



Saupin's School

(Chandigarh)

Notice for Class IX

CIRCULAR No. SS/CHD/2026/25

Date: 14.07.2026

Dear Parent

Please find below the syllabus at advance level for Maths and Science

ADVANCED MATHS

1. Sets

Introduces the language of mathematics through collections of well-defined objects called sets. Students learn set representation, operations, and Venn diagrams for logical problem-solving.

2. Logarithms

Explores logarithms as the inverse of exponents, making complex calculations involving large and small numbers simpler. Students learn logarithmic laws and their applications.

3. Relations and Functions

Introduces relations between sets and the concept of functions as special types of relations. Students learn to identify, represent, and analyse different types of functions.

4. Coordinate Geometry – 3D

Extends coordinate geometry from two dimensions to three dimensions using the x-, y-, and z-axes. Students learn to locate points in space and understand basic spatial relationships.

5. Combinatorics

Develops systematic methods of counting without listing all possibilities. Students explore the fundamental counting principle, permutations, and combinations to solve real-life counting problems.

6. Exploring Some More Progressions

Builds on arithmetic progressions by introducing other types of number sequences and patterns. Students investigate their properties and applications in mathematics and everyday life.

ADVANCED SCIENCE

1. Measurement – Foundation of Science

Students will explore the principles of standardization, scientific units, and precision measurement techniques essential for rigorous experimental science.

2. Understanding Motion through Experience

This chapter introduces the fundamentals of kinematics, analyzing displacement, velocity, and acceleration through observable physical phenomena.

3. Newton's Laws of Motion

Students will study classical dynamics, examining how force, mass, inertia, and action-reaction pairs govern the behavior of physical bodies.

4. The Geometry of Power – Advanced Simple Machines

This unit analyzes the geometric mechanics and mechanical advantage of machine systems designed to optimize force and work output.

5. Work and Energy

Students will investigate the mathematical relationships between work, kinetic and potential energy, and the law of conservation of energy.

6. Structure of Atom

This chapter explores atomic theory, detailing the configuration of subatomic particles (protons, neutrons, and electrons) and the evolution of atomic models.

7. Chemical Bonding

Students will examine how atoms interact to achieve stability, focusing on the mechanics of ionic, covalent, and metallic bonds.

8. Mixtures and their Separation

This unit focuses on the chemical properties of homogeneous and heterogeneous mixtures, and the physical techniques (such as filtration and distillation) used to isolate their components.

9. Microscope and Microscopy

Students will study optical magnification, refraction, and the practical techniques required to operate microscopes for cellular analysis.

10. Engineering Life: Miracles in Biotechnology

This chapter introduces the principles of genetic engineering, cellular manipulation, and the practical applications of modern biotechnology in medicine and agriculture.

Mathematics Advanced and Science Advanced: will be optional, and meant for students who wish to study additional topics beyond the common syllabus. The details are as follows:

Subject	Nature	Syllabus	Assessment
Mathematics	Compulsory (to be studied by all students)	Common standard Content	80 marks (School-based Annual in Class IX of 2026-27 onwards /Board Examination in Class X of 2027-28 onwards); 3hrs duration
Science	Compulsory (to be studied by all students)	Common standard Content	80 marks (School-based Annual in Class IX of 2026-27 onwards /Board Examination in Class X of 2027-28 onwards); 3hrs duration
Paper	Nature	Syllabus	Assessment
Mathematics Advanced	Optional	Additional Content	25 marks (Board Examination in Class X of 2027-28 and onwards); 1 hr duration; all HOTS questions
Science Advanced	Optional	Additional Content	25 (Board Examination in Class X of 2027-28 and onwards); 1 hr duration; all HOTS questions

A candidate securing 50 % and above marks for the optional Advanced Examination shall have the following recorded in the marksheet of the Board Exam. '*The Advanced Level has been successfully cleared.*' (This text is tentative and may vary). However, the marks obtained in the Advanced Examination shall not be added to the overall aggregate or total score. In case a candidate secures less than the prescribed criteria, no reference to the Advanced Level shall be reflected in the marksheet of the board exams.

(Surita Sharma)
Principal