CLASS 12 MATHEMATICS — LO's Aligned Monthly Split-up Syllabus (April 2026–March 2027) + Portion Boundaries + Exams + Weightage + Question Paper Design + Blueprint
(For CM SoE & Non-CM SoE)
Developed by:- Jharkhand Council Of Educational Research & Training (Curriculum Division)

Month	Teaching Days (Available)	NCERT Chapter Titles	Sub-topics / Portion Boundary	LOs (*LO Mapping - IDs) (NCERT Higher Secondary Stage LO - Draft)	Practicals / Activities (Minimum)	Assessment / Exams
Apr 2026	23	MATHS: Chapter 1 Relations and Functions (Complete); MATHS: Chapter 2 Inverse Trigonometric Functions (2.1–2.2)	Chapter 1: 1.1 Introduction; 1.2 Types of Relations; 1.3 Types of Functions; 1.4 Composition of Functions and Invertible Function. Chapter 2: 2.1 Introduction; 2.2 Basic Concepts.	LO-MATH-XII-01, LO-MATH-XII-02	Activity (Math Lab): mapping relations/functions using arrow diagrams & mapping diagrams; Practice: NCERT examples + exercises (Chapter 1).	Project RAIL (April portion): 04-05-2026
May 2026	14	MATHS: Chapter 2 Inverse Trigonometric Functions (Complete); MATHS: Chapter 3 Matrices (3.1–3.4)	Chapter 2: 2.3 Properties of Inverse Trigonometric Functions. Chapter 3: 3.1 Introduction; 3.2 Matrix; 3.3 Types of Matrices; 3.4 Operations on Matrices.	LO-MATH-XII-02, LO-MATH-XII-03	Activity (Math Lab): verification of identities / properties using calculator/graphing; Practice: NCERT examples + exercises (Chapter 2).	Project RAIL (May portion): 15-06-2026
Jun 2026	12	MATHS: Chapter 3 Matrices (3.5–3.7); MATHS: Chapter 4 Determinants (4.1–4.4)	Chapter 3: 3.5 Transpose of a Matrix; 3.6 Symmetric and Skew Symmetric Matrices; 3.7 Invertible Matrices. Chapter 4: 4.1 Introduction; 4.2 Determinant; 4.3 Area of a Triangle; 4.4 Minors and Cofactors.	LO-MATH-XII-03, LO-MATH-XII-04	Activity (Math Lab): applications of matrices in solving simple systems; Worksheet practice (Matrices + Determinants basics).	Project RAIL (June portion): 06-07-2026
Jul 2026	23	MATHS: Chapter 4 Determinants (4.5–4.6); MATHS: Chapter 5 Continuity and Differentiability (Complete); MATHS: Chapter 6 Application of Derivatives (6.1–6.2)	Chapter 4: 4.5 Adjoint and Inverse of a Matrix; 4.6 Applications of Determinants and Matrices. Chapter 5: 5.1 Introduction; 5.2 Continuity; 5.3 Differentiability; 5.4 Exponential and Logarithmic Functions; 5.5 Logarithmic Differentiation; 5.6 Derivatives of Functions in Parametric Forms; 5.7 Second Order Derivative. Chapter 6: 6.1 Introduction; 6.2 Rate of Change of Quantities.	LO-MATH-XII-04, LO-MATH-XII-05	Activity (Math Lab): determinant inverse verification; continuity and differentiability concept drill; rate-of-change graph interpretation; NCERT examples and worksheet practice.	Project RAIL (July portion): 03-08-2026
Aug 2026	22	MATHS: Chapter 6 Application of Derivatives (6.3–6.4); MATHS: Chapter 7 Integrals (7.1–7.6)	Chapter 6: 6.3 Increasing and Decreasing Functions; 6.4 Maxima and Minima. Chapter 7: 7.1 Introduction; 7.2 Integration as an Inverse Process of Differentiation; 7.3 Methods of Integration; 7.4 Integrals of Some Particular Functions; 7.5 Integration by Partial Fractions; 7.6 Integration by Parts.	LO-MATH-XII-05, LO-MATH-XII-06, LO-MATH-XII-11	Activity (Math Lab): optimisation / maxima-minima in real-life contexts; standard integrals and methods practice; mixed practice (Ch 1–7) for Half Yearly.	Half Yearly Examination: 07-09-2026 to 12-09-2026 (covers Apr–Aug taught portion)
Sep 2026	14	MATHS: Chapter 7 Integrals (7.7–7.10); MATHS: Chapter 8 Application of Integrals (Complete); MATHS: Chapter 9 Differential Equations (9.1–9.2)	Chapter 7: 7.7 Definite Integral; 7.8 Fundamental Theorem of Calculus; 7.9 Evaluation of Definite Integrals by Substitution; 7.10 Some Properties of Definite Integrals. Chapter 8: 8.1 Introduction; 8.2 Area under Simple Curves. Chapter 9: 9.1 Introduction; 9.2 Basic Concepts.	LO-MATH-XII-06, LO-MATH-XII-07, LO-MATH-XII-08	Activity (Math Lab): definite integral properties; graph-based area problems; formation and basic concepts of differential equations; post-Half-Yearly remedial worksheet.	Project RAIL (September portion): 05-10-2026
Oct 2026	21	MATHS: Chapter 9 Differential Equations (9.3–9.4); MATHS: Chapter 10 Vector Algebra (Complete); MATHS: Chapter 11 Three Dimensional Geometry (Complete)	Chapter 9: 9.3 General and Particular Solutions of a Differential Equation; 9.4 Methods of Solving First Order, First Degree Differential Equations. Chapter 10: 10.1 Introduction; 10.2 Some Basic Concepts; 10.3 Types of Vectors; 10.4 Addition of Vectors; 10.5 Multiplication of a Vector by a Scalar; 10.6 Product of Two Vectors. Chapter 11: 11.1 Introduction; 11.2 Direction Cosines and Direction Ratios of a Line; 11.3 Equation of a Line in Space; 11.4 Angle between Two Lines; 11.5 Shortest Distance between Two Lines.	LO-MATH-XII-08, LO-MATH-XII-09, LO-MATH-XII-10	Activity (Math Lab): differential-equation solving drills; vector visualisation and operations; 3D line orientation / shortest distance worksheets; board-pattern mixed practice.	Project RAIL (October portion): 02-11-2026

CLASS 12 MATHEMATICS — LO's Aligned Monthly Split-up Syllabus (April 2026–March 2027) + Portion Boundaries + Exams + Weightage + Question Paper Design + Blueprint (For CM SoE & Non-CM SoE)

Developed by:- Jharkhand Council Of Educational Research & Training (Curriculum Division)

Nov 2026	16	MATHS: Chapter 12 Linear Programming (Complete); MATHS: Chapter 13 Probability (Complete); Appendix 1: Proofs in Mathematics; Appendix 2: Mathematical Modelling; Full syllabus consolidation	Chapter 12: 12.1 Introduction; 12.2 Linear Programming Problem and its Mathematical Formulation. Chapter 13: 13.1 Introduction; 13.2 Conditional Probability; 13.3 Multiplication Theorem on Probability; 13.4 Independent Events; 13.5 Bayes' Theorem. Appendix 1: A.1.1 Introduction; A.1.2 What is a Proof? Appendix 2: A.2.1 Introduction; A.2.2 Why Mathematical Modelling?; A.2.3 Principles of Mathematical Modelling. Consolidation: full-syllabus worksheet sets and doubt clearance.	LO-MATH-XII-11, LO-MATH-XII-12	Activity (Math Lab): graphical solution of LPP; probability experiments and tree diagrams; proof/model-building discussion; portfolio/project file completion and full-syllabus practice.	Syllabus completion target for Class 12: Nov 2026
Dec 2026	15	Full Syllabus Practice + Pre-Board Examination	Full syllabus revision (Ch 1–13) + sample papers + previous year questions (as applicable).	LO-MATH-XII-01, LO-MATH-XII-02, LO-MATH-XII-03, LO-MATH-XII-04, LO-MATH-XII-05, LO-MATH-XII-06, LO-MATH-XII-07, LO-MATH-XII-08, LO-MATH-XII-09, LO-MATH-XII-10, LO-MATH-XII-11, LO-MATH-XII-12	Pre-Board oriented practice (full syllabus) + error log + targeted remediation.	Pre-Board + Remedial + Practice: 07-12-2026 to 12-12-2026 (Full syllabus)
Jan 2027	17	Revision + Sample Papers + Previous Year Questions + Pre-Board-II / Mock Test (Full syllabus)	Complete syllabus revision through chapter/unit-wise recap and mixed board-pattern practice; focus on weak areas identified in Pre-Board, answer presentation, time management and concept retention.	LO-MATH-XII-01, LO-MATH-XII-02, LO-MATH-XII-03, LO-MATH-XII-04, LO-MATH-XII-05, LO-MATH-XII-06, LO-MATH-XII-07, LO-MATH-XII-08, LO-MATH-XII-09, LO-MATH-XII-10, LO-MATH-XII-11, LO-MATH-XII-12	Weekly timed mock tests + item-wise analysis + doubt clearance + targeted remediation.	Pre-Board-II / Mock Test (Full syllabus): as per Board/school schedule
Feb 2027	18	Board Examination Preparation / Board Examination	Final revision and examination readiness; mixed practice of important terms, diagrams / numericals / source-based / case-based / application questions as applicable to the subject.	LO-MATH-XII-01, LO-MATH-XII-02, LO-MATH-XII-03, LO-MATH-XII-04, LO-MATH-XII-05, LO-MATH-XII-06, LO-MATH-XII-07, LO-MATH-XII-08, LO-MATH-XII-09, LO-MATH-XII-10, LO-MATH-XII-11, LO-MATH-XII-12	Rapid revision sheets + oral viva / practical / project support (where relevant) + teacher feedback.	Board Examination (as per Board schedule)
Mar 2027	20	Board Examination (continued, if applicable) / Post-exam Academic Support	Board examination continuation / light post-exam academic engagement, bridge work, reading / enrichment / record completion as applicable.	LO-MATH-XII-01, LO-MATH-XII-02, LO-MATH-XII-03, LO-MATH-XII-04, LO-MATH-XII-05, LO-MATH-XII-06, LO-MATH-XII-07, LO-MATH-XII-08, LO-MATH-XII-09, LO-MATH-XII-10, LO-MATH-XII-11, LO-MATH-XII-12	Bridge activities / portfolio / reading enrichment / feedback.	Board Examination / Post-exam school support (as applicable)

LOs (*LO Mapping - IDs) (NCERT Higher Secondary Stage LO - Draft)

LO ID	LOs (*LO Mapping - IDs) (NCERT Higher Secondary Stage LO - Draft)
LO-MATH-XII-01	identifies different types of relations and functions.
LO-MATH-XII-02	explores the values of different inverse trigonometric functions.
LO-MATH-XII-03	evolves the idea of matrices as a way of representing and simplifying mathematical concepts.
LO-MATH-XII-04	evaluates determinants of different square matrices using their properties.
LO-MATH-XII-05	demonstrates ways to relate differentiability and continuity of a function with each other.
LO-MATH-XII-06	develops the processes in integral calculus based on the ideas of differential calculus learnt earlier.
LO-MATH-XII-07	applies the concepts of integral calculus to calculate the areas enclosed by curves.
LO-MATH-XII-08	develops the concepts of differential equations using the ideas of differential and integral calculus.
LO-MATH-XII-09	constructs the idea of vectors and their properties and relates them to earlier learnt concepts in geometry and coordinate geometry.

CLASS 12 MATHEMATICS — LO's Aligned Monthly Split-up Syllabus (April 2026–March 2027) + Portion Boundaries + Exams + Weightage + Question Paper Design + Blueprint (For CM SoE & Non-CM SoE)

Developed by:- Jharkhand Council Of Educational Research & Training (Curriculum Division)

LO-MATH-XII-10	evolves newer concepts in three-dimensional geometry from that learnt earlier, in the light of vector algebra, such as direction cosines and equations of lines and planes under different conditions.
LO-MATH-XII-11	formulates and solves problems related to maximization/minimization of quantities in daily life situations using systems of inequalities/inequations learnt earlier.
LO-MATH-XII-12	calculates conditional probability of an event and uses it to evolve Bayes' theorem and multiplication rule of probability.
LO-MATH-XII-13	determines mean and variance of a probability distribution using the concept of random variable.

A. THEORY BLUEPRINT

S.No.	Unit / Block	Marks	Details / Scope
1	Unit I — Relations and Functions	8	
2	Unit II — Algebra	10	
3	Unit III — Calculus	35	
4	Unit IV — Vectors and Three-Dimensional Geometry	14	
5	Unit V — Linear Programming	5	
6	Unit VI — Probability	8	
	TOTAL	80	One Theory Paper

B. QUESTION PAPER DESIGN / BLUEPRINT

CLASS 12 MATHEMATICS — LO's Aligned Monthly Split-up Syllabus (April 2026–March 2027) + Portion Boundaries + Exams + Weightage + Question Paper Design + Blueprint (For CM SoE & Non-CM SoE)

Developed by:- Jharkhand Council Of Educational Research & Training (Curriculum Division)

Competency / Domain	Marks	Weightage
Remembering and Understanding	44	55%
Applying	20	25%
Analysing, Evaluating and Creating	16	20%
TOTAL	80	100%

C. TYPOLOGY OF QUESTIONS	
Item	**Details**
Paper Design Note	No chapter-wise weightage. Care is to be taken to cover all chapters.
Internal Choice	There will be no overall choice in the question paper; however, 33% internal choices are given in all sections.

D. INTERNAL ASSESSMENT BLUEPRINT — 20 MARKS			
S.No.	**Component**	**Marks**	**Details**
1	Periodic Tests (Best 2 out of 3 tests)	10	
2	Mathematics Activities	10	
	TOTAL INTERNAL ASSESSMENT	20	