Science class ix holiday homework :

Note : students have to make a separate holiday homework notebook for science .

1. Do all the ncert examples given in chapter 8 motion in holiday homework notebook.

2. Solve the worksheet attached with this homework in holiday homework notebook.

3. Learn and write NCERT (In-text book as well as back exercise Q/A)of chapters covered in class in your holiday homework notebook.

4. Prepare a model to compare plant cell and animal cell using common household items like grains and pulses .

5. Plant a sapling and nurture it.

6. Consider your School like a cell : Each part of the cell (School) has responsibilities that must be done and contain organelles (people) to do them . Identify the function of the following parts of the cell then identify which person does the same job.

First one is done as an example to follow:

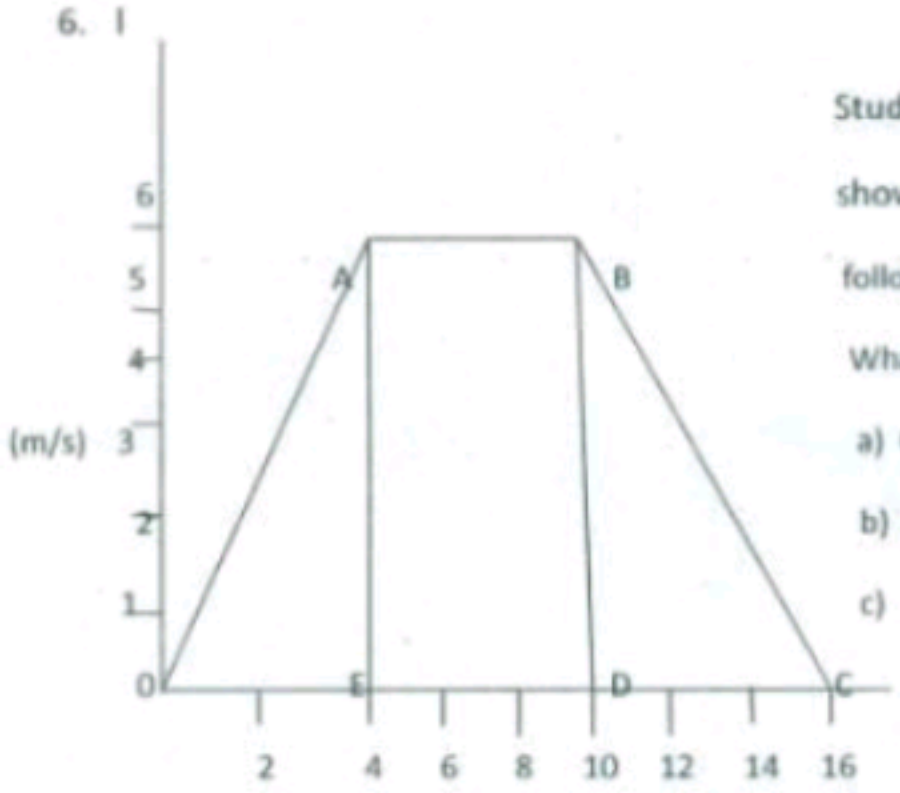
S.no	Organelle	Function	Part of school that has similar function
1.	Cell membrane	Controls what goes in and out of the cell	Front office
2.	Mitochondria		
3.	Nucleus		
4.	Ribosomes		
5.	Golgi body		

WORK SHEET

Class: IX **Subject: Physics**

SOLVE THE FOLLOWING PROBLEMS:

1. Suppose you walk across a room of length with a velocity of one and a half kilometer per hour. Express this velocity in m/s and find the time you will take to move across the room.
2. A car travels 30km at a uniform speed of 40km/h and the next 30km at a uniform speed of 20km/h. Find its average speed.
3. A train travels at 60km/h for 0.52h; at 30km/h for the next 0.24 h and at 70km/h for the next 0.71h. What is the average speed of the train?
4. A scooter acquires a velocity of 36km/h in 10 seconds just after the start. It takes 20 seconds to stop. Calculate the acceleration in two cases?
5. A train 100m long moving on a straight level track passes a pole in 5s. Find a) the speed of the train b) the time it will take to cross a bridge 500m. long.
6. I



Study the speed time graph of a body shown in the figure and answer the following questions:

What type of motion is represented by

a) OA

b) AB

c) BC

d) Find out acceleration body.

e) Find out retardation of the body.

f) Find out the distance travelled by the body from A to B

7. In the above question, calcu late a) distance travelled from O to A

   b) distance travelled from B to C

   c) Total distance travelled by the body in 16 sec.

8 A car is moving on a straight road with uniform acceleration. The following table gives the speed of the car at various instants of time:

TIME(s)	0	10	20	30	40	50
Speed(m/s)	5	10	15	20	25	30

Draw the sped time graph choosing a convenient scale. Determine from it i) the acceleration of the car

ii) the distance travelled by the car in 50 sec.

9. A moving train is brought to rest within 20seconds by applying brakes. Find the initial velocity, if the Retardation due to brakes 2 m/s.
10. An object undergoes an acceleration of $8m/s^2$ starting from rest. Find the distance travelled in 1 second. (4m)
11. A body is accelerating at a constant rate of $10m/s^2$. If the body starts from rest, how much distance will it cover in 2 seconds? (20m)
12. A car accelerates uniformly from 18km/h to 36km/h in 5 second. Calculate i) the acceleration and ii) the distance covered by the car in that time. ($1m/s^2$, 37.5m)
13. A motor cycle moving with a speed of 5m/s is subjected to an acceleration of $0.2m/s^2$. Calculate the speed of the motor cycle after 10 seconds, and the distance it travels in this time. 97m/s; 60m)