Syllabus Outline – For Admission in Y10

(Minimum Age 14.8, Maximum Age 15.7 years on 1st September, 2026)

Subject	Syllabus
Mathematics	**Numbers** - Arithmetic (Decimals, Fractions, both) - Number Facts (Rational and Irrational Nos.) - Sequences - Measurements and Bounds - Standard Form - Ratio and Proportion - Foreign Exchange - Percentages (% age Increase & Decrease) - Interest (Simple, Compound) - Speed, Distance and Time **Algebra** - Directed Numbers - Formula Making and Formulas - Brackets and Simplifying - Linear Equations - Problems Solved by Linear Equations - Simultaneous Equations (Substitution, Elimination) - Problems Solved by Simultaneous Equations - Factorization - Quadratic Equations and Problems Solved by Quadratic Equations - Completing Squares and Solving Equations by Completing Squares **Mensuration** - Areas of Rectangle, Trapezium, Kite, Parallelogram, Triangle, Circle - Regular Polygons - Arc Length and Sector Area - Chord of a Circle - Finding Shaded Areas - Volumes of Prisms, Pyramid, Cone, Sphere, Hemisphere - Surface Areas of Three -D Shapes (Cylinders, Sphere, Cone, Boxes) **Geometry** - Fundamental Results - Polygons (Interior and Exterior Angles and No. of Sides) - Parallel Lines (Alternate, Corresponding, Allied, Vertically Opposite) - Pythagoras' Theorem - Similarity (Similar Shapes, Areas of Similar Shapes, Volumes of Similar Shapes).

Physics	**<u>Motion, Forces and Energy</u>** 1.1) Physical Quantities and measurement techniques 1.2) Motion 1.3) Mass and Weight 1.4) Density 1.5) Forces 1.6) Momentum 1.7) Energy, Work and Power 1.8) Pressure *Ref: Cambridge IGCSE Physics 0625 syllabus for 2023, 2024 and 2025*
Chemistry	Unit 1: States of Matter Unit 2: Elements, Compounds and Mixtures Unit 3: Atomic Structure Unit 4: Ionic, Covalent & Metallic Bonding Unit 5: Chemical Formulae and Equations Unit 6: 6.1 Relative Molecular Mass Unit 12: Acids, Bases and Salts Unit 13: Periodic Table Unit: 20: Experimental Techniques and Chemical Analysis *Resources:* **Cambridge IGCSE Chemistry-Marshall Cavendish** **0620 syllabus 2023-2025**
Biology	Chapter 1: Characteristics and classification of living organisms Chapter 2: Cells Chapter 3 Movement into and out of cells Chapter 4: Biological molecules Chapter 5: Enzymes Chapter 6: Plant nutrition Chapter 7: Human nutrition Chapter 8: Transport in plants Chapter 19: Human influences on ecosystems *Reference:* • *Cambridge IGCSE Biology 0610- Syllabus for Exams in 2023, 2024 and 2025.* • *Coursebook: Cambridge IGCSE Biology 4th Edition by Mary Jones, Geoff Jones*

Economics	**Section 1: Basic Economic Problem** Chapter 1; The Nature of the Economic Problem Chapter 2; Factors of production and Opportunity cost Chapter 3; Opportunity cost. Chapter 4; Production Possibility Curve (PPF) **Section 2: The allocation of resources.** Chapter 5: Microeconomics and Macroeconomics Chapter 6: The role of market in allocating resources. Chapter 7: Demand Chapter 8: Supply Chapter 9: Price determination Chapter 10: Price changes. Chapter 11: Price elasticity of demand. Chapter 12: Price elasticity of supply Chapter 13: Market Economic System Chapter 14: Market Failure. Chapter 15: Mixed economic system Text Book: Cambridge IGCSE Economics by Paul Hoang (2nd Edition)
Business Studies	**Section 1: Understanding Business Activity** • Chapter 1: Business Activity • Chapter 2: Classification of Business • Chapter 3: Enterprise, Business growth and Size • Chapter 4: Types of Business Organization • Chapter 5: Business objectives and Stakeholders objectives. **Section 2: People in Business** • Chapter 6: Motivating Employees • Chapter 7: Organization and Management • Chapter 8: Recruitment, selection and training employees • Chapter 9: Business Communication **Ref: Cambridge IGCSE and O Level Business Studies Coursebook – Revised Third Edition** *By: Mark Fisher, Medi Huoughton and Veenu Jain*
Accounting	Chapter 1 : Introduction to Accounting Chapter 2 : Double Entry Book-keeping Part A Chapter 3 : The Trial Balance Chapter 4 : Double Entry Book-keeping Part B Chapter 5 : Petty Cash Book Chapter 6; Business Documents Chapter 7 : Books of Prime Entry Chapter 8 : Financial Statements Part A (Income Statement) Chapter 9 : Financial Statements Part B (Statement of financial position)

Computer Science	Chapter 1: Data representation Chapter 2: Data transmission Chapter 7: Algorithm design and problem-solving Chapter 8: Programming Syllabus: IGCSE Computer Science - 0478 Ref: Cambridge IGCSE and O Level Computer Science Second Edition by David Watson, Helen Williams
ICT	Chapter 4: Networks and the effects of using them Chapter 7: The systems life cycle Chapter 18: Databases Chapter 19: Presentations Chapter 20: Spreadsheets Syllabus: 0417-Information and Communication Technology Ref: Cambridge IGCSE ICT Student's Book Third Edition by Hodder education