

MINISTRY OF GENERAL EDUCATION

MATHEMATICS GRADE 8 SCHEME

SCHOOL: _____

TERM: ONE

WEEK	TOPIC/CONTENT	OUTCOMES	REFERENCE	EXPECTED NUMBER OF LESSONS	REMARKS/ COMMENT
1	Catch-up programs and orientation			3 lessons	
2-4	<u>SETS</u> <ol style="list-style-type: none"> 1. Definitions 2. Set builder notation 3. Intersection of sets 4. Complement of a set 5. Set operations 6. Applications on sets 7. Fortnightly tests 	<ul style="list-style-type: none"> ➤ Define and describe a set ➤ Interpret the set builder notation; $\{x: x > 2, x \in z\}$ ➤ Find the intersection set involving up to 3 sets ➤ Interpret the set complement including its symbols ➤ Use single set operation symbols ➤ Use combined set operation symbols ➤ Apply simple operations on sets 	<ul style="list-style-type: none"> ➤ Longman mathematics Grade 8 pupils B.k. pg 1-10 ➤ Progress in math book 8 	9 lessons	
5-6	<u>INTERGERS</u> <ol style="list-style-type: none"> 1. Definition 2. Number line 3. Addition and subtraction of integers 	<ul style="list-style-type: none"> ➤ Add and subtract integers with and without using a number line ➤ Multiply and divide integers 	<ul style="list-style-type: none"> ➤ Longman mathematics pupils Bk 8. Pg 12-17 ➤ Progress in 	6 lessons	

	Multiplication and division of integers tests		mathematics book 8		
7-9	<p><u>APPROXIMATION AND ESTIMATION</u></p> <ol style="list-style-type: none"> 1. Approximation and estimation 2. Scientific notation 3. Apply the concept of approximation 4. tests 	<ul style="list-style-type: none"> ➤ Express numbers to given significant figure ➤ Estimate measures or quantities ➤ Round off numbers to specified degree of accuracy ➤ Express numbers in scientific notation or standard form ➤ Approximate numbers in scientific notation to given degree of accuracy ➤ Apply the concept of approximation in real life 	<ul style="list-style-type: none"> ➤ Longman mathematics pupils book 8. Pg 18-27 ➤ Progress in mathematics book 8 	9 lessons	
10- 11	<p><u>RATIO AND PROPORTION</u></p> <ol style="list-style-type: none"> 1. Ratio 2. proportional parts 3. tests 	<ul style="list-style-type: none"> ➤ Define ratio ➤ Solve problems that involve ratio and proportion; this should include direct and indirect proportions and any other problem 	<ul style="list-style-type: none"> ➤ Longman mathematics pupils book 8. Pg 28-33 ➤ Progress in mathematics book 8 	6 lessons	
12-13	end of term tests				

- Any other reference book apart from the ones specified may be use

MINISTRY OF GENERAL EDUCATION

MATHEMATICS GRADE 8 SCHEME

TERM: TWO

WEEK	TOPIC/CONTENT	OUTCOMES	REFERENCE	EXPECTED NUMBER OF LESSONS	REMARKS/ COMMENT
1-4	<p><u>ALGEBRAIC EXPRESSIONS AND FORMULA</u></p> <ol style="list-style-type: none"> 1. Algebraic expressions 2. Substitutions 3. Simple linear equations 4. Construction of formulae <p>END OF TOPIC TEST</p>	<ul style="list-style-type: none"> ➤ Formulate algebraic expressions ➤ Simplify algebraic expressions ➤ Apply distributive law in simplifying algebraic expressions ➤ Evaluate algebraic expressions ➤ Solve simple equations using the additive and multiplicative inverse ➤ Construct formula from given statement 	<ul style="list-style-type: none"> ➤ Longman mathematics pupils Bk 8. Pg 34-49 ➤ Progress in mathematics Bk 8 	12 lessons	
5-7	<p><u>SOCIAL AND COMMERCIAL ARITHMETIC</u></p> <ol style="list-style-type: none"> 1. Simple and compound interest 2. Utility bills, Bank and Post office 	<ul style="list-style-type: none"> ➤ Calculate simple and compound interest ➤ Calculate utility bills, bank and postal charges ➤ General simple budget ➤ Calculate insurance, premium and policy cover 	<ul style="list-style-type: none"> ➤ Longman mathematics pupils Bk 8. Pg 50-69 ➤ Progress in mathematics Bk 8 	9 lessons	

	<ul style="list-style-type: none"> 3. Budgeting 4. Insurance and Assurance 5. Hire purchase <p>END OF TOPIC TEST</p>	<ul style="list-style-type: none"> ➤ Calculate cost of goods bought on hire purchase 			
8	<p><u>CARTESSIAN PLANE</u></p> <ul style="list-style-type: none"> 1. The Cartesian graph 2. Equation of a straight line <p>END OF TOPIC TEST</p>	<ul style="list-style-type: none"> ➤ Draw the XOY-palne ➤ Plot and read the ordered pair (x,y) on the XOY- plane ➤ Join different points on the Cartesian plane ➤ Graph straight lines 	<ul style="list-style-type: none"> ➤ Longman mathematics pupils Bk 8. Pg 72-79 ➤ Progress in mathematics Bk 8 	3 lessons	
9-10	<p><u>FUNCTIONS</u></p> <ul style="list-style-type: none"> 1. Relations 2. Mappings 3. Set of ordered pairs 4. Linear Graphs <p>End of topic test</p>	<ul style="list-style-type: none"> ➤ Describe different types of relationships ➤ Map functions to show relationships ➤ Identify mappings from arrow diagrams ➤ Find the range of the function given the domain ➤ Find the function given a set of ordered pairs ➤ Draw graphs of linear functions ➤ Solve problems involving functions 	<ul style="list-style-type: none"> ➤ Longman mathematics pupils Bk 8. Pg 88-99 ➤ Progress in mathematics Bk 8 	6 lessons	
11-12	<p><u>SOLID SHAPES</u></p> <ul style="list-style-type: none"> 1. three dimensional shapes <p>End of topic test.</p>	<ul style="list-style-type: none"> ➤ Identify cones and pyramids ➤ Draw nets of cones and pyramids ➤ Draw/sketch of cones and pyramids 	<ul style="list-style-type: none"> ➤ Longman Mathematics Pupils Bk 8. Pg 106-114 ➤ Progress in Mathematics BK8 	4 lessons	
12-13	REVISION AND END OF TERM TEST				

MINISTRY OF GENERAL EDUCATION
MATHEMATICS GRADE 8 SCHEME
TERM: THREE

WEEK	TOPIC/CONTENT	OUTCOMES	REFERENCE	EXPECTED NUMBER OF LESSONS	REMARKS/ COMMENT
1-3	<p><u>MENSURATION</u></p> <ol style="list-style-type: none"> 1. Area 2. Volume 3. Density <p>End of topic test</p>	<ul style="list-style-type: none"> ➤ Find the total surface area of a cylinder and triangular prism ➤ Calculate the volume of a cylinder and triangular prism ➤ Describe density ➤ Calculate density of regular objects 	<ul style="list-style-type: none"> ➤ Longman mathematics pupils Bk 8. Pg 115-127 ➤ Progress in mathematics Bk 8 	9 lessons	
4-6	<p><u>ANGLES</u></p> <ol style="list-style-type: none"> 1. Related angles 2. Angles associated with straight lines <p>End of topic test</p>	<ul style="list-style-type: none"> ➤ Identify related angles ➤ Find angles associated with straight lines ➤ Find angles of elevation and depression ➤ Solve problems related to real life 	<ul style="list-style-type: none"> ➤ Longman mathematics pupils Bk 8. Pg 131-152 ➤ Progress in mathematics Bk 8 	9 lessons	
7-8	<p><u>GEOMETRICAL CONSTRUCTIONS</u></p> <ol style="list-style-type: none"> 1. Construction of angles 	<ul style="list-style-type: none"> ➤ Construct 60°, 90° angles using a ruler and a compass ➤ Construct angle bisectors using a ruler and a compass 	<ul style="list-style-type: none"> ➤ Longman mathematics pupils Bk 8. Pg 155-160 	6 lessons	

	<ol style="list-style-type: none"> 2. Construction of lines 3. End of topic test. 	<ul style="list-style-type: none"> ➤ Use ruler and compass to construct parallel lines ➤ Construct perpendiculars using ruler and compass ➤ Relate construction to real life problems 	<ul style="list-style-type: none"> ➤ Progress in mathematics Bk 8 		
9-11	<p><u>STATISTICS</u></p> <ol style="list-style-type: none"> 1. Methods of data collection 2. Data presentations 3. Measures of central tendency 4. Application <p>End of topic test</p>	<ul style="list-style-type: none"> ➤ Identify methods of data collection ➤ Present data on histograms and frequency polygons ➤ Draw frequency tables of grouped data ➤ Construct and interpret graphs of given data ➤ Find the mean for grouped and ungrouped data ➤ Identify uses of statistics 	<ul style="list-style-type: none"> ➤ Longman Mathematics Pupils Bk 8. Pg 170-194 ➤ Progress in Mathematics BK8 	9 lessons	
12-13	REVISION AND END OF TERM TEST				

NOTE

Two topics ie *Number Bases and Computers* were proposed to be pushed to grade 9 2017 due to time and other activities that interrupt the learning process.