



# D.A.V. PUBLIC SCHOOL, NEW PANVEL

## 2025-2026

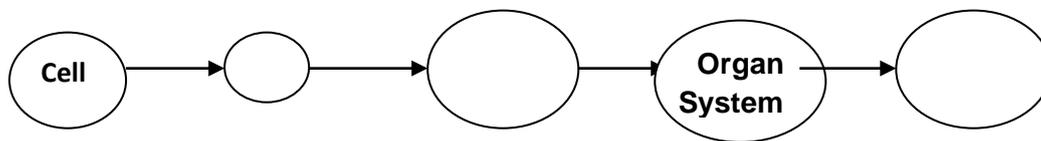
### SUMMER HOLIDAY ASSIGNMENT WORKSHEET

SUB: SCIENCE

STD: VIII

### The Cell-Its Structure and Functions

1. Name the unit common to all living beings. Who was responsible for discovering it?
2. Is the shape and size of a cell dependent on the size of an organism, discuss.
3. Give an example of the largest cell and smallest cell.
4. Geeta scrapped the inner side of her cheek with tooth pick and got a frothy material on the tooth pick and mounted it on a slide. She observed the slide under the microscope.
  - a) Name the type of the cell she saw.
  - b) Draw a labelled diagram of the cell she saw.
  - c) Was the cell seen by her same as the cell seen in the onion peel.
5. Fill in the blanks in a flow chart showing the level of organisation in the living world.



6. Name the extensions of cell membrane that help in locomotion.
7. The large empty space that appears in the cytoplasm of the plant cell is known as \_\_\_\_\_. State its function also.
8. Complete the given statements
  - a) From microscopic bacteria to large organisms like whales or gigantic trees are all made up of \_\_\_\_\_, \_\_\_\_\_ of all organism.
  - b) On the basis of their number of cells living organisms can be classified into two categories \_\_\_\_\_ and \_\_\_\_\_.
  - c) \_\_\_\_\_ possess long fibre like structure.
  - d) The smallest cell \_\_\_\_\_ also called \_\_\_\_\_ is about 0.1 micron in diameter.
  - e) The size of cell of green alga, Chara is \_\_\_\_\_.
  - f) The \_\_\_\_\_ consists of the cytoplasm and the \_\_\_\_\_.
  - g) \_\_\_\_\_ are structures present within a cell that help it to perform its relevant functions.
  - h) The \_\_\_\_\_ controls the entry and exit of the substances of the substances as per the requirements of cell.
  - i) When the cell is ready to divide the \_\_\_\_\_ condenses to form thicker thread like structures called \_\_\_\_\_.
  - j) The \_\_\_\_\_ is plastid associated with different coloured parts of plants.
9. Define the following terms
  - a) Cell
  - b) Tissues
  - c) Organs
  - d) Protoplasm
10. a) \_\_\_\_\_ : Cell:: Brain: Body  
b) Cell membrane : \_\_\_\_\_:: Skin : Body
11. Differentiate plant cell from an animal cell on the basis of shape and organelles present in both the cells.

12. Identify me

- a) I have double membrane around me and carry on respiration, who am I ? \_\_\_\_\_.
- b) I appear as a large empty space in the cytoplasm of the plant cell, who am I? \_\_\_\_\_.
- c) I am present on the endoplasmic reticulum and I am responsible for protein synthesis, who am I ? \_\_\_\_\_

13. What are plastids? Name the different plastids found in plant cell and state their functions also.

14. How is cytoplasm different from nucleoplasm?

15. Where do you find the structures responsible for inheritance of characters from one generation to another?

16. State one main function of the following organelles

- a) Endoplasmic reticulum
- b) Golgi complex
- c) Cell wall
- d) Ribosomes

17. All the cells have common features, however they can appear different in different parts of the organism, justify with examples

18. How is tissue different from organs?

19. Both cilia and flagella are responsible for locomotion. Are they present together in a cell of any organism. Give example of an organism that uses them for locomotion.

20. Draw a labelled diagram of cross section of a hen's egg.

21. What is life span of red blood cell?

22. What provides the unique living nature to protoplasm?

23. Give reasons for the following

- a) The mitochondria is present in large numbers in cell engaged in different physiological activities
- b) Leucoplasts are colourless.
- c) Rose plants have red colour flower
- d) Plant cell have fixed shape