

KENDRIYA VIDYALAYA IIT CHENNAI

SCIENCE HOLIDAY HOMEWORK

CLASS IX (2015-16)

I. CHEMISTRY

1. PROJECT

Take an earthen pot, some pebbles and sand. Design a small-scale filtration plant that you could use to clean muddy water.

II. BIOLOGY

1. ACTIVITY

1. Make a herbarium of cereals, pulses and oil seeds and identify the seasons of their sowing and harvesting. (Each 5)

2. OSMOSIS EXPERIMENTS (REFER PAGE NO- 67 IN NCERT TEXT BOOK)

(OR)

Visit a fish farm in fish breeding season and note the following:

- a) Varieties of fish in the ponds
- b) Types of ponds
- c) Feed ingredients being used in the farm
- d) Find out what the production capacity of the farm is.

III. PHYSICS

A) NUMERICALS

1. 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 20 s?
2. 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?

3. Abdul, while driving to school, computes the average speed for his trip to be 20 km h^{-1} . On his return trip along the same route, there is less traffic and the average speed is 30 km h^{-1} . What is the average speed for Abdul's trip?
4. A motorboat starting from rest on a lake accelerates in a straight line at a constant rate of 3.0 m s^{-2} for 8.0 s . How far does the boat travel during this time?
5. An artificial satellite is moving in a circular orbit of radius 42250 km . Calculate its speed if it takes 24 hours to revolve around the earth.