

- a. It is made up of cells.
- b. It eats food to get energy.
- c. It grows and develops.
- d. It responds to stimuli.

**29. Which of the following is a multicellular organism?**

- a. bacterium
- b. amoeba
- c. mouse
- d. paramecium

**30. .... cells have genetic material that is not surrounded by a lining?**

- a. Prokaryotic
- b. Eukaryotic

**31. Which statement is true?**

- a. Cells come in different shapes, but are all about the same size—very, very small.
- b. Cells come in different shapes and sizes.
- c. Cells all have the same shape, but come in different sizes.
- d. Cells are all the same shape and size—small and rounded.

**32. The cell theory is the result of the hypothesis and observation of one person?**

- a. True
- b. False

**33. The cell theory states that all cells come from cells that already exist.**

- a. True
- b. False

**34. Which correctly describes a difference between prokaryotic and eukaryotic cells?**

- a. Only prokaryotic cells have vacuoles.
- b. Eukaryotic cells are smaller than prokaryotic cells.
- c. Prokaryotic cells have many organelles, each with their own specialized functions.
- d. Only eukaryotic cells have their genetic material surrounded by a lining.

**35. A spore is a small structure, usually a single cell, produced by plants, fungi, and some microorganisms. In the right environment, a single spore can develop into a new, individual organism.**

**During observations of soil samples, scientists find tiny structures that appear to be spores. Which experiment could the scientists use that would best determine if these tiny structures were spores?**

- a. Test them for chemicals normally found in living cells.
- b. Place them in water and see if they change in shape or mass.
- c. Observe whether they go through the steps of cell division to form new cells.
- d. Observe whether they are made of atoms by using a high-powered microscope.

**36. To which organelle is the line pointing? What is its function ?**

- a. Golgi apparatus, packages proteins into vesicles.
- b. Golgi apparatus, production of proteins.
- c. Ribosome, packages proteins into vesicles.
- d. Ribosome, production of proteins

