ST. THOMAS SCHOOL, SAHIBABAD
SYLLABUS (2021 – 2022)
MATHEMATICS
CLASS – IX

Name of the book: **MATHEMATICS – TEXTBOOK FOR CLASS – IX**
Name of the Publisher: **NCERT**

Periodic Test – 1 **MM: 20**

S. NO.	CHAPTR NUMBER	Name Of the Month	Name of the Chapter
1.	Ch -1	April	Number Systems
2.	Ch - 2	May	Polynomials

SUBJECT ENRICHMENT ACTVITIES

1. To construct a square root spiral.

2. To verify algebraic identity $a^2 - b^2 = (a + b)(a - b)$

3. Geometrical representation of factorization of a quadratic polynomial $x^2 + 5x + 6$

Periodic Test – 2/ HALF YEARLY EXAMINATION **MM: 40**

S. NO.	CHAPTER NUMBER	Name Of the Month	Name of the Chapter
1.	Ch – 1	April	Number Systems
2.	Ch – 3	July	Coordinate Geometry
3.	Ch - 4	September	Linear Equations in two variables
4.	Ch – 6	May	Lines and Angles
5.	Ch – 7	August	Triangles
6.	Ch – 12	July	Heron's Formula
7.	Ch - 14	August	Statistics

SUBJECT ENRICHMENT ACTVITIES

4. To obtain the mirror image of a given geometrical figure with respect to x axis and y axis.

5. To represent linear equation in two variables graphically.

Class IX (2021 – 22)

First Term

S. NO.	UNIT NAME	MARKS
1.	**NUMBER SYSTEMS (Number systems)**	**8**
2.	**ALGEBRA(linear equation in two variables)**	**5**
3.	**COORDINATE FEOMETRY(Coordinate geometry)**	**4**
4.	**GEOMETRY(Lines and angles, Triangles)**	**13**
5.	**MENSURATION(Herons Formula)**	**4**
6.	**STATISTICS AND PROBABILITY(Statistics)**	**6**
	Total	**40**
	INTERNAL ASSESSMENT	**10**
	TOTAL	**50**

INTERNAL ASSESSMENT	MARKS
Periodic Tests	**3**
Multiple Assessments	**2**
Portfolio	**2**
Student Enrichment Activities – Practical Work	**3**
TOTAL	**10**

CHAPTER	DETAILED SYLLABUS FOR TERM I
Number Systems	Review of representation of natural numbers, integers, and rational numbers on the number line. Rational numbers as recurring/terminating decimals. Operations on real numbers. Examples of non-recurring/non-terminating decimals. Existence of irrational numbers such as $\sqrt{2}$, $\sqrt{3}$ and their representation on the number line. Rationalization of real numbers of the type $\frac{1}{a+b\sqrt{x}}$ and $\frac{1}{\sqrt{x}+\sqrt{y}}$ (and their combinations) where x and y are natural numbers and a and b are integers. Recall of laws of exponents with integral powers. Rational exponents with positive real bases (to be done by particular cases, allowing learner to arrive at the general laws).
Coordinate Geometry	The Cartesian plane, coordinates of a point, names and terms associated with coordinate plane, notations and plotting points in the plane.
Linear Equations in Two Variables	Recall of linear equations in one variable. Introduction to the equations in two variables. Focus on linear equations of the type ax + by + c = 0. Explain that a linear equation in two variables has infinitely many solutions and justify their being written as ordered pairs or real numbers, plotting them and showing that they lie on a line. Graph of linear equations in two variables. Examples and problems from real life with algebraic and graphical solutions being done simultaneously.
Lines and Angles	1. (Motivate) If a ray stands on a line, then the sum of the two adjacent angles so formed is 180° and the converse. 2. (Prove) If two lines intersect, vertically opposite angles are equal. 3. (Motivate) Results on corresponding angles, alternate angles, interior angles when a transversal intersects two parallel lines. 4. (Motivate) Lines which are parallel to a given line are parallel. 5. (Prove) The sum of the angles of a triangle is 180°. 6. (Motivate) If a side of a triangle is produced, the exterior angle so formed is equal to the sum of the two interior opposite angles.
Triangles	1. (Motivate) Two triangles are congruent if any two sides and the included angle of one triangle are equal to any two sides and the included angle of the other triangle (SAS Congruence). 2. (Motivate) Two triangles are congruent if any two angles and the included side of one triangle are equal to any two angles and the included side of the other triangle (ASA Congruence). 3. (Motivate) Two triangles are congruent if the three sides of one triangle are equal to three sides of the other triangle (SSS Congruence). 4. (Motivate) Two right triangles are congruent if the hypotenuse and a side of one triangle are equal to the hypotenuse and a side of the other triangles (RHS Congruence). 5. (Prove) The angles opposite to equal sides of a triangle are equal. 6. (Motivate) The sides opposite to equal angles of a triangle are equal.
Heron's Formula	Area of a triangle using Heron's Formula (without proof).
Statistics	Introduction to Statistics: Collection of data, presentation of data – tabular form, ungrouped/grouped, bar graphs, histograms.

English Language & Literature (Code No. 184)
Class IX (2021-22)
Term wise Syllabus
Term – I & Half-Yearly

Reading

Question based on the following kinds of unseen passages to assess inference, evaluation, vocabulary, analysis and interpretation:

1. Discursive passage (400-450 words)
2. Case based Factual passage (with visual input/ statistical data/ chart etc. 200-250 words)

Writing

1. Descriptive paragraph (Person)
2. Short Story (based on beginning line, outline, cues etc.)

Integrated Grammar (Editing, Gap Filling)

1. Tenses
2. Subject-Verb Concord
3. Modals
4. Determiners
5. Reported Speech
6. Commands and Requests
7. Statements
8. Questions

Literature

Moments

1. The Lost Child
2. The Adventures of Toto
3. In the Kingdom of Fools
4. The Happy Prince

Beehive

Prose

1. The Fun They Had
2. The Sound of Music
3. The Little Girl
4. A Truly Beautiful Mind
5. My Childhood

Poems

1. The Road Not Taken
2. Wind
3. Rain on The Roof
4. A Legend of The Northland

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Class IX SUBJECT: SCIENCE

Term – 1 / Half Yearly Syllabus

TERM – I

Theme: Materials

Unit I: Matter- It's Nature and Behaviour

Chapter – 2 Is matter around us Pure

Nature of matter: Elements, compounds and mixtures. Heterogeneous and homogenous mixtures, colloids and suspensions.

Theme: The World of the Living

Unit II: Organization in the Living World

Chapter – 5 The Fundamental Unit of Life

Cell - Basic Unit of life: Cell as a basic unit of life; prokaryotic and eukaryotic cells, multicellular organisms; cell membrane and cell wall, cell organelles and cell inclusions; chloroplast, mitochondria, vacuoles, endoplasmic reticulum, Golgi apparatus; nucleus, chromosomes - basic structure, number.

Chapter – 6 Tissues

Tissues, Organs, Organ System, Organism:

Structure and functions of animal and plant tissues (only four types of tissues in animals; Meristematic and Permanent tissues in plants).

Theme: Moving Things, People and Ideas

Unit III: Motion, Force and Work

Chapter – 8 Motion

Motion: Distance and displacement, velocity; uniform and non-uniform motion along a straight line; acceleration, distance-time and velocity-time graphs for uniform motion and uniformly accelerated motion, derivation of equations of motion by graphical method; elementary idea of uniform circular motion.

Chapter – 9 Force and Laws of Motion

Force and Newton's laws: Force and Motion, Newton's Laws of Motion, Action and Reaction forces, Inertia of a body, Inertia and mass, Momentum, Force and Acceleration. Elementary idea of conservation of Momentum.

PRACTICALS

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

TERM-I

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**Unit-I: (Chapter -2)**

2. Preparation of

   a) A mixture

   b) A compound

   using 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**Unit-I:(Chapter-2)**

3. 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.

   Unit-I:(Chapter-2)

4. Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells & to record observations and draw their labeled diagrams. **Unit-II:(Chapter-5)**

5. 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. **Unit-II:(Chapter-6)**

Social Science (Code No. 087)
Class IX (2021-22)
Term wise Syllabus
Term – I & PERIODIC TEST-2

(PT –II) Syllabus :

History:
Lesson 1 : French Revolution
Lesson 3 : Nazism and the rise of Hitler

Civics:
Lesson 1: Why Democracy? What Democracy?
Lesson 2: Constitutional Design (India)

Economics:
Lesson 1: The story of Palampur
Lesson 2: People as Resource

Geography:
Lesson 1: India size and location
Lesson 2: Physical Features of India

Term 1 Syllabus (As given by CBSE) :

History:
Lesson 1 : French Revolution

Civics:
Lesson 1: Why Democracy? What Democracy?
Lesson 2: Constitutional Design (India)

Economics:
Lesson 1: The story of Palampur
Lesson 2: People as Resource

Geography:
Lesson 1: India size and location
Lesson 2: Physical Features of India

LIST OF MAP ITEMS (TERM-1)

HISTORY

Chapter-1: The French Revolution

Outline Political Map of France

- Bordeaux
- Nantes
- Paris
- Marseilles

GEOGRAPHY

Chapter -1: India-Size and Location

Map Work: India-States with Capitals, Tropic of Cancer, Standard Meridian

Chapter -2: Physical Features of India

Map Work:

• **Mountain Ranges:** The Karakoram, The Zasker, The Shivalik, The Aravali, The Vindhya, The Satpura, Western & Eastern Ghats

• **Mountain Peaks** – K2, Kanchan Junga, Anai Mudi

• **Plateau -** Deccan Plateau, Chotta Nagpur Plateau, Malwa Plateau

• **Coastal Plains -** Konkan, Malabar, Coromandel & Northern Circar

ST.THOMAS SCHOOL SAHIBABAD

SUBJECT- INFORMATION TECHNOLOGY(402)

CLASS- IX

TERM- I AND PERIODIC TEST II

SYLLABUS (2021-2022)

S.No	Unit Number		Name of the Chapter
1.	1.	SUBJECT SPECIFIC SKILLS	Introduction to IT- ITeS industry
2.	2		Data Entry & Keyboarding Skills
3.	3.		Digital Documentation
4.	1.	EMPLOYABILITY SKILLS	Communication Skills-I
5.	2.		Self-Management Skills-I
6.	3.		ICT Skills-I

हिंदी पाठ्यक्रम - अ (कोड सं. - 002) कक्षा 9वीं हिन्दी अ -परीक्षा हेतु पाठ्यक्रम विनिर्देशन 2021-22

पी.टी.-2 / परीक्षा भार विभाजन प्रथम सत्र				
		विषयवस्तु	**उप भार**	**कुलभार**
1	निम्नलिखित से चिंतन क्षमता एवं अभिव्यक्ति कौशल पर आधारित बहुविकल्पी प्रश्न।			10
	एक अपठित गद्यांश 150 से 200 शब्दों का (1x5=5) विकल्प सहित		5	
	एक अपठित काव्यांश 150 से 200 शब्दों का (1x5=5) विकल्प सहित		5	
2	व्याकरण के लिए निर्धारित विषयों पर विषय-वस्तु का बोध, भाषिक बिंदु /संरचना आदि पर बीस में से सोलह बहुविकल्पी प्रश्नों का उत्तर देना होगा (1x16)			16
	1	शब्द निर्माण- उपसर्ग - 2 अंक, प्रत्यय - 2 अंक, समास - 4 अंक	8	
	2	अर्थ की दृष्टि से वाक्य भेद 4 अंक	4	
	3	अलंकार - (शब्दालंकार: अनुप्रास, यमक, श्लेष) (अर्थालंकार : उपमा, रूपक, उत्प्रेक्षा, अतिशयोक्ति, मानवीकरण)	4	
3	पाठ्यपुस्तक क्षितिज भाग - 2			14
	अ	गद्य खंड	7	
	1	क्षितिज से निर्धारित पाठों में से गद्यांश के आधार पर विषय-वस्तु का ज्ञान बोध, अभिव्यक्ति आदि पर पाँच बहुविकल्पी प्रश्न पूछे जाएंगे। (1x5)	5	
	2	क्षितिज से निर्धारित गद्य पाठों के आधार पर विद्यार्थियों की उच्च चिंतन क्षमताओं एवं अभिव्यक्ति का आकलन करने हेतु दो बहुविकल्पीय प्रश्न पूछे जाएंगे। (1x2)	2	
	ब	काव्य खंड	7	
	1	क्षितिज से निर्धारित कविताओं में से काव्यांश के आधार पर पाँच बहुविकल्पीय प्रश्न पूछे जाएंगे (1x5)	5	
	2	क्षितिज से निर्धारित कविताओं के आधार पर विद्यार्थियों का काव्य बोध परखने हेतु दो बहुविकल्पीय प्रश्न पूछे जाएंगे। (1x2)	2	
		आंतरिक मूल्याङ्कन		10
	अ	**सामयिक आकलन**	2.5	
	ब	**बहुविध आकलन**	2.5	
	स	**पोर्टफोलियो**	2.5	
	द	**श्रवण एवं वाचन**	2.5	
		कुल		50

सत्र-1 2021-22 में निम्नलिखित पाठ सम्मिलित किए गए हैं – पाठ्यपुस्तक क्षितिज भाग -1

गद्य - खंड	काव्य - खंड
प्रेमचंद - दो बैलों की कथा	कबीर - साखियाँ और सबद (पद) 1 (मोकों कहाँ ढूँढे बंदे..)
राहुल सांकृत्यायन - ल्हासा की ओर	ललद्यद - वाख
	रसखान – सवैये