



**INDIAN SCHOOL AL BURAIMI**  
**BIOLOGY WORKSHEET**

STD : IX  
NAME: .....

DATE : 14.03.24  
WORKSHEET 1

Lesson 5. The Fundamental Unit of Life

**TOPIC: Transport of materials through Cell membrane**

1. What is diffusion?  
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2. Name the two components, which make up the plasma membrane.....
3. What is cell wall made up of? .....
4. Give two examples of unicellular organisms.....
5. Give two examples of multicellular organisms.....
6. What is the outermost layer of an animal cell? .....
7. What is the outermost layer of a plant cell? .....
8. Name the instrument that can help you view a cell clearly. ....
9. What did Robert Hooke observe first in a piece of cork? .....
10. Name the three components seen in every cell. ....
11. What will happen to a cell when it is placed in an isotonic solution?  
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12. What are the two conditions required for osmosis?  
.....  
.....
13. What will happen to a cell when it is placed in a hypotonic solution?  
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14. What will happen to a cell when it is placed in a hypertonic solution?  
.....
15. Name the process by which the plasma membrane shrinks away from the cell wall.  
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**Choose the correct answer:**

- Q1.** The passage of water across a selectively permeable membrane is known as  
(a) Osmosis (b) Diffusion (c) Facilitated diffusion (d) Active transport
- Q2.** Which of the following solutions contains a low solute concentration relative to another solution?  
(a) Hypotonic solution (b) Isotonic solution  
(c) Hypertonic solution (d) Saline glucose
- Q3.** Transpiration is a phenomenon pertaining to  
(a) Diffusion (b) Osmosis (c) Facilitated diffusion (d) Transport
- Q4.** Which of the following phenomena is responsible for raisins' swelling in water?  
(a) Diffusion (b) Adsorption (c) Endosmosis (d) Exosmosis
- Q5.** Which of the following cells have cell wall?  
(i) Animal cell (ii) Plant cell (iii) Fungi (iv) Bacteria  
(a) (i) and (ii) (b) (ii) and (iii) (c) (iii) and (iv) (d) (i), (ii) and (iii)
- Q6.** When we put raisins in water why do they swell up?  
(a) Water is a hypertonic solution (b) Water is a hypotonic solution  
(c) Water is a neutral solution (d) Water is an isotonic solution
- Q7.** When we put salt on vegetables, why do they become soggy after sometime?  
(a) Salt forms a hypertonic solution (b) Salt forms a hypotonic solution  
(c) Salt forms a neutral solution (d) Salt forms an isotonic solution
- Q8.** What will happen to a cell when it is placed in a hypertonic solution?  
(a) The cell swells up (b) The cell shrinks  
(c) The cell remains the same (d) The cell undergoes plasmolysis
- Q9.** Why do unicellular organisms like amoeba take in food from its external environment through their cell membrane?  
(a) Because they are made up of one cell only.  
(b) Because they have no mouth parts.  
(c) Because they have no cell walls.  
(d) Because the cell membrane is flexible
- Q10.** Cell membrane is made up of  
(i) Lipids (ii) Proteins (iii) Phospholipids (iv) Cellulose  
(a) **(i) and (ii)** (b) **(ii) and (iii)** (c) **(iii) and (iv)** (d) **(i) and (iv)**