Ascot High School Department

Mathematics Department

Grade 7 NSC Curriculum

September 2025 – December 2025 2025

Introduction:

Based on the philosophy that mathematics is all around us and that everyone uses and understands some mathematics, the Mathematics Curriculum for Grade 7 is designed to:

- build students' learning and numeracy skills by exploring and applying the model of the 4Cs (creativity, critical thinking, collaboration and communication), while gaining knowledge of the content area;
- correct, where necessary, and build upon the knowledge of students through activities related to everyday life, applying mathematical principles of investigating, reasoning, estimating, forming conjectures and testing them, and through meaningful communication;
- expand knowledge through the formation of new concepts while establishing the inter-relatedness of mathematics with other disciplines;
- enable the development of attitudes of self-awareness and self-confidence, appreciation of enquiry, independent thinking, willingness to share, and cooperation with others in the pursuit of knowledge.
- help students' build life skills in order for them to be; flexible, productive, have good initiatives, exercise healthy habits, be a good leader and to be able to develop their social skills; by implementing the concept of the National Goals (Jamaicans are empowered to achieve their fullest potential, The Jamaican society is secure, cohesive and just, Jamaica's economy is prosperous, Jamaica has a healthy natural environment) while gaining knowledge of the content areas.

Unit Title	Previous Knowledge: Check that students can:	Standard	Key Skills	Specific Objectives: Students should be able to:	Duration	Assessment	Resources	Remarks
Numbers	• List the set of factors of sets of whole numbers; • Compute the HCF and LCM of whole numbers; • State the place value of a digit in a whole number or decimal fraction.	Use the basic operations, number relationships, patterns, number facts, calculators and software to compute and estimate in order to solve real world problems involving fractions, percentages and decimals.	• Classify • Order • Describe • Calculate • Compare • share findings • work in groups • solve problem • represent fractions • investigate fractions • draw diagrams • investigate real numbers • classify real numbers • share and compare • discuss • approximate	1.) Review Place value systems along with writing numbers from worded descriptions and vice versa. 2.) Describe different types of numbers in the real number system (Natural, Whole, Integer, Rational, Irrational, Fractional) 3.) Compare and order a set of numbers. 4.) By rounding off, approximate a given number to the nearest thousandths,	**2 weeks**	• Homework Ongoing • Classwork Ongoing • End of unit Test • Games • Projects	• Textbook • Worksheets • Manipulatives • Mobile device • Speaker • Projector	Link Rational Numbers to Fractions

			numbers ● explore “rules of ● divisibility” ● navigate digital ● content	hundredths, tenths, tens, hundreds, thousands, etc. 5.) Perform the four basic operations, including multiple operations, on whole numbers, mentally, using paper and pencil, and in problem situations. 6.) Divide three four five digit number by one, two, three digit number including instances where zero is a digit in the quotient. 7.) Identify without calculation, whole numbers divisible by 2, 3, 4, 5, 6 and 9.		● Journals	● Electricity	

				8.) Solve problems that require operations on Fractional Numbers. 9.) Express Fractional Numbers in Decimal Form with denominators 10, 100, 1000.				Explore the definition of Fractions, including its structure, equivalent Fractions, Writing Fractions in ascending order and computations on fractions. (Start each term with a Number Theory topic)
					2 weeks			

Measurement	• Differentiate between the units of the Metric System in measurement situations; • Know and use relationships between units of the Metric System in measurement situation;	Use the correct units, tools and attributes to estimate, compare and carry out the processes of measurement to given degree of accuracy.	• Investigate • Measure • Observe • Share • Compare • Estimate • Record information • Listen carefully	1. Measure length, mass, time, temperature, volume, capacity using appropriate instruments. 2. Perform conversions within units (Length, Mass and Time).- Vice Versa	**2 weeks**	• Homework Ongoing • Classwork Ongoing • End of unit Test • Games	• Textbook • Worksheets • Manipulatives • Mobile device • Speaker • Projector	*Relocate in syllabus

	• Calculate the perimeter of irregular polygons and regular polygons by means of the appropriate formula;		• Make measuring • instruments • Work in groups • Problem-solve	3. Find the perimeter of plane composite figures. 4. Find the area of plane composite figures. (Rectangles, Square and Triangle)	**2 weeks**	• Projects • Journals	• Electricity	
Algebra	• Basic Arithmetic Operations • Patterns and sequences	Employ algebraic reasoning through the use of expressions, equations and formulae to interpret, model and solve problems involving unknown quantities.		1.) Represent a mapping by a) Mapping Rule b) A mapping Diagram c) As a set of ordered pairs 2.) Recognize and give examples of each of the following types of mapping a) One to one b) One to Many c) Many to One d) Many to Many	**2 weeks**	• Homework Ongoing • Classwork Ongoing • End of unit Test • Games	• Textbook • Worksheets • Manipulatives • Mobile device • Speaker	Without relating to Algebraic Equations, state the mapping rule as an arithmetic operation(s) on a term to result in another. Objectives on the Cartesian plane taken from Grade 7 APSE 1.

				3.) Write ordered pairs as coordinates of points. 4.) Plot ordered pairs of numbers on the Cartesian plane. 5.) Read and Identify points on the Cartesian Plane 6.) Connect points on the Cartesian plane to form patterns.		• Projects • Journals • Exercises	• Projector • Electricity • Graph Leaves	It is significant to explore the features and characteristics of a Cartesian plane including: • The *x* and *y* axis • Relations amongst vertical/ Horizontal lines and *x* and *y* values from an ordered pair. • The 4 quadrants. • Definition of a plane and the uniformly placed increments along the *x* and *y* – axis. • Possible suggestions to Geometry in terms of area. • Coordinates representing a location on a plane.