HHS SCHOOL SYSTEM

SECTION A - O LEVEL STREAM ADMISSION TEST SYLLABUS..... 2
CLASS PRE NURSERY..... 2
CLASS NURSERY..... 2
CLASS PREP..... 3
CLASS I..... 4
CLASS II..... 5
CLASS III..... 6
CLASS IV..... 6
CLASS V..... 7
CLASS VI..... 8
CLASS VII..... 10
CLASS VIII..... 12
CLASS IX..... 14
SECTION B - MATRIC STREAM ADMISSION TEST SYLLABUS..... 16
CLASS PRE NURSERY..... 16
CLASS NURSERY..... 16
CLASS PREP..... 17
CLASS I..... 18
CLASS II..... 19
CLASS III..... 20
CLASS IV..... 21
CLASS V..... 22
CLASS VI..... 23
CLASS VII..... 24
CLASS VIII..... 25
CLASS IX..... 26

SECTION A - O LEVEL STREAM ADMISSION TEST SYLLABUS

CLASS PRE NURSERY

S. No.	Subject	Syllabus
1	**Basic skills**	Eye-hand coordination exercises, identifying and naming things from the environment, giving one-word answer to the questions, colouring, conversation and motor skills
2	**General Knowledge**	Recognition of basic colours, shapes, things from the environment Names of animals, fruits and vegetables

CLASS NURSERY

S. No.	Subject	Syllabus
1	**English (Phonics)**	Recognition and tracing of selected letters (c, o, a, l, d, t, r, m, s, h, n, e, p, f, g, b), Recognition of beginning sounds, naming objects from the Vocabulary Basket
2	**Urdu**	Recognition of Urdu letters (ا - ژ)
3	**Numbers**	Identification and tracing of Numbers (0 – 9) , matching of numbers with quantity, shape to shape matching
4	**General Knowledge**	Concepts of colours, fruits, animals, shapes, and other simple knowledge is also assessed.
5	**Skills**	Additionally, the child's confidence, conversation and motor skills.

CLASS PREP

S. No.	Subject	Syllabus
1	**English (Phonics)**	Alphabet Aa - Zz, Matching of capital with small alphabet Letter sounds and concept of beginning sounds Picture matching of one/many, opposites
2	**Urdu**	ا تا ےلکھنا حروف کوحروف اورتصاویر سے مالنا تصویر دیکھ کرپہلا حرف لکھنا خالی جگہ پر کریں
3	**Numbers**	Numbers in sequence 1-50 Counting objects Matching Shapes Completion of puzzles Join the dots to complete the picture
4	**Religious Studies**	First and Second Kalmas Surah Kausar Identifying the alphabet from Alif till Ya
5	**Skills**	Additionally, the child's confidence, conversation and motor skills.

CLASS I

S. No.	Subject	Syllabus
1	**English**	• Sentence making • Punctuation (capital and full stop) • Concept of articles(a and an) • Sight words • Opposites • Genders • Singular/Plural • Reading Comprehension / Picture Comprehension
2	**Urdu**	حرف تہجی (ا تا ے) کی لکھائی ، خالی جگہ پر کریں بھاری الفاظ توڑیے/جوڑیے ، تین اور چار حرفی الفاظ آدھی اشکال کو پوری اشکال سے ملانا رنگوں,پھلوں,سبزیوں کے نام جملہ سازی
3	**Numbers**	• Numbers 1 - 100 in figures • Number in words 1 – 20 • Concept of before, after and between • Simple 1 digit addition and subtraction • Spellings of shapes
4	**Religious Studies**	• Kalmas • Surah Ikhlas • Basic knowledge about our Prophet (PBUH) • Names of the five prayers • Two Zabar, Zair in 3 letter words
5	**Skills**	Additionally, the child’s confidence and conversation skills.

CLASS II

S. No.	Subject	Syllabus
1	**English**	• Opposites • Singular/Plural • Masculine/Feminine • Concept of nouns, action words, and prepositions (in, on, under) • Sentence Making • Reading Comprehension / Picture Comprehension • Short Compositions
2	**Urdu**	• ہے اور ہیں کا استعمال • مصوتوں کا استعمال • مذکر /مونث • واحد/ جمع • الفاظ / ضد • گنتی (1-10) الفاظ اور ہندسوں میں • جملہ سازی • تفہیم • مضمون نگاری
3	**Numbers**	• Numbers up to 100 in words • Numbers in figures 1 – 1000 • Place value • Simple 2- digit addition and subtraction • Concept of flat and solid shapes • Multiplicatio n Tables 2 - 5
4	**Religious Studies**	• Kalmas • Surah Ikhlas • a Basic knowledge about our Prophet (PBUH) • Five Prayers • Two Zabar, Zair, Paish, Tashdeed, Huroof Madda, Huroof Qalqala In Four Letter Words With Makharaj
5	**Skills**	Additionally, the child's confidence and conversation skills.

CLASS III

S. No.	Subject	Syllabus
1	**Islamic Education**	Could read Quranic words with hijjah and Tajweed
2	**English**	Comprehension, Composition, Grammar (Nouns, Adjectives, Prepositions)
3	**Urdu**	اسم، فعل،صفت، مذکر /مونث ، واحد/ جمع ، الفاظ / ضد، جملہ سازی، گنتی (1-20) الفاظ اور ہندسوں میں، تفہیم، مضمون نگاری
4	**Mathematics**	1. Place Value, 2. Numbers in words and figures (1000-9999) 3. Time 4. Fractions 5. Four Operations (up to 1000) 6.Tables (2-12)

CLASS IV

S. No.	Subject	Syllabus
1	**Islamic Education**	Last Surahs of Amma para. Complete namaz with Tajweed and translation
2	**English**	Comprehension, Composition, Grammar (Verbs, Adjectives, Simple Present & Past Tense)
3	**Urdu**	واحد جمع ، مذکر مونث، الفاظ ضد ، جملہ سازی، اقراری اور انکاری جملے ، بے ترتیب جملے ، علامت ختمہ اور سوالیہ ،گنتی (1-30) الفاظ اور ہندسوں میں ، تفہیم اور مضمون نگاری
4	**Mathematics**	1. Number Sense 2. Arithmetic Operations 3. Fractions 4. Measurement: Length , Time 5. Geometry: Shapes and Angles 6. Patterns and Sequence 7. Bar Graph and Pictograph Word Problems

CLASS V

S. No.	Subject	Syllabus
1	**Islamic Education**	Complete Amma para with Tajweed. Complete Namaz with Tajweed and translation
2	**English**	Comprehension, Composition, Letter Writing, Grammar (Verbs, Adjectives, Types of sentences - Command, Interrogative & statement)
3	**Urdu**	واحد جمع ، مذکر مونث، الفاظ ضد ، سوالیہ جملے ، کہ اور کے کا استعمال ، اسم ضمیر ، مترادف ، بے ترتیب جملے ، جملہ سازی، گنتی (1-40) الفاظ اور ہندسوں میں، تفہیم اور مضمون نگاری
4	**Mathematics**	1. Rounding and Estimation 2. Four Operations 3. Fractions 4. Perimeter and Area 5. Angles 6. Decimals 7. Bar Graph, Line graph Word Problems

CLASS VI

S. No.	Subject	Syllabus
1	English	Comprehension, Composition, Letter Writing, Grammar (Connectives, Types of Sentences (Simple & Compound) Adverbs)
2	Urdu	تفہم، مضمون، الفاظ مترادف، واحد جمع،مکالمہ، محاورات کا استعمال، الفاظ متضاد
3	Mathematics	1. HCF, LCM 2. Order of Operations 3. Fractions 4. Perimeter and Area 5. Find unknown angles 6. Decimals 7. Data Handling 8. Conversions 9. Percentage Word Problems and Applications
4	**General Science**	**Biology** Plant Cell and Animal Cell Life Processes of Plant and Animals i.e. Sensitivity, Growth, Nutrition, Excretion
		Chemistry Elements, Compounds and Mixture Matter and Its Properties i.e. states of matter and their characteristics, changes of state: melting, boiling, condensation, freezing, and sublimation
		Physics **Magnetism:** Properties of Magnets: i.e. Attraction and repulsion, Poles of a magnet (North and South), Magnetic field and field lines. Magnetic Materials: Difference between magnetic and non-magnetic materials Examples: iron, nickel, cobalt.

		Uses of Magnets: Applications in daily life (e.g., compasses, electric motors). **Electricity:** Basic Concepts of Electricity: i.e. Electric current and its flow. Circuit components: battery, wire, bulb, switch, Conductors and Insulators: Importance in circuits.
		Question Types MCQs, Fill in the blanks, Reasoning Questions, Labelling and Drawing of diagrams, question and answers.

CLASS VII

S. No.	Subject	Syllabus
1	**English**	Comprehension, Composition, Letter Writing, Summary Writing
2	**Urdu**	تفہیم، مضمون، الفاظ مترادف، واحد جمع،مکالمہ، محاورات کا استعمال، الفاظ متضاد
3	**Mathematics**	1. HCF, LCM, Square root 2. Algebra 3. Integers 4. Area and Perimeter of geometrical shapes 5. Ratio 6. Volume 7. Fractions and Decimals 8. Finding unknown angles 9. Data Handling (Statistical Diagrams) Word Problem: Reasoning and Logical Thnking
4	**General Science**	**Biology** ● Life Processes i.e. nutrition in plants and animals, respiration: transportation of substances in plants and animals, excretion in animals and plants ● Characteristics of Ecosystems and Environment i.e. food chains and food webs
		Chemistry ● Elements, Compounds, and Mixtures i.e. Metals and non-metals, separation techniques for mixtures ● Physical vs. chemical changes, simple word equations
		Physics ● Electricity: Types of Circuits: Open and closed circuits., Series and parallel circuits. ● Electrical Safety: Importance of insulation, Precautions to prevent shocks and short circuits. ● Electromagnetism: Relationship between electricity and magnetism. ● Basic concept of an electromagnet and its applications (e.g., cranes, doorbells).

		● Energy i.e. types of energy: kinetic, potential, thermal, and chemical, renewable and non-renewable energy sources and applications of energy in daily life
		Question Types MCQs, Fill in the blanks, Reasoning Questions, Labelling and Drawing of diagrams, question and answers.

CLASS VIII

S. No.	Subject	Syllabus
1	**English**	Comprehension, Composition, Letter Writing, Summary Writing
2	**Urdu**	تفہیم، درخواست، مضمون، صحیح الفاظ کا استعمال
3	**Mathematics**	1. HCF, LCM, Square root, Cube root 2. Algebra 3. Integers 4. Area and Perimeter of compound figures 5. Ratio 6. Volume 7. Fraction and Decimals 8. Finding unknown angles 9. Data Handling (Statistical Diagrams) 10. Percentages Word Problem: Reasoning and Logical Thinking
4	**General Science**	1. **Physics** ● Measurement and Units- SI units of measurement (length, mass, time, temperature, etc.), Conversion of units ● Forces and Motion-Types of forces (contact and non-contact forces), Newton's Laws of Motion ● Simple machines (levers, pulleys, inclined planes) ● Heat and Temperature - Heat transfer methods (conduction, convection, radiation), Temperature scales (Celsius, Kelvin, Fahrenheit)
		2. Chemistry ● Structure of Matter - Atomic structure (protons, neutrons, electrons), Atomic number, mass number, and isotopes ● The periodic table and elements classification (metals, non-metals, metalloids) ● Chemical Reactions - Types of chemical reactions (combustion, oxidation, reduction, displacement, etc.), ● Word equations

		● Acids, bases, and salts (properties, uses, and examples) ● States of Matter - Characteristics of solids, liquids, and gases, Changes in state (melting, boiling, condensation, freezing), Diffusion in gases and liquids, Solvent, solute, and solution
		3. Biology ● Cell Biology - Structure and functions of plant and animal cells, Differences between plant and animal cells ● Human Biology - Digestive system (organs and processes), Respiratory system (organs and processes), Circulatory system (heart, blood vessels, and blood flow) ● Plant Biology- Photosynthesis process, Plant nutrition (role of water, minerals, and sunlight), Transport of water and nutrients in plants (xylem and phloem) ● Ecology-Ecosystems and their components (producers, consumers, decomposers), Food chains and food webs ● Environmental Science-Pollution, Types of pollution (air, water, land), Causes and effects of pollution, Natural Resources, Renewable and non-renewable resources

CLASS IX

S. No.	Subject	Syllabus
1	**English**	Comprehension, Composition, Summary Writing
2	**Urdu**	خلاصہ، مضمون، محاورات کا جملوں میں استعمال، الفاظ متضاد، واحد جمع، جملوں میں زمانے کی تبدیلی(حال، ماضی،مستقبل)
3	**Mathematics**	1. HCF, LCM, Square root, Cube root 2. Algebraic expressions and fractions 3. Factorization and solution of Quadratic Equations 4. Area and Perimeter of geometrical shapes 5. Ratio and proportion 6. Volume 7. Fraction and Decimals 8. Finding unknown angles 9. Data Handling Word Problem: Reasoning and Logical Thnking
4	**General Science**	**1. Physics** Measurement and Units-SI units and their application (length, mass, time, temperature, etc.), Conversion of units (e.g., km to m, g to kg), Significant figures and scientific notation Kinematics-Types of motion (uniform, non-uniform), Speed, velocity, and acceleration, Distance-time and velocity-time graphs, Forces and Newton’s Laws of Motion, Force, mass, and acceleration Work, Energy, and Power-Work and energy (kinetic and potential), The law of conservation of energy, Power and its calculation, Gravitation, Gravitational force and acceleration due to gravity, Weight and mass

		2. Chemistry ● Structure of Matter-Atomic structure (protons, neutrons, electrons), Atomic number, mass number, isotopes, Electronic configuration(First ten elements) and the periodic table (groups and periods), Chemical Bonding-Ionic and covalent bonding, Properties of ionic and covalent compounds, Structure of molecules and ions ● States of Matter-Characteristics of solids, liquids, and gases, Changes of state (melting, boiling, condensation, freezing), Chemical Reactions, Types of chemical reactions (combustion, synthesis, decomposition, displacement, neutralization), Exothermic and endothermic reactions ● Acids, Bases, and Salts-Properties of acids, bases, and salts, pH scale and indicators (litmus, phenolphthalein), Neutralization reactions and applications (e.g., acid-base titrations) ● The Periodic Table- Alkali metals, halogens, noble gases
		3. Biology ● Cell Biology- Structure and function of plant and animal cells, Differences between prokaryotic and eukaryotic cells, Organelles (nucleus, mitochondria, ribosomes, etc.), Tissues and Organ Systems, Plant tissues (meristematic and permanent), Animal tissues (epithelial, connective, muscular, nervous), Organ systems in humans (digestive, respiratory, circulatory, excretory, nervous) ● Human Physiology-Digestive system and its processes, Respiratory system and the process of gas exchange, Circulatory system (structure of the heart, blood vessels, blood), Nervous system (brain, spinal cord, and reflex actions) ● Ecology and Environment-Ecosystem structure (producers, consumers, decomposers), Food chains and webs, Energy flow in ecosystems ● Environmental Science-Pollution, Types of pollution (air, water, soil), Causes and effects of pollution,Natural Resources, Renewable and nonrenewable resources

SECTION B - MATRIC STREAM ADMISSION TEST SYLLABUS

CLASS PRE NURSERY

S. No.	Subject	Syllabus
1	**Basic skills**	Tracing on dotted lines, colouring, conversation and motor skills
2	**General Knowledge**	Recognition of basic colours, shapes, things from the environment Names of animals, fruits and vegetables

CLASS NURSERY

S. No.	Subject	Syllabus
1	**English (Phonics)**	Recognition and tracing of selected letters (c, o, a, l, d, t, r, m, s, h, n, e, p, f, g, b), Recognition of beginning sounds
2	**Urdu**	Urdu letters ا تا ژ
3	**Numbers**	Numbers (0 – 9) , matching of numbers with quantity, shape to shape matching
4	**General Knowledge**	Concepts of colours, fruits, animals, shapes, and other simple knowledge is also assessed.
5	**Skills**	Additionally, the child's confidence, conversation and motor skills.

CLASS PREP

S. No.	Subject	Syllabus
1	**English (Phonics)**	Alphabet Aa - Zz Letter sounds and concept of beginning sounds Picture matching of one/many, opposites)
2	**Urdu**	ا تا ےلکھنا حروف کوحروف اورتصاویر سے مالنا تصویر دیکھ کرپہلا حرف لکھنا
3	**Numbers**	Numbers in sequence 1-50 Counting objects Matching Shapes
4	**Religious Studies**	First and Second Kalmas Surah Kausar Identifying the alphabet from Alif till Ya
5	**Skills**	Additionally, the child's confidence, conversation and motor skills.

CLASS I

S. No.	Subject	Syllabus
1	**English**	• Writing simple sentences • Punctuation (capital and full stop) • Concept of articles(a and an) • Sight words • Opposites • Genders • Singular/Plural • Reading Comprehension (selecting the correct answer)
2	**Urdu**	حرف تہجی (ا تا ے) آدھی اشکال لکھنا بھاری الفاظ توڑیے/جوڑیے تین اور چار حرفی الفاظ رنگوں,پھلوں,سبزیوں کے نام جملہ سازی
3	**Numbers**	• Numbers 1 - 100 in figures • Number in words 1 – 20 • Concept of before, after and between • Simple 1 digit addition and subtraction • Spellings of shapes
4	**Religious Studies**	• Kalmas • Surah Ikhlas • Basic knowledge about our Prophet (PBUH) • Names of the five prayers • Two Zabar, Zair in 3 letter words
5	**Skills**	Additionally, the child’s confidence and conversation skills.

CLASS II

S. No.	Subject	Syllabus
1	**English**	• Opposites • Singular/Plural • Masculine/Feminine • Concept of nouns, action words, and prepositions (in, on, under) • Sentence Making • Reading Comprehension • Short Compositions
2	**Urdu**	• ہے اور ہیں کا استعمال • مصوتوں کا استعمال • مذکر /مونث • واحد/ جمع • الفاظ / ضد • جملہ سازی • تفہیم • مضمون نگاری
3	**Numbers**	• Numbers up to 100 in words • Numbers in figures 1 – 1000 • Place value • Simple 2- digit addition and subtraction • Concept of 2D and 3D shapes • Multiplication Tables 2 - 5
4	**Religious Studies**	• Kalmas • Surah Ikhlas • a Basic knowledge about our Prophet (PBUH) • Five Prayers • Two Zabar, Zair, Paish, Tashdeed, Huroof Madda, Huroof Qalqala In Four Letter Words With Makharaj
5	**Skills**	Additionally, the child's confidence and conversation skills.

CLASS III

S. No.	Subject	Syllabus
1	**Islamic Education**	Could read Quranic words with hijjah and tajweed
2	**English**	Comprehension, Composition of Sentences, Grammar (Nouns, Verbs [Present Tense])
3	**Urdu**	اسم، فعل،صفت، مذکر /مونث ، واحد/ جمع ، الفاظ / ضد، جملہ سازی، گنتی (1-20) الفاظ اور ہندسوں میں، تفہیم، مضمون نگاری
4	**Mathematics**	1. Place Value 2. Numbers in words and figures (1000-9999) 3. Time 4. Fractions 5. Four Operations (up to 1000) 6. Tables (2-12)

CLASS IV

S. No.	Subject	Syllabus
1	**Islamic Education**	Oral recitation of Last surahs of Amma para with Tajweed.. Complete Namaz with Tajweed and Translation
2	**English**	Comprehension, Composition, Grammar (Verbs [Past Tense], Adjectives)
3	**Urdu**	واحد جمع ، مذکر مونث، الفاظ ضد ، جملہ سازی، اقراری اور انکاری جملے ، بے ترتیب جملے ، علامت ختمہ اور سوالیہ ، گنتی (1-30) الفاظ اور ہندسوں میں ،تفہیم اور مضمون نگاری
4	**Mathematics**	1. Number Sense 2. Arithmetic Operations 3. Fractions 4. Measurement: Length, Time 5. Geometry: Shapes 6. Patterns and Sequence 7. Bar Graph and Pictograph Word Problems

CLASS V

S. No.	Subject	Syllabus
1	**Islamic Education**	Complete Amma para with Tajweed.. Complete Namaz with Tajweed and translation
2	**English**	Comprehension, Composition, Grammar (Nouns, Verbs, Adjectives)
3	**Urdu**	واحد جمع ، مذکر مونث، الفاظ ضد ، سوالیہ جملے ، کہ اور کے کا استعمال ، اسم ضمیر ، مترادف ، بے ترتیب جملے ، جملہ سازی، گنتی (1-40) الفاظ اور ہندسوں میں،تفہیم اور مضمون نگاری
4	**Mathematics**	1. Rounding and Estimation 2. Four Operations 3. Fractions 4. Perimeter and Area 5. Angles 6. Decimals 7. Bar Graph, Line graph Word Problems

CLASS VI

S. No.	Subject	Syllabus
1	**English**	Comprehension, Composition, Grammar (Verbs, Adjectives, Preposition)
2	**Urdu**	تفہیم،الفاظ مترادف، واحد جمع،مضمون،،جملوں میں زمانوں کا استعمال(حال، ماضی،مستقبل)
3	**Mathematics**	1. HCF, LCM 2. Order of Operations 3. Fractions 4. Perimeter and Area 5. Find unknown angles 6. Decimals 7. Data Handling 8. Conversions 9. Percentage Word Problems and Applications
4	**General Science**	**Biology** ● Plant Cell and Animal Cell (with four common organelles and its properties) ● Life Processes of Plant and Animals i.e. Movement, Nutrition, Respiration, Reproduction.
		Chemistry ● Elements, Compounds and Mixture ● Matter and Its Properties i.e. states of matter and their characteristics, changes of state: melting, boiling, condensation, freezing, and sublimation
		Physics ● Properties of Light i.e. Reflection , Refraction and Dispersion ● Modes of Heat Transfer i.e. Conduction, Radiation and Convection
		Question Types MCQs, Reasoning Questions, labelling and drawing of diagrams, question and answers.

CLASS VII

S. No.	Subject	Syllabus
1	**English**	Comprehension, Composition, Grammar (Verbs, Adverbs, Conjunctions)
2	**Urdu**	تفہیم، سا بقے لاحقے، تشبیہات،الفاظ متضد، واحد جمع، مضمون، محاورات
3	**Mathematics**	1. HCF, LCM, Square root 2. Algebra 3. Integers 4. Area and Perimeter of geometrical shapes 5. Ratio 6. Volume 7. Fraction and Decimals 8. Finding unknown angles 9. Data Handling (Statistical Diagrams) Word Problem: Reasoning and Logical Thinking
4	**General Science**	**Biology** Life Processes i.e. nutrition in plants and animals, respiration: transportation of substances in plants and animals, excretion in animals and plants Characteristics of Ecosystems and Environment i.e. food chains and food webs
		Physics Forces and Motion i.e. types of forces: gravitational, frictional, and applied forces Energy i.e. types of energy: kinetic, potential, thermal, and chemical, renewable and non-renewable energy sources and applications of energy in daily life
		Chemistry Elements, Compounds, and Mixtures i.e. Metals and non-metals, separation techniques for mixtures Physical vs. chemical changes
		Question Types MCQs, Reasoning Questions, labelling and drawing of diagrams, question and answers.

CLASS VIII

S. No.	Subject	Syllabus
1	**English**	Comprehension, Composition Letter, Grammar (Verbs, Adjectives, Adverbs, Preposition and Conjunctions)
2	**Urdu**	تفہیم،مضمون،محاورات، منفی مثبت جملے،الفاظ مترادف، واحد جمع، الفاظ متضاد، سابقے لاحقے
3	**Mathematics**	1. HCF, LCM, Square root, Cube root 2. Algebra 3. Integers 4. Area and Perimeter of compound figures 5. Ratio 6. Volume 7. Fraction and Decimals 8. Finding unknown angles 9. Data Handling (Statistical Diagrams) 10. Percentages Word Problem: Reasoning and Logical Thinking
4	**General Science**	**Physics** ● Measurement and Units- SI units, Measuring instruments (e.g., thermometer, ruler, stopwatch) ● Force and Motion- Types of forces (contact and non-contact), Newton's Laws of Motion ● Simple machines (lever, pulley, inclined plane) ● Heat- Concept of temperature and heat, Methods of heat transfer (conduction, convection, radiation)
		Chemistry ● Matter and Its States- Classification of matter (elements, compounds, mixtures), Properties of solids, liquids, and gases ● Changes in states of matter- Physical and Chemical Changes, Differences between physical and chemical changes ● Atomic Structure and Elements- Basic structure of an atom (protons, neutrons, electrons), Elements and their symbols ● Chemical Reactions- Types of chemical reactions (combustion, oxidation, reduction, etc.), Word equations

		Biology ● Cell Biology- Structure of plant and animal cells-Functions of cell components (nucleus, mitochondria, chloroplasts), Differences between plant and animal cells ● Human Body Systems- Digestive system, Respiratory system, Circulatory system ● Plant and Animal Nutrition- Photosynthesis, Modes of nutrition in plants and animals
		Environmental Science ● Ecosystems, Components of an ecosystem, Food chain and food web (producers, consumers, decomposers), ● Energy flow in ecosystems, ● Pollution- Types of pollution (air, water, land), Causes and effects of pollution, Measures to control pollution, Natural Resources, Renewable and non-renewable resources

CLASS IX

S. No.	Subject	Syllabus
1	**English**	Comprehension, Composition Letter, Grammar (Active Passive, Adverbs, Conjunction, Prefix and Suffix)
2	**Urdu**	تفہیم، مضمون، محاورات کا جملوں میں استعمال، الفاظ مترادف، سابقے لاحقے
3	**Mathematics**	1. HCF, LCM, Square root, Cube root 2. Algebraic expressions and fractions 3. Factorization and solution of Quadratic Equations 4. Area and Perimeter of geometrical shapes 5. Ratio and proportion 6. Volume 7. Fraction and Decimals 8. Finding unknown angles 9. Data Handling Word Problem: Reasoning and Logical Thinking

4	**Computer Science**	1. Fundamentals of Computers:Definition and characteristics of computers, Basic components of a computer system (Input devices, Output devices, Storage devices, Processing devices), Uses of computers in daily life 2. Computer Hardware and Software: Hardware: Definition and examples of hardware, Categories: Input, Output, Storage, Processing, Software:Definition and types of software, System software (Operating systems, Role and functions of an Operating System) , Application software (e.g., MS Word, Spreadsheets, PowerPoint), Utility software (e.g., antivirus) 3. Introduction to Computer Programming: Basics of algorithms and flowcharts, Introduction to programming languages (High-level and Low-level) 4. Basics of Computer Networks
4	**General Science**	**Physics** Measurement and Units, SI units and their applications, Conversion of units, Force and Laws of Motion, Newton's Laws of Motion, Concept of force, mass, and acceleration, Momentum and its conservation, Kinetic energy, potential energy, Law of conservation of energy, Power and its units, Gravitation, Universal law of gravitation, Free fall, acceleration due to gravity, Weight and mass
		Chemistry Matter and Its States, Classification of matter (solids, liquids, gases), Properties of solids, liquids, and gases, Changes in state and factors affecting them, Atomic Structure and Periodic Table, Structure of an atom (protons, neutrons, electrons), Atomic number, mass number, and isotopes, Periodic Table, groups, and periods, Chemical Reactions, Types of chemical reactions (combustion, displacement, neutralization), Word equations, Heat changes in reactions (exothermic and endothermic), Acids, Bases, and Salts-Properties of acids, bases, and salts, pH scale and its importance, Water and its Importance

		Biology Cell Structure and Function, Structure of plant and animal cells, Differences between prokaryotic and eukaryotic cells, Organelles and their functions (nucleus, mitochondria, chloroplasts, etc.), Tissues-Plant tissues (meristematic, permanent), Animal tissues (epithelial, connective, muscular, nervous), Functions and characteristics of different tissues. Human Physiology-Digestive system (organs and processes involved), Respiratory system (organs and processes involved), Circulatory system (heart, blood vessels, blood flow), Excretory system (kidneys, ureters, urethra), Nervous system (brain, spinal cord, and nerves)
		Environmental Science Ecosystem, Components of an ecosystem (producers, consumers, decomposers), Food chains, food webs, and ecological pyramids, Pollution-Types of pollution (air, water, soil), Causes, effects, and control measures of pollution, Natural Resources- Renewable and non-renewable resources