

CLASS 10th Entrance SYLLABUS

Class 9 – NCERT Mathematics Syllabus (with Topics & Sub-topics)

÷ Section 1: Mathematics (40 MCQs)

1. Number Systems

Real Numbers

Irrational numbers

2. Polynomials

Polynomials in one variable

Types of polynomials

Remainder theorem and factor theorem

3. Linear Equations in Two Variables

Solution of a linear equation

Applications of linear equations in real life

4. Lines and Angles

Angle sum property of a triangle

Properties of angles formed by parallel lines and a transversal

5. Triangles

Properties of triangle sides and angles

6. Quadrilaterals

Properties of a parallelogram

Mid-point theorem

7. Areas of Parallelograms and Triangles

Area of parallelograms and triangles
using base and height AND triangle
properties

8. Circles

Definitions (chord, arc, segment, sector,
etc.)

Angle subtended by a chord at a point

Perpendicular from center to a chord

Circle through three points

9. Surface Areas and Volumes

Surface area and volume of cube, cone
cylinder, and hemisphere


10. Statistics

Collection and presentation of data

Bar graphs, Mean, median

11. Probability

Basic concepts of probability
Simple problems based on equally likely
outcomes

 Section 2: Science & Environmental
Awareness (30 MCQs)

Class 9 – NCERT Science Syllabus (with
Topics & Sub-topics)

Unit I: Matter – Its Nature and Behavior

1. Matter in Our Surroundings

Properties of solids, liquids, gases

2. Is Matter Around Us Pure?

Compounds and elements

Mixtures and their types

3. Atoms and Molecules

Laws of chemical combination

Dalton's atomic theory

Chemical formulas

4. Structure of the Atom

Electrons, protons, neutrons

Atomic number and mass number

Isotopes and isobars

Models of atom (Thomson, Rutherford, Bohr)

Unit II: Organization in the Living World

1. The Fundamental Unit of Life

Cell structure and function

Cell organelles

Plant vs animal cells

2. Tissues

Plant tissues: meristematic, permanent

Animal tissues: epithelial, connective
muscular, nervous

Unit III: Motion, Force and Work

1. Motion

Distance and displacement

Speed, velocity, acceleration

Equations of motion

2. Force and Laws of Motion

Newton's laws of motion

Law of conservation of momentum

3. Gravitation

Archimedes' principle

4. Work and Energy
Work done by a force
Power and energy
Kinetic and potential energy
5. Sound
Speed of sound
Reflection of sound
Echo, reverberation
Hearing range, SONAR

Unit IV: Our Environment

1. Why Do We Fall Ill?
Infectious and non-infectious diseases
Disease and its causes and its Prevention
and treatment
2. Natural Resources
Water cycle, nitrogen cycle, carbon cycle
Pollution and conservation

Section 3: English Language (30 MCQs)

Assessing grammar, vocabulary, and reading comprehension.

English Topics:

Articles - a, an, the

Prepositions - in, into, to, for, up to
on, of, between, among, by, with, from

Antonyms and Synonyms

Direct and Indirect Speech

Unseen Passage - Reading comprehension

Tenses - Identification and correct usage

