

**CAMBRIAN PUBLIC SCHOOL,
KANKE ROAD RANCHI**

SYLLABUS FOR THE SESSION 2020-2021

CLASS - IX

SUBJECT - SCIENCE

PRESCRIBED BOOK-

NCERT TEXT BOOK.

TERM - 1 (P.T. -1 + HALF YEARLY)

(APRIL TO SEPTEMBER)

CHEMISTRY:-

Chapter 1:- MATTER IN OUR SURROUNDING (P.T.1).

Chapter 2:- IS MATTER AROUND US PURE ? (P.T.1).

Chapter 3:- ATOMS AND MOLECULES (LAWS OF CHEMICAL COMBINATION)

BIOLOGY:-

Chapter 5:- FUNDAMENTAL UNIT OF LIFE.(P.T.1)

Chapter 6:- TISSUE. (P.T.1)

Chapter 7:- DIVERSITY IN LIVING ORGANISMS

Chapter 13:- WHY DO WE FALL ILL ?

PHYSICS :-

Chapter 8:- MOTION. (P.T.1)

Chapter 9:- FORCE AND LAWS OF MOTION.(P.T.1)

Chapter 10:- GRAVITATION

PERIODIC TEST -1(TO BE TAKEN IN JULY .)

SYLLABUS INDICATED ABOVE AT THE END OF CHAPTER NAME BY (P.T. 1)

HALF YEARLY EXAM - ALL CHAPTERS OF TERM 1 .

TERM -2 (P.T.- 2 + ANNUAL EXAM)

(OCTOBER TO FEBRUARY)

CHEMISTRY :-

Chapter 3:- ATOMS AND MOLECULES(left part) (P.T. - 2)

Chapter 4:- STRUCTURE OF ATOM

BIOLOGY:-

Chapter 14:- NATURAL RESOURCES. (P.T. 2)

Chapter 15:- IMPROVEMENT IN FOOD RESOURCES

PHYSICS:-

Chapter 11:- WORK ENERGY AND POWER. (P.T. 2)

Chapter 12:- SOUND

PERIODIC TEST- 2 (TO BE TAKEN IN DECEMBER)

SYLLABUS INDICATED ABOVE AT THE END OF CHAPTER NAME BY (P.T. 2)

ANNUAL EXAM :- (TO BE TAKEN IN FEBRUARY & MARCH)

SYLLABUS: - ALL CHAPTERS OF TERM 2 & FEW CHAPTERS OF TERM 1

Note :-

**ALL PRACTICALS WILL BE DEMONSTRATED ,WHEN SCHOOL
WILL REOPEN**

PRACTICALS

(30 Periods)

Practicals should be conducted alongside the concepts taught in theory classes.

(LIST OF EXPERIMENTS)

1. Preparation of:
 - a) a true solution of common salt, sugar and alum
 - b) a suspension of soil, chalk powder and fine sand in water
 - c) a colloidal solution of starch in water and egg albumin/milk in water and distinguish between these on the basis of
 - transparency
 - filtration criterion
 - stability
2. Preparation of
 - a) A mixture
 - b) A compoundusing iron filings and sulphur powder and distinguishing between these on the basis of:
 - (i) appearance, i.e., homogeneity and heterogeneity
 - (ii) behaviour towards a magnet
 - (iii) behaviour towards carbon disulphide as a solvent
 - (iv) effect of heat
3. Separation of the components of a mixture of sand, common salt and ammonium

chloride (or camphor).

4. Perform the following reactions and classify them as physical or chemical changes:
 - a) Iron with copper sulphate solution in water
 - b) Burning of magnesium ribbon in air
 - c) Zinc with dilute sulphuric acid
 - d) Heating of copper sulphate crystals
 - e) Sodium sulphate with barium chloride in the form of their solutions in water
5. Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells & to record observations and draw their labeled diagrams.
6. Identification of Parenchyma, collenchyma and Sclerenchyma tissues in plants, striped, smooth and cardiac muscle fibers and nerve cells in animals, from prepared slides. Draw their labeled diagrams.
7. Determination of the melting point of ice and the boiling point of water.
8. Verification of the Laws of reflection of sound.
9. Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder.
10. Establishing the relation between the loss in weight of a solid when fully immersed in
 - a) Tap water
 - b) Strongly salty water with the weight of water displaced by it by taking at least two different solids.
11. Determination of the speed of a pulse propagated through a stretched string/slinky(helical spring).
12. Study of the characteristics of *Spirogyra*, *Agaricus*, Moss, Fern, Pinus (either with male or female cone) and an Angiospermic plant. Draw and give two identifying features of the groups they belong to.
13. Observe the given pictures/charts/models of earthworm, cockroach, bony fish and bird. For each organism, draw their picture and record:
 - a) one specific feature of its phylum.
 - b) one adaptive feature with reference to its habitat.
14. Verification of the law of conservation of mass in a chemical reaction.
15. Study of the external features of root, stem, leaf and flower of monocot and dicot plants.