



**D.A.V. PUBLIC SCHOOL, NEW PANVEL**  
**2025-2026**  
**SUMMER HOLIDAY ASSIGNMENT**  
**WORKSHEET**

**SUB: SCIENCE**

**STD: IX**

- .....
1. Which plastids are colourless?  
a. Chromoplasts    b. Chloroplast    c. Leucoplasts    d. All of the above
  2. An unripe green fruit changes colour when it ripens. The reason being:  
a. Chromoplasts changes to chlorophyll    b. Chromoplasts changes to chromosomes  
c. Chromosomes changes to chromoplasts    d. Chloroplast changes to chromoplasts
  3. The phenomenon where cytoplasm shrinks in a hypertonic medium is called:  
a. Frontolysis    b. Plasmolysis    c. Acidolysis    d. Allolysis
  4. Which part of the plant cell permits it to withstand very dilute external medium without bursting?
  5. Identify the single celled organisms from the following:  
Cockroach, Chlamydomonas, snake, mosquito, bacteria
  6. Write any two differences between prokaryotic and eukaryotic cells.
  7. List the constituents of plasma membrane.
  8. Name the process in which diffusion takes place through a selectively permeable membrane.
  9. Define diffusion.
  10. Name two factors on which shape of the cell depends.
  11. Name the process which occurs when a drop of Dettol is added to water.
  12. To which physical state of matter do the following statements apply?  
(i) Incompressible, no fixed shape  
(ii) Compressible, no definite volume
  13. In which of the following, the particles have highest forces of attraction?  
Water, NaCl (solid), ice or, wax.
  14. Why do the gases exert more pressure on the walls of the container than the solids?
  15. What happens to the rate of diffusion if the temperature is increased?
  16. Name the state of matter that has the tendency to maintain their shape when subjected to outside force.
  17. Define melting point and boiling point.
  18. Define sublimation
  19. Define latent heat of vaporization and latent heat of fusion

20. Give two properties of solid, liquids and gases.

21. Differentiate between

(i) distance and displacement

(ii) speed and velocity

(iii) scalar and vector

22. Write the SI unit of distance, displacement, speed, velocity and acceleration.

23. Define the terms

(i) uniform motion (ii) non uniform motion (iii) speed (iv) velocity (v) acceleration

24. Choose the physical quantities which need to be specified both by their magnitude and direction:

distance, displacement, speed, velocity and acceleration

25. An object has moved through a distance. Can it have zero displacement? If yes support your answer with an example.

26. Which of the following is true for displacement:

(a) It cannot be zero.

(b) Its magnitude is greater than the distance travelled by the object.

27. What does the odometer of an automobile measure?

28. What does the path of an object look like when it is in uniform motion?

29. The odometer of a car reads 3000 km at the start of a trip and 3500 km at the end of the trip. If the trip took 10 hours, calculate the average speed of the car in  $\text{km h}^{-1}$  and  $\text{m s}^{-1}$ .

30. Draw a graph for uniform and non uniform motion