

**VIDYASGAR SCHOOL INDORE**  
**SUMMER ASSIGNMENT 2026-27**  
**CLASS- IX SUBJECT- SCIENCE (086)**

**BIOLOGY ASSIGNMENT (ANY ONE)**

1. Identify and describe the role of biomolecules in the structure and function of cell.
2. Cite case study related to the use of science in human life, for example, Leigh Syndrome and mitochondrial dysfunction.
3. Apply learning of a structure and function of muscles cells or joints in dance form and/or sports.
4. Discuss significant contributions of India, for example, Professor Arun Kumar Sharma for his work on chromosomes and methods for its studies.

**CHEMISTRY ASIGNMENT (ANY ONE)**

- 1 Relate separation techniques with practices observed in the daily life.(for example filtration, sedimentation, winnowing .
- 2 . Display awareness about the societal impact of chemistry in making life healthier, cleaner and sustainable
- 3 Describe the cultural practices, like traditional methods of distillation
- 4 Display awareness about the contributions of Indian scientists, such as Dilip Mahalanabis

**PHYSICS ASIGNMENT –(ALL FIVE) ) (TO BE DONE IN CLASS WORK NOTE BOOK)**

- Q.1 Plot and interpret position-time graphs and velocity time graphs to describe the motion of an object moving in a straight line in one direction (with constant velocity and constant acceleration)
- Q.2 An athlete completes one round of a circular track of diameter 200 m in 40s. What will be the distance covered and the displacement at the end of 2 minutes 20s?
- Q3 Joseph jogs from one end A to the other end B of a straight 300 m road in 2 minutes 30 seconds and then turns around and jogs 100 m back to point C in another 1 minute. What are Joseph's average speeds and velocities in jogging (a) from A to B and (b) from A to C?
- Q.4 Abdul, while driving to school, computes the average speed for his trip to be 20 km h<sup>-1</sup>. On his return trip along the same route, there is less traffic and the average speed is 30 km h<sup>-1</sup>. What is the average speed for Abdul's trip?
- Q.5 A motorboat starting from rest on a lake accelerates in a straight line at a constant rate of 3.0 m s<sup>-2</sup> for 8.0 s. How far does the boat travel during this time?

**PROJECT- BIOLOGY** Exhibit creativity and design models using low cost or no-cost eco-friendly material to study structure and functions of cell and cell organelles

**PROJECT- CHEMISTRY-** Exhibit creativity and work collaboratively in groups to create models /charts of apparatus used for separating mixtures, such as

Centrifugation/chromatography /filtration/ and a distillation unit, using eco-friendly materials.

**PROJECT- PHYSICS-** Exhibit creativity and design models using low cost or no-cost eco-friendly material to study the concept of distance, displacement, speed, velocity and acceleration.

-----

-