CLASS 8 BIOLOGY SYLLABUS FOR 2022 <u>MID TERM</u>

UNIT	CHAPTER
1. Transport in Plants	1 - Transport in Plants
2. Life Processes	2 - Reproduction in Plants
3. Ecosystems	4 - Ecosystems
4. Human Body	5 – Endocrine System and Adolescence
5. Health and Hygiene	8 – Diseases and First Aid

FINAL TERM

UNIT	CHAPTER
2. Life Processes	3 – Reproduction in Humans
4. Human Body	6 – The Circulatory System
	7 – Nervous System
6. Food Production	9 – Food Production
4. Human Body	5 – Endocrine System and Adolescence
	(Repeated from Mid Term)

SYLLABUS FOR YEAR 2022

SUBJCET: COMPUTER APPLICATIONS CLASS: 8

	MID TERM		
SL NO	CHAPTER	TOPICS	
1	CHAPTER 1: Operating System and Graphical User Interface	Need of an OS, Evolution of OS, Role of an OS, Functions of an OS, Modes of an OS, Classification of an OS, Character User Interface - MS_DOS, its features, booting in MS-DOS; Graphical User Interface - Windows, its features, advantages of Windows; Exploring windows; Warm booting and Cold booting.	
2	CHAPTER 2: Spreadsheet: Functions and Charts	Range of cells, Selecting range of cells partially, row, column, entire sheet; Naming a sheet tab, renaming a sheet tab, deleting a sheet tab, cell references - relative, absolute and mixed; Functions used in MS Excel - SUM(), AVERAGE(), MIN(), MAX(), COUNT(); Creating charts in MS Excel.	
3	CHAPTER 3: Algorithms and Flowcharts	Algorithm, its characteristics, steps to develop an algorithm, examples of algorithms; Flowcharts, its features, symbols used in flowchart, examples of flowcharts.	
4	CHAPTER 6: Network	Communication system, transmission media, transmission signal, Communication Protocol, Network Topology, Computer Network, FTP, Uploading files, downloading files, sharing files	

	FINAL TERM		
SL NO	CHAPTER	TOPICS	
1	CHAPTER 4: Program coding : unit I	Need for computer programming, introduction to java, basic features of java, compiler and interpreter	
2	CHAPTER 4: Program coding : unit II	Operators in java, basic structure of java program, comments in java, output statement in java, BlueJ, Input in java	
3	CHAPTER 4: Program coding : unit III	Flow of control in java, types of errors in a java program, basic mathematical functions in java, simple java programs	
4	CHAPTER 5: APP DEVELOPMENT	App development, Working with apps,types of app, Simple App development, Creating an app using app development website	

Class 8 History and Civics Syllabus 2022

MID TERM

Chapter 1: A Period of Transition

Unit 1: Sources-Primary and Secondary

Unit 2: The Industrial Revolution

Unit 3: Why England (points 1,4 and 5)

Unit 4: Major Inventions

Unit 5: Impact of the Industrial Revolution

Unit 6: Imperialism

Unit 7: Impact of Imperialism

No of Periods-6

Chapter 2: The French Revolution

Unit 1: Causes - Political, Social and Influence of the American war of Independence

Unit 2: Events-Storming of the Bastille

Unit 3: Impact of the Revolution

Unit 4: Post Revolution Period (Napoleon Bonaparte)

No of Periods-5

Chapter 4: India in the Eighteenth Century

Unit 1: Decline of the Mughal Empire

-Rivalry among Nobles, Weak Military Administration, Aurangzeb's policies, Foreign Invasions and Weak Successors

Unit 2: Regional Kingdoms- Bengal, Mysore, The Marathas (Rise of the Peshwas)

No of Periods-4

Chapter 5: From Traders to Rulers

Unit 1: English East India Company

Unit 2: Battle of Plassey (1757)

Unit 3: Battle of Buxar (1764)

Unit 4: The Increasing British Influence (Dual Government in Bengal)

No of Periods-5

Chapter 11: The Union Legislature

Unit 1: Organs of the Government and Division of Powers (Union, State and Concurrent Lists)

Unit 2: The Parliament- Lok Sabha- Composition, Term, Procedure for Election, Eligibility,

Speaker

Unit 3: Rajya Sabha-Composition, Term, Eligibility

Unit 4: Functions of the Parliament - Making Laws, Financial Control, Control over Executive

No of Periods-5

Chapter 12: The Union Executive

Unit 1: The President- Eligibility, Election, Term, Powers (Legislative, Executive, Judicial, Financial,

Emergency)

Unit 2: The Vice President- Eligibility, Term, Functions .

• No of Periods -5

FINAL TERM

Chapter 6: British Policies and their Impact

Unit 1: Structure of Administration-Misrule by Company's Officials and The Regulating Act (1773)

Unit 2: Agencies of Administration- the Civil Service and the Army

Unit 3: Economic policies – Permanent settlement, Mahalwari system, Ryotwari system

Unit 4: Industry and Trade-The British period(points 2,3 and 4) and its impact

Unit 5: Transport and Communications (points 1,3 and 6)

No of Periods-5

Chapter 7: The Great Uprising

Unit 1: Causes of the Uprising- Economic (points 1 and 2), Political, Social (points 1 and 3),

Religious, Military (points 1,2 and 4) and Immediate cause (greased cartridges incident)

Unit 2: After the Uprising- changes in administration (points 1,2 and 3) and changes in the Army No of Periods- 4

Chapter 9: India's Freedom Struggle-The First Phase

Unit 1: the Indian National Congress (introduction), the Early Nationalist Phase, the Assertive Nationalist Phase

Unit 2: The Partition of Bengal and Swadeshi and Boycott movement

No of Periods-4

Chapter 10: India's Freedom Struggle- The Second Phase

Unit 1: Mahatma Gandhi, Jallianwalla Bagh Massacre (1919)

Unit 2: Non-cooperation Movement (1920-1922) - Start of the Movement, Constructive programme, Withdrawal of the Movement.

Unit 3: Civil Disobedience Movement (1930-1934)- March to Dandi, Gandhi- Irwin Pact

Unit 4: Quit India Movement (1942) (Cause and Government's response)

No of Periods-7.

Chapter 12: The Union Executive- Unit 3: The Prime Minister-Powers and functions of the PM

Unit 4: Council of Ministers (Categories, Term, Eligibility, Working) and Civil Services

No of Periods-4

Chapter 13: The Judiciary

Unit 1: the Supreme Court- Composition, Appointment, Eligibility, Term

Unit 2: Functions of the Supreme Court- Guardian of the Constitution, Court of Record, Judicial

Unit 3: The High Courts-Composition, Eligibility, Term, Writs

No of Periods-5

Chapter 14: The United Nations organization

Unit 1: Objectives of the UN, Principles of the UN

Unit 2: Principal Organs of the UN- General Assembly, Security Council, International Court of Iustice

No of Periods-3

Chapter 15- Agencies of the United Nations

Unit 1: WHO, UNICEF and UNESCO-functions

No of Periods- 2.

PHYSICS

	TER NUMBER AND	TOPICS TO BE COVERED
1.	MATTER(MID TERM)	Matter, characteristics of molecule, states of matter, molecular model of solids, liquids and gases, change of state, melting, freezing, explanation of melting by molecular model, vaporization or boiling, explanation of vaporization by molecular model, evaporation, rate of evaporation, explanation of evaporation by molecular model, evaporation produces cooling, applications of evaporation, sublimation and deposition, explanation of sublimation by molecular model.
2.	PHYSICAL QUANTITIES AND MEASUREMENT (MID TERM)	Activities. Density, determination of density of a regular and irregular solid, vessels for measuring volume, determination of density of a liquid, density bottle, determination of density of a liquid using the density bottle, relative density, unit of relative density, measurement of relative density of a liquid, density of a substance in its different states, floating and sinking, principle of floatation, applications of floatation. Numericals and activities.
3.	FORCE AND PRESSURE (MID TERM)	Force, unit of force, turning effect of a force, factors affecting the turning of a body, examples of turning effect of a force, moment of force, unit of moment of force, pressure, the effect of thrust, definition of pressure, units of pressure, factors affecting pressure, examples of pressure in our daily life, liquid pressure, factors affecting liquid pressure, consequences of liquid pressure, atmospheric pressure, standard value of atmospheric pressure, examples of atmospheric pressure in daily life. Numericals and activities.
4.	ENERGY(MID TERM)	Work, energy, mechanical energy, potential and kinetic energy, examples of potential and kinetic energy, expression for gravitational potential energy and kinetic energy, conversion of potential energy into kinetic energy, different forms of energy, power. Numericals and activities.
5.	LIGHT AND ENERGY (FINAL TERM)	Speed of light in different media, refraction of light, some terms related to refraction of light, laws of refraction, effects of refraction, early sunrise and late sunset, mirage in a desert, refraction of light through a rectangular glass block, prism, refraction of light through a prism, dispersion of white light, cause of dispersion, spherical mirrors, terms related to spherical mirror, focus and focal length, rules for making ray diagram in a spherical mirror, real and virtual image, images formed by a concave and convex mirror, uses of concave and convex mirror. Activities.
6.	HEAT TRANSFER(FINAL TERM)	Effects of heat, effect of temperature on molecular motion, change of liquid into vapour state: Evaporation and boiling, explanation of evaporation and boiling on the basis of molecular motions, difference

	between evaporation and boiling, thermal expansion, thermal
	expansion in solids, liquids and gases, linear expansion, variation of
	density with temperature.
	Activities.
7. SOUND (FINAL TERM)	Propagation of sound in air, terms related to a wave, representation of
	a wave, characteristics of sound, monotone.
	Numericals and activities.
8. ELECTRICITY(FINAL	Electrical energy and power consumed in a circuit, transmission of
TERM)	power from the power generating station to the consumer, supply of
	power to a house, color coding of live, neutral and earth wires,
	connection from pole to the distribution board, commercial unit of
	electrical energy, electric fuse, characteristics of a fuse, miniature
	circuit breaker, household electrical circuits, electric circuit in a room,
	earthing of the appliances, power rating of appliances, household
	consumption of electrical energy, hazards of electricity, precautions to
	be taken while using electricity.
	Static electricity, kinds of electric charges, conservation of charges,
	conductors and insulators, methods of charging a conductor (
	Conduction and induction), electroscope, types of electroscope(Pith
	ball and gold leaf electroscope), atmospheric electricity, lightning and
	lightning conductor.
	Numericals and activities.

CLASS 8 Mid-Term Syllabus, 2022 English Language

	dirios o Fina Term synastas, 2022 Engin	on Language
	Name of the Chapter	
1.	Kinds of Sentences	
	Declarative Sentence	
	Interrogative Sentence	
	Imperative Sentence	
	Exclamatory Sentence	
2.	Tenses	
	Present Tense- Simple Present, Present Continuous, Pr	resent Perfect, Present Perfect
	Continuous Tense)	
	Past Tense- Simple Past, Past Continuous, Past Perfect,	Past Perfect Continuous
	Tense)	

- 3. Prepositions
- 4. Paragraph Writing
- 5. Comprehension
- 6. Letter Writing (Informal)

CLASS 8 Final-Term Syllabus, 2022 English Language

CLASS 8 Final-Term Syllabus, 2022	English Language
1. Active and Passive Voice	
2. Subject- Verb agreement	
3. Direct and Indirect Speech	
Declarative Sentence	
Interrogative Sentence	
Imperative Sentence	
Exclamatory Sentence	
4. Tenses	
5. Prepositions	
6. Story Writing	
7. Letter Writing (Formal)	
8. Comprehension	

CLASS 8 Mid-Term Syllabus, 2022 English Literature

Name of the chapter		
1.	The Adventures of the Blue	
	Carbuncle	
2.	The Lake Isle of Innisfree	
3.	Set Our Children free	
4.	After Twenty Years	
5.	How Pleasant to Know Mr. lear	

CLASS 8 Final-Term Syllabus, 2022 English Literature

	Name of the chapter
1.	The Shoemaker
2.	Lines Written in Early Spring
3.	Harry Potter learns Quidditch
4.	A Grain of Sand
5.	India's Heroes

CLASS 8 - SYLLABUS - 2022 - GEOGRAPHY

MID TERM

Chapter 1 – Interpreting Topographical Maps (9 classes)

Chapter 2 – Population (7 classes)

Chapter 3 – Migration (7 classes)

Chapter 4 – Urbanization (7 classes)

Chapter – 7 Asia – Location, Extent, Political and Physical Features (8 classes)

Chapter 8 – Asia – Climate and Natural Vegetation (8 classes)

FINAL TERM

Chapter 5 - Natural and Man - Made Disasters (8 classes)

Chapter 6 – Disaster Management (7 classes)

Chapter 9 - India - Location, Extent, Political and Physical Features (9 Classes)

Chapter 10 – India and Natural Vegetation, Forest and Wildlife (8 classes)

Chapter 11 – Human Resources (7 classes)

Marking and labeling various features on Map of India (5 classes)

CLASS 8 - SYLLABUS - 2022 - MATHEMATICS

MID TERM:

Chapters:

- 1. Rational Numbers
- 2. Exponents and Powers
- 3. Squares and Square Roots
- 6. Sets
- 7. Percent and Percentage
- 8. Profit, Loss and Discount
- 11. Algebraic Expression
- 12. Identities
- 16. Understanding shapes
- 20. Area of a Trapezium and a Polygon

FINAL TERM:

- 4. Cubes and Cube Roots
- 9. Interest
- 13. Factorization
- 14. Linear Equations in one variable
- 15. Linear In –equations
- 18. Construction
- 21. Surface area, volume and capacity
- 22. Data Handling
- 23. Probability
- 24. Circle

KEY CONCEPTS

- 1. Rational Numbers
- (i) Addition of Rational Numbers
- (ii) Subtraction of Rational Numbers
- (iii) Multiplication of Rational Numbers
- (iv) Division of Rational Numbers
- (v) Number Line on Rational Numbers
- 2. Exponents and Power
- (i) Laws of Exponents (Product, Quotient, Power laws)
- (ii) More about exponents

$$-(a \times b)^n = a^n \times b^n$$

$$-\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$$

-
$$a^0$$
 = 1; i if a ≠0

$$-a^{0} = 1; i \text{ if } a \neq 0$$

$$-a - m = \frac{1}{am} \text{ and } \frac{1}{a - m} = a^{m} \text{ if } a \neq 0$$

$$-\sqrt[n]{a} = a \sqrt[n]{n} \text{ and } \sqrt[n]{a^{m}} = a \sqrt[m]{n}$$

$$-\sqrt[n]{a} = a^{1/n}$$
 and $\sqrt[n]{a^m} = a^{m/n}$

- 3. Square and Square Roots: (i) To find the square root of a p.s.n (prime factor method)
 - (ii) To find the square root of a p.s.n (by division method)
- 4. Cubes and Cub Roots
- (i) Perfect Cube
- (ii) Cube roots by factorization

6. Sets

- (i) Roster / Tabular form
- (ii) Set builder form
- (iii) Union / Intersection / Compliment
- 7. Percent and Percentage
- (i) Concepts on percent and percentage
- (ii) Increase percent and decrease percent
- 8. Profit, Loss and Discount (i) Concepts on Profit and Loss
 - (ii) Profit percent and loss percent (including overhead expenses only)
 - (iii) Discount and Discount percent
 - (iv) Computation of Tax
 - (v) Goods and Services Tax (GST)
- 9. Interest (Simple and Compound) (i) To find the principle; the rate percent and the time
 - (ii) Compound interest (by simple interest method)
 - (iii) Interest compound half yearly
 - (iv) Compound interest using formulas
- 11. Algebraic Expressions: (i) Degree of a polynomial
 - (ii) Product, factor and coefficient
 - (iii) Combination of like terms
 - (iv) Multiplication of expression
 - (v) Division of expression
 - (vi) Simplification of expressions

12. Identities: (i) $(a \pm b)^2 = a^2 \pm 2ab + b^2$ (ii) $a^2 - b^2 = (a + b) (a - b)$ (iii) $(a+b+c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ca$ 13. Factorization: (i) Factorization by taking out common factors. (ii) Factorization by grouping (iii) Factorization by difference of two squares (iv) Factorization of trinomials 14. Linear Equation in one variable: (i) Solving equations having one variable (ii) Representation of Number Line 16. Understanding Shapes (Polygons) (i) Types of Polygons (ii) Sum of Interior Angles of a Polygon. (iii) sum of Exterior angles of a polygon. (iv) Measurements of regular polygons. (v) Quadrilateral and its properties. 18. Construction (Using ruler and compass only) (i) To construct angles (15°, 30°, 60°, 45°, 90°, 75°, 120°, 135°) (ii) Construction of perpendicular bisector of a line segment (iii) Construction of parallel lines. (iv) Construction of quadrilateral (Rectangle, Square, Rhombus & Parallelogram) 20. Area of a Trapezium and a Polygon: (i) Perimeter and Area of Triangles (ii) Perimeter and Area of Rectangles (iii) Perimeter and Area of Squares, Rhombus, Parallelograms (iv) Circle and its parts (v) Area and circumference of a circle. 21. Surface area volume and Capacity: (i) Total surface area of Cuboid, Cube, Cylinder (Cuboid, Cube and Cylinder) (ii) Curve surface of area of cylinder (iii) Volume of cuboid and cube 22. Data Handling: (i) Raw Data. Array, Data Frequency, Frequency distribution (ii) Class intervals and Class limits (iii) Bar graph and Pie Charts 23. Probability: (i) Concepts on Probability (ii) Sure events / possible events 24. Circle: (i) Circle: Terms associated with circle (ii) Major and minor (Arc, sector)

(iii) Secants and Tangents

(iv) Central angle, Angle in a semicircle

CHEMISTRY SYLLABUS FOR 2022 CLASS-8

Mid Term	
1.	Matter
2.	Physical and Chemical Changes
3.	Elements, compounds and Mixtures
4.	Atomic Structure
5.	Hydrogen

Final Term	
1	Languages of Chemistry
2.	Chemical Reaction
3.	Water
4.	Carbon and its Compounds
5.	Atomic Structure(Repeat from mid term)

KHASI CLASS 8 MIDTERM SYLLABUS 2022

PROSE.

- 1. Ka Laitkynsew
- 2. U Jumai ka 12 tarik ka jylliew 1897
- 3. Ka Kren ha u Lum Lawbah

Grammar.

- 1. Ktien kyntien (Idioms & Phrases)
- 2. Ktien Kynnoh
- 3. Thaw senten (Ktien Kyntien)
- 4. Letter writing (Informal)
- 5. Composition (4)
- 6. Composition (4)

KHASI CLASS 8 FINAL TERM SYLLABUS

PROSE

- 1. U Borsing Syiem Mawsmai bad u Bor Kusain Syiem Jaintia.
- 2. Ka Dorbar jong ki Khasi Hyndai
- 3. Ka longdur Longbriew

Grammar

- 1. Ktien kyntien (Idioms & Phrases)
- 2. Ktien Kynnoh
- 3. Thaw senten (Ktien Kyntien)
- 4. Letter writing (Informal)
- 5. Composition (4)
- 6. Comprehension (4)

ACADEMIC PLANNER HINDI CLASS 8 (2022) MID TERM	
CHAPTER NUMBER AND NAME	TOPICS TO BE COVERED
साहित्य सागर -CHAPTER	
1. चलना हमारा काम है	वर्ण-विच्छेद, पर्यायवाची, भाव वाचक संज्ञा, अनुच्छेद लेखन
2. सगुनी का सपना	पर्याय, उपसर्ग, प्रत्यय, बह्वचन
4. मुक्ति की आकांक्षा	पर्याय, उपसर्ग, कारक, विशेषण, प्रविशेषण
5. आखिरी पत्ती	वर्ण-विच्छेद, अनेकार्थी शब्द-अर्थ, बहुवचन, कारक, 'ने' का
	प्रयोग
7. आज़ादी क्या है ?	पर्याय, अनेकार्थी, भाव वाचक संज्ञा, बहुवचन, सर्वनाम-भेद, वचन
8. हिमालय और हम	वर्ण-विच्छेद, पर्यायवाची, विलोम, विशेषण-विशेष्य
CHAPTERS 3, 6 TO BE INCLUDED	
AS ACTIVITY BASED WORK	
व्याकरण	
निबंध	
अपठित गद्यांश	
पत्र-लेखन	

ACADEMIC PLANNER HINDI CLASS 8 (2022) FINAL TERM	
CHAPTER NUMBER AND NAME	TOPICS TO BE COVERED
साहित्य सागर -CHAPTER	
9. सुभान खां	भावपूर्ण पठन, उर्दू-हिन्दी पर्याय, विलोम, प्रत्यय, सार्वनामिक
	विशेषण, वाक्य शुद्ध करना, विराम चिहन
11. मैं सुमन हूँ	समश्रुत- भिन्नार्थक शब्द, उपसर्ग, वाक्य- भेद, समास- विग्रह
12. सच्चाई का उपहार	कहानी वाचन, पर्याय, विलोम, विशेषण, मुहावरे, समास, भाव
	वाचक संज्ञा
14. सूर के पद	पद का गीतात्मक शैली में पठन, शब्द उच्चारण, तत्सम शब्द,
	अनेकार्थक शब्द, अनुप्रास अलंकार, 'ने' का प्रयोग, वाक्य-
	परिवर्तन
15. समय पर मिलने वाले	संयुक्ताक्षर, पंचम वर्ण, अनुस्वार- अनुनासिक, सर्वनाम भेद,
	वाक्य- निर्माण
16. आधुनिक चित्तौड़ से मेरी	वर्ण-विच्छेद, समानार्थी, उपसर्ग, प्रत्यय, वाच्य- परिवर्तन
मुलाकात	
CHAPTERS 10, 13 AS ACTIVITY	
BASED WORK	
GRAMMAR	निबंध लेखन, पत्र- लेखन, भाव ग्रहण, व्याकरण

CLASS 8 - SYLLABUS - 2022 - MATHEMATICS

MID TERM:

Chapters:

- 1. Rational Numbers
- 2. Exponents and Powers
- 3. Squares and Square Roots
- 4. Cubes and Cube Roots
- 6. Sets
- 7. Percent and Percentage
- 8. Profit, Loss and Discount
- 9. Interest
- 11. Algebraic Expression

FINAL TERM:

- 12. Identities
- 13. Factorization
- 14. Linear Equations in one variable
- 15. Linear In -equations
- 16. Understanding shapes
- 18. Construction
- 20. Area of a Trapezium and a Polygon
- 21. Surface area, volume and capacity
- 22. Data Handling
- 23. Probability
- 24. Circle

KEY CONCEPTS

- 1. Rational Numbers
- (i) Addition of Rational Numbers
- (ii) Subtraction of Rational Numbers
- (iii) Multiplication of Rational Numbers
- (iv) Division of Rational Numbers
- (v) Number Line on Rational Numbers
- 2. Exponents and Power
- (i) Laws of Exponents (Product, Quotient, Power laws)
- (ii) More about exponents

$$-(a \times b)^n = a^n \times b^n$$

$$-(\frac{a}{b})^n = \frac{a^n}{b^n}$$

$$-a^0 = 1; i \text{ if } a \neq 0$$

$$-a - m = \frac{1}{am} \text{ and } \frac{1}{a - m} = a^m \text{ if } a \neq 0$$

$$-\sqrt[n]{a} = a \frac{1}{n} \text{ and } \sqrt[n]{a^m} = a \frac{m}{n}$$

- 3. Square and Square Roots: (i) To find the square root of a p.s.n (prime factor method)
 - (ii) To find the square root of a p.s.n (by division method)
- 4. Cubes and Cub Roots (i) Perfect Cube
 - (ii) Cube roots by factorization
- 6. Sets (i) Roster / Tabular form (ii) Set builder form
 - (iii) Union / Intersection / Compliment
- 7. Percent and Percentage (i) Concepts on percent and percentage
 - (ii) Increase percent and decrease percent

8. Profit, Loss and Discount (i) Concepts on Profit and Loss (ii) Profit percent and loss percent (including overhead expenses only) (iii) Discount and Discount percent (iv) Computation of Tax (v) Goods and Services Tax (GST) 9. Interest (Simple and Compound) (i) To find the principle; the rate percent and the time (ii) Compound interest (by simple interest method) (iii) Interest compound half yearly (iv) Compound interest using formulas 11. Algebraic Expressions: (i) Degree of a polynomial (ii) Product, factor and coefficient (iii) Combination of like terms (iv) Multiplication of expression (v) Division of expression (vi) Simplification of expressions **FINAL TERM 2022** (i) $(a \pm b)^2 = a^2 \pm 2ab + b^2$ 12. Identities: (ii) $a^2 - b^2 = (a + b) (a - b)$ (iii) $(a+b+c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ca$ (i) Factorization by taking out common factors. 13. Factorization: (ii) Factorization by grouping (iii) Factorization by difference of two squares (iv) Factorization of trinomials 14. Linear Equation in one variable: (i) Solving equations having one variable (ii) Representation of Number Line 16. Understanding Shapes (Polygons) (i) Types of Polygons (ii) Sum of Interior Angles of a Polygon. (iii) sum of Exterior angles of a polygon. (iv) Measurements of regular polygons. (v) Quadrilateral and its properties. 18. Construction (Using ruler and compass only) (i) To construct angles (15°, 30°, 60°, 45°, 90°, 75°, 120°, 135°) (ii) Construction of perpendicular bisector of a line segment (iii) Construction of parallel lines. (iv) Construction of quadrilateral (Rectangle, Square, Rhombus & Parallelogram) 20. Area of a Trapezium and a Polygon: (i) Perimeter and Area of Triangles (ii) Perimeter and Area of Rectangles (iii) Perimeter and Area of Squares, Rhombus, Parallelograms (iv) Circle and its parts (v) Area and circumference of a circle. 21. Surface area volume and Capacity: (i) Total surface area of Cuboid, Cube, Cylinder (Cuboid, Cube and Cylinder) (ii) Curve surface of area of cylinder (iii) Volume of cuboid and cube 22. Data Handling: (i) Raw Data. Array, Data Frequency, Frequency distribution (ii) Class intervals and Class limits (iii) Bar graph and Pie Charts 23. Probability: (i) Concepts on Probability (ii) Sure events / possible events

- (i) Circle: Terms associated with circle
- (ii) Major and minor (Arc, sector)
- (iii) Secants and Tangents
- (iv) Central angle, Angle in a semicircle

ART SYLLABUS FOR THE ACADEMIC YEAR 2022 FOR CLASS 8

At the upper primary level, the themes to be dealt with are:

- Form Create artwork using different lines, shapes and sizes of the objects in the immediate surroundings/environment both natural and manmade using various mediums.
- Colour- Understanding and using the characteristics of colour hue, tint, shade.
- Texture- Identifying different surfaces; soft, smooth, hard, rough etc. and incorporating different textures in creating artwork.
- Composition- Draw and paint various compositions on themes such as; landscapes, scenery etc. Nature study and still life.
- Tools and techniques- Use of various brushes, exploring 2-D and 3-D methods and materials, such as; drawing, painting, print making (using vegetables and leaves), collage making, paper craft etc.
- Perspective- Create landscape/cityscape and architecture using age-appropriate perspective skills.
- Art vocabulary- Introduction to significant artists through history and art genres such as; Vincent Van Gogh, Pablo Picasso, Henri Matisse etc.

CRAFT: A total of 4/5 craft making exercises using household items and waste materials.