

# Wordbridge School

Playgroup to A Level

Half Yearly Syllabus

Session: 2022-2023

Class-VIII

Sl.	Subject	Syllabus
1.	Arithmetic	<b>Book: Extended Mathematics:</b> <b>Chapter1: Number:</b> 1.1 Arithmetic—Decimals, Fractions, Fractions and Decimals, Ex: 1,2,3,4 (pg: 2-5); 1.2 Number facts and sequences-- Number facts, Rational and irrational numbers, Sequences, Ex: 5,6,7 (pg: 6-8) <b>Chapter 5- Graphs of Functions and Graphical function:</b> Unit 5.1 Graphs of Cubic, <b>Chapter 5- Graphs of Functions and Graphical function:</b> Ex. 5A, 5B. <b>Chapter 1 Quadratic Equations and functions:</b> Unit 1.3 Solving graphical equations by graphical method.
2.	Algebra	<b>Book: New Syllabus Mathematics Book 3 (7<sup>th</sup> edition):</b> <b>Chapter 1: Quadratic Equations &amp; Functions (Page 3-27):</b> 1.1 Solving Quadratic Equations by Completing the Square, Ex 1A. 1.2 Solving Quadratic Equations by using Formula. Ex 1B, 1.4 Solving Fractional Equations that can be reduced to Quadratic Equations. 1.5 Applications of Quadratic Equations in Real-World Contexts. Ex 1D, Review Exercise 1. <b>Simultaneous Equations:</b> (Handout and worksheet provided)
3.	Geometry	<b>Book: New Syllabus Mathematics 3:</b> <b>Chapter 4: Coordinate Geometry:</b> Unit 4.1-Gradient of a straight line, Unit 4.2-Length of av line segment, Unit 4.3-Equation of a straight line b. <b>Chapter 9: Congruent and similar triangles:</b> Unit 9.1-Congruency Test. Unit 9.2-Similar Triangles, Unit 9.3-Application of congruent and similar triangle.
4.	Add Math	<b>Book: Add Maths Lee Peng:</b> Chapter 2 - 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 Chapter 3 - 3.1, 3.2, 3.3, 3.4, 3.5 Chapter 4 - 4.1, 4.2
5.	Economics	<b>The basic economic problem:</b> finite resources and unlimited wants economic and free goods. <b>The factors of production:</b> definitions of the factors of production and their rewards, mobility of the factors of production, quantity and quality of the factors of production. <b>Opportunity cost:</b> definition of opportunity cost, the influence of opportunity cost on decision making. <b>Production possibility curve diagrams (PPC):</b> definition of PPC, points under, on and beyond a PPC, movements along a PPC, Shifts in PPC, <b>The allocation of resources:</b> microeconomics,

6.	<b>Accounting</b>	<ol style="list-style-type: none"> <li>1. The background and the main features of financial accounting</li> <li>2. Recording transactions</li> <li>3. Inventory</li> <li>4. The effect of profit or loss on capital and the double entry system</li> <li>5. Balancing off accounts</li> <li>6. The trial balance</li> </ol>
7.	<b>English Literature</b>	<p><b>Novel: Pride and Prejudice:</b> Chapter 1– 8.</p> <p><b>Selected Poems:</b> Stopping by Woods on a Snowy Evening, Robert Frost, Endless Time-Rabindranath Tagore.</p>
8.	<b>English Language</b>	<p><b>(Oxford Progressive English Book 8):</b></p> <p><b>Unit 1 – Great Inventions:</b> Texts: News Report, Fiction, Non-fiction, Grammar: Modals, Synonyms &amp; Antonyms, And Nonfinite Verbs: Gerund &amp; Present Participle.</p> <p><b>Unit 2- Horses: Text:</b> The Ministers Garden, Green force, Oil Spillage Disaster, The King and the Tide.</p> <p>Grammar: Prepositions, Direct &amp; Indirect Speech, Structural kinds of Sentences.</p> <p><b>Unit 3 – Mysteries:</b> Texts: Reading Comprehension Q/A, Vocabulary tasks, Grammar: Conjunctive Adverbs, Adverbs' different kinds.</p> <p><b>Unit 4- Conflict:</b> Text: Reading Comprehension Q/A, Letter Writing, Vocabulary tasks, Grammar: Conditionals, Prepositions, Suffix-Prefixes.</p> <p><b>Creative Writing:</b> Composition.</p>
9.	<b>Bangla Literature</b>	<p>বই : সাহিত্য কণিকা</p> <p>গদ্য : অতিথির স্মৃতি- শরৎচন্দ্র চট্টোপাধ্যায় (পৃ : ১), আমাদের লোকশিল্প - কামরুল হাসান (পৃ : ৩), সুখী মানুষ - মমতাজ উদ্দিন আহমেদ (পৃ : ৪১)।</p> <p>পদ্য : বঙ্গভূমির প্রতি - মাইকেল মধুসূদন দত্ত, আবার আসিব ফিরে - জীবনানন্দ দাশ ( পৃ : ১০২),</p>
10.	<b>Bangla Language</b>	<p>বই : ক) ভাষা শিক্ষা ( বাংলা ব্যাকরণ ও নির্মিতি), খ) <b>An introduction to O level Bengali</b> (ও - লেভেল বাংলা ভাষা পরিচয়) :</p> <p>সন্ধি বিচ্ছেদ, এককথায় প্রকাশ, বিপরীত শব্দ, সমোচ্চারিত শব্দ, বাক্য রূপান্তর, বন্ধ পরিচ্ছেদ। চিঠি/ই-মেইল, বাগধারা, সারাংশ/সারমর্ম, অনুবাদ, অনুচ্ছেদ, রচনা (নির্ধারিত/অনির্ধারিত)।</p>
11.	<b>Biology</b>	<p><b>Book: Federal Biology A course for O level :</b></p> <p><b>Chapter 2: Cells:</b> The building blocks of life, Pg. 12-18,</p> <p><b>Chapter 3: Diffusion, Osmosis, Active transport and surface area to volume ratio,</b> Pg. 23-33, <b>Chapter 4: Enzymes:</b> Pg. 40-44, <b>Chapter 5: Nutrition:</b> Pg.55-72, <b>Chapter 6: Nutrition in Mammal:</b> Pg. 82-94,</p>
12.	<b>Chemistry</b>	<p><b>Book: Cambridge IGCSE Chemistry Course book (4th Edition):</b></p> <p><b>Chapter 2 The nature of matter :</b> 2.1 The states of matter', 2.2 Separating and purifying substances, 2.3 Atoms and molecules, 2.4 The structure of the atoms, 2.5 electron arrangements in atom,</p> <p><b>Chapter 3 Elements and Compounds:</b> 3.1 The periodic table, 3.2 Trends in groups, 3.3 Trends across a period, 3.4 Chemical bonding, 3.5 The chemical formulae of elements and elements, 3.6 Metals, The alkali metals.</p>

13.	Physics	<p><b>Book: Cambridge O level Physics, Physics (Chew, Cheng, Foong):</b></p> <p><b>Unit 1 – Making measurements:</b> 1.1 Measuring length and volume (pg: 3), 1.2 Improving precision in measurements (pg: 5-6), 1.3 Density (pg: 7-9), 1.4 Measuring time (pg: 9-11).</p> <p><b>Unit 2 – Describing motion:</b> 2.1- Understanding Speed (pg: 14-16), 2.2- Distance against time graphs (pg: 16-19), 2.3- Understanding acceleration (pg: 19-21), 2.4- Calculating Acceleration (pg: 21).</p> <p><b>Unit 3 – Forces and motion:</b> 3.1- We have lift-off (pg: 26-30), 3.2- Force, mass and acceleration, (pg: 30-32). 3.3- Mass, Weight and Gravity (pg: 32-33), 3.5- More about Scalars and Vectors (pg: 35).</p> <p><b>Unit 5 – Forces and matter:</b> 5.1 Forces acting on solids, 5.2 Stretching springs\5.3 Hooke’s law, 5.4 Pressure.</p> <p><b>Unit 6 – Energy Transformations and Energy Transfers:</b> 6.1- Forms of energy (pg:63-66), 6.2- Energy Conversions (pg:66-67), 6.3- Conservation of energy (pg:67-70), 6.4- Energy Calculations (pg-70),</p>
14.	Bangladesh Studies	<p><b>Book: Discovering Bangladesh Book III (Part-II):</b></p> <p><b>Chapter 6: Land and Environment (Only MCQ):</b> Unit: 6.1 and 6.2, 6.6-6.10, 6.13</p> <p><b>Chapter 7: River:</b> Unit: 7.1- Unit: 7.7</p> <p><b>Chapter-8: Climate:</b> Unit: 8.1- Unit: 8.4</p>
15.	Computer Science	<p><b>Book: Cambridge IGCSE &amp;O Level Paper-1:</b></p> <p><b>Chp-1: Data representation, (pg - 2):</b> 1.1.1 Binary represents data, 1.1.2 Binary, denary and hexadecimal systems, 1.1.3 Use of the hexadecimal system, 1.1.4 Addition of binary numbers, 1.1.5 logical binary shifts,1.1.6 Two’s complement.</p> <p><b>Paper-2:</b></p> <p><b>Book: Cambridge IGCSE &amp;O Level</b></p> <p><b>Chap – 7 : Algorithm design and problem – solving</b></p> <p><b>7.2.2</b> Decomposing a problem. <b>7.2.3</b> Method used to design and construct a solution to a problem, Flowchart, Pseudo code. <b>7.6</b> Test data, <b>7.7</b> Trace tables to document dry runs of algorithms</p> <p><b>Chap – 8: Programming</b></p> <p><b>8.1</b> Programming concepts (pg 302 - 311), <b>8.1.1</b> Variables and Constants, <b>8.1.2</b> Basic data types.</p> <p><b>Book: Cambridge IGCSE and O Level Computer Science Programming Book for Python</b></p> <p><b>Chapter – 3 : Variables and Arithmetic Operators (page - 14)</b></p> <p><b>3.06</b> Arithmetic Operators, <b>3.07</b> Programming Tasks.</p>
16.	Art	<p><b>Topics:</b> Rainy season, Winter in Bangladesh, Autumn, Still life bottle, Still flower water colour.</p>

\* **Types of Questions:** Fill in the blanks, True/ False, Answer in one word, Short Questions, Broad Questions, Definitions, Diagrams, Draw, colour & label, Short notes, matching, Mental Maths, Solving sums by showing their workouts, Problem Solving.