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# MATHEMATICS SCHEME OF WORK

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<b>Term I – 05/9/2016 – 16/12/2016</b>	<b>No of weeks : 15</b>
<b>Forms : 1P/J/M</b>	<b>No. of periods per week: 4</b>

## For use with *Caribbean ST Mathematics 3<sup>rd</sup> Edition*

*(N.B. This is just a rough plan. The duration and date of lessons may be adjusted as time progresses. It is envisioned that at least 8 chapters of the text will be completed. If time is available additional work will be done. Teaching time missed for exams (end of year and continuous assessments), Prize Day, Pres Day, TTUTA Day and any ad-hoc situations have been factored)*

### Mathematics Form One Scheme of Work: Term One

LESSON	TOPIC	SUB-TOPIC	OBJECTIVES	LEARNING/TEACHING RESOURCES	REFERENCES	REMARKS	WK
1	Natural numbers	Place value of numbers	By the end of the lesson, the learner should be able to identify, read and write natural numbers in figures and words.	<ul style="list-style-type: none"> <li>Charts to show place values of numbers</li> <li>The Abacus</li> <li>Bank cheques and statements</li> <li>Bills</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>pages 1–3</li> <li>Ex 1a –</li> <li>Q 1d,4e,9,12</li> </ul>	HW Students are to review work done in class	1
2	Natural numbers	Round off numbers	By the end of the lesson, the learner should be able to round off numbers to the nearest ten, hundred, thousand, million and billion.	<ul style="list-style-type: none"> <li>Charts to show the rounding off of numbers</li> <li>Number line</li> <li>Scales on a ruler, thermometer, Vernier calipers.</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>pages 13 -14</li> <li>Ex 1k Q1 – 20,</li> </ul>	HW Ex 1k, Q40 - 50	1
3-4	Natural Numbers	Arithmetic Operations + , -	By the end of these lessons, the learner should be able to appreciate the place value of digits in addition and subtraction and to execute those operations.	<ul style="list-style-type: none"> <li>Power Point showing applications of various skills</li> <li>Classroom instruments</li> <li>Ruler, protractor.</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>pages 6–10</li> <li>Addition Q 9,14,15,44 (E1c)</li> <li>Subtraction Q 13,33, 35 (E1f)</li> </ul>	HW EX 1c ,41,45 EX 1d 11,12 EX 1f 36, 28 EX 1j 8,10	2

**Class Test – Questions based on lessons 1-4 (40 minutes)**

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5-6	Natural numbers	Arithmetic Operations $\times, /$	By the end of these lessons, the learner should be able to multiply and divide whole numbers as well as estimate the results of operations	<ul style="list-style-type: none"> <li>Power Point showing applications of various skills</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>pages 16-24</li> <li>Ex 2a Q 45-45</li> <li>Ex 2c Q 25-30</li> <li>Ex 2h Q54-60</li> </ul>	<b>HW</b> <b>EX 2d Q 42-45</b> <b>Ex 2e Q 8-10</b>	<b>2</b>
7-8	Natural Numbers	Arithmetic Operations and Brackets	By the end of these lesson, the learner should be able to identify and evaluate problems involving the use of brackets and mixed arithmetic operators.	<ul style="list-style-type: none"> <li>Markers (different colors)</li> <li>whiteboard</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>pages 26-29</li> <li>EX 2j 20-30</li> </ul>	<b>HW</b> <b>EX 2k 20-30</b>	<b>3</b>

**Class Test – Questions based on lessons 5-8 (40 minutes)**

1-2	Sets	Symbols and notations	By the end of these lessons, the learner should be able to define and express mathematically some of the terms and expressions used in set theory	<ul style="list-style-type: none"> <li>Class list</li> <li>Mathematical instruments</li> <li>snacks</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>pages 38-45</li> <li>EX 3b Q1-20</li> <li>Ex 3d Q 1 -16</li> </ul>	<b>HW</b> <b>Ex 3b Q24-26</b> <b>Ex 3d Q 16-26</b>	<b>3</b>
3-4	Sets	Venn Diagrams	By the end of these lessons, the learner should be able to use Venn diagrams to express the relationship between elements.	<ul style="list-style-type: none"> <li>Markers (different colors)</li> <li>Whiteboard</li> <li>laptops</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>pages 46-52</li> <li>EX 3i Q1-10</li> <li>Ex 3jQ 1 -16</li> <li>Ex 3k 5-10</li> </ul>	<b>HW</b> <b>EX 3L</b> <b>Q 1-10</b>	<b>4</b>

**Class Test – Questions based on lessons 1-4 (40 minutes)**

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LESSON	TOPIC	SUB-TOPIC	OBJECTIVES	LEARNING/TEACHING RESOURCES	REFERENCES	REMARKS	DATE/WK
1	Factors and multiples	Prime factors	By the end of the lesson, the learner should be able to define a prime number and express numbers as a product of prime factors.	<ul style="list-style-type: none"> <li>Charts to show the factorization of numbers</li> <li>Factor-tree diagrams</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>pages 53-59</li> <li>Ex 4f 1-18</li> </ul>	<b>HW</b> <b>EX 4f</b> <b>Q 19-21</b>	4
2	Factors and multiples	Factors in power form	By the end of the lesson, the learner should be able to express factors in power form.	<ul style="list-style-type: none"> <li>Charts to show the factorization of numbers</li> <li>The multiplication table</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>pages 53-59</li> <li>Ex 4c 1-5</li> <li>EX 4e 1-32</li> </ul>	<b>HW</b> <b>Questions to be given in class.</b>	4
3	Factors and Multiples	Divisibility of numbers	By the end of the lesson, the learner should be able to test the divisibility of numbers by 2, 3, 5, and 9.	<ul style="list-style-type: none"> <li>Divisibility test charts</li> <li>Multiplication table</li> <li>Prime numbers</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>Page 58</li> <li>Ex 48 Q 1-11</li> </ul>	<b>HW</b> <b>Questions to be given in class.</b>	5
4	Highest common factor HCF	HCF	By the end of the lesson, the learner should be able to find the HCF of a set of numbers and apply HCF in real-life situations.	<ul style="list-style-type: none"> <li>Charts to demonstrate how to get HCF</li> <li>Multiplication tables</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>page 60</li> <li><b>EX 4i Q 1-9</b></li> </ul>	<b>EX 4i</b> <b>Q9-12</b>	5

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LESSON	TOPIC	SUB-TOPIC	OBJECTIVES	LEARNING/TEACHING RESOURCES	REFERENCES	REMARKS	DATE/WK
5	Factors and Multiples	LCM	By the end of the lesson, the learner should be able to find the least common multiple of a set of numbers and apply the knowledge of LCM in real-life situations.	<ul style="list-style-type: none"> <li>• Multiplication tables</li> <li>• Natural numbers</li> <li>• Prime numbers</li> <li>• Even numbers</li> <li>• Odd numbers</li> <li>• Multiples of numbers</li> </ul>	<b>Caribbean STP Mathematics</b> page 61 Ex 4j 1-8	<b>EX 4j</b> <b>Q9-12</b>	5

**Class Test – Questions based on lessons 1-5 (40 minutes)**

LESSON	TOPIC	SUN-TOPIC	OBJECTIVES	LEARNING/TEACHING RESOURCES	REFERENCES	REMARKS	
1	Fractions	The meaning of fractions	By the end of the lesson, the learner should be able to identify and write fractions in figures.	<ul style="list-style-type: none"> <li>• Charts to demonstrate the different types of fractions and operations involving them</li> </ul>	<b>Caribbean STP Mathematics</b> • Pages 64–68 • Ex 5b Q1-16	<b>HW</b> <b>Ex 5b Q17-19</b>	6
2	Fractions	Equivalent fractions	By the end of the lesson, the learner should be able to identify equivalent fractions.	<ul style="list-style-type: none"> <li>• Sticks</li> <li>• Pieces of paper</li> <li>• Ruler</li> </ul>	<b>Caribbean STP Mathematics</b> • Pages 68-69 • EX 5c Q 7-30	<b>HW</b> <b>Ex 5c</b> <b>Q32-38</b>	6
3	Fractions	Naming fractions	By the end of the lesson, the learner should be able to name fractions correctly and convert an improper fraction to a mixed number and vice versa.	<ul style="list-style-type: none"> <li>• Counters such as seeds, bottle tops, stones</li> <li>• Pieces of paper</li> </ul>	<b>Caribbean STP Mathematics</b> • pages 78–80 • EX 5I & 5M	<b>HW</b> <b>Questions to be given in class.</b>	6
4-5	Fractions	Adding and subtracting fractions	By the end of these lessons, the learner should be able to add and subtract fractions.	<ul style="list-style-type: none"> <li>• Demonstrations</li> <li>• Oranges</li> <li>• Sticks</li> <li>• Pieces of paper</li> <li>• Counters</li> </ul>	<b>Caribbean STP Mathematics</b> • p73-75, • P79-81 • <b>Ex 5g 13-24</b> • <b>Ex 5h 19-24</b>	<b>HW</b> <b>Questions from mixed exercises</b> <b>Pages 82-84</b>	7

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6-7	Fractions	Multiplication and division of fractions	By the end of these lessons, the learner should be able to perform multiplication and division on fractions.	<ul style="list-style-type: none"> <li>• Sticks</li> <li>• Stones</li> <li>• Seeds</li> <li>• Pieces of paper</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>• pages 86-90</li> <li>• EX 6c 25-36</li> <li>• <b>Ex 6f 22-29</b></li> </ul>	<b>HW</b> <b>Ex 6c 26-30</b> <b>Ex 6g 15-20</b>	7
8	Fractions	Mixed Operations	By the end of this lessons, the learner should be able to solve problems involving mixed operations on fractions	<ul style="list-style-type: none"> <li>• Sticks</li> <li>• Stones</li> <li>• Seeds</li> <li>• Pieces of paper</li> </ul>	<b>Caribbean STP Mathematics</b> <b>P 92-97</b> <b>Ex 6i 22-30</b> <b>Ex 6j 34-40</b>	<b>HW</b> <b>Questions from mixed exercises</b> <b>Pages 96-97</b>	8

**Class Test – Questions based on lessons 1-8 (40 minutes)**

LESSON	TOPIC	SUB-TOPIC	OBJECTIVES	LEARNING/TEACHING RESOURCES	REFERENCES	REMARKS	
1	Decimals	Fractions and decimals	By the end of the lesson, the learner should be able to convert fractions to decimals and vice versa.	<ul style="list-style-type: none"> <li>• Equivalent fractions</li> <li>• Calculators</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>• pages 98–100</li> <li>• <b>Ex 7b 25-35</b></li> <li>• <b>Ex 7c 1-12</b></li> </ul>	<b>HW</b> <b>EX 7b 27-36</b>	7

2	Decimals	Addition and subtraction of decimals	By the end of the lesson, the learner should be able to add and subtract decimals.	<ul style="list-style-type: none"> <li>• Place value charts</li> <li>• Calculators</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>• pages 102-105</li> <li>• EX 7d 10-18</li> <li>• Ex 7e 25-30</li> </ul>	<b>HW</b> EX 7d 19-25 Ex 7e 31-36	7
3–4	Decimals	Multiplication and division	By the end of these lessons, the learner should be able to multiply and divide decimal numbers by whole numbers	<ul style="list-style-type: none"> <li>• Place value charts</li> <li>• Calculators</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>• pages 106–112</li> <li>• EX 7 j 1-33</li> <li>• Ex 7k 10-18</li> </ul>	<b>HW</b> EX 7j 37-60 Ex 7k 19-24	8
6-8	Decimals	Multiplication and division	By the end of these lessons, the learner should be able to multiply and divide decimal numbers by other decimal numbers	<ul style="list-style-type: none"> <li>• Place value charts</li> <li>• Calculators</li> </ul>	<b>Caribbean STP Mathematics</b> <ul style="list-style-type: none"> <li>• pages 114–117</li> <li>• Pages 124-127</li> <li>• EX 8c 13-18</li> <li>Ex 8i 20-30</li> </ul>	<b>HW</b> EX 8c 19-24 Ex 8i 31-36	8

**Class test – Questions based on lessons 1-8**