

SCHEME OF WORK 2018/2019

FORM THREE : TERM I

This order of work is intended for the particular form three group at Naparima College at this point in time. It should not be assumed that this order or content may be suitable to any other group unless it is properly examined by the respective class teacher.

This order of work is intended to cover the NCSE syllabus as well as prepare students for their entry into Form IV Mathematics and Additional Mathematics classes at Naparima College.

Date	Lesson Number	Topic/Teaching Points	Methods & Resources
WEEK 1	1	NUMBER <ul style="list-style-type: none"> • Natural numbers (N) • Whole numbers (W) • Integers (Z, Z^+, Z^-) • Rational numbers (Q) • Irrational numbers • Real Numbers (R) • $N \subset W \subset Z \subset Q \subset R$ • Location of numbers on the Number Line. • Prime numbers 	Resource: STP 3
	2	NUMBER <ul style="list-style-type: none"> • Factors/Prime factors • Highest Common Factor • Multiples/Composite numbers • Squares & Square roots • Lowest Common Multiple • Worded questions on HCF & LCM 	
	3	NUMBER <ul style="list-style-type: none"> • Fractions & Mixed numbers • Relative sizes of fractions • Division by zero and the concept of Infinity (∞) • Finite and infinite decimals • Recurring decimals 	
	4	NUMBER – Operations <ul style="list-style-type: none"> • Commutative law for addition • Associative law for addition • Additive Inverse • Addition & Subtraction of fractions 	

WEEK 2	5	NUMBER – Operations <ul style="list-style-type: none"> • Commutative law for multiplication • Associative law for multiplication • Multiplication & Division of fractions • Multiplicative Inverse/Reciprocals • Multiplication & Division of decimals 	
	6	LAWS OF INDICES <ul style="list-style-type: none"> • $a^n \times a^m = a^{(n+m)}$ • $a^n \div a^m = a^{(n-m)}$ • $a^0 = 1$ • $a^{-n} = \frac{1}{a^n} = \left(\frac{1}{a}\right)^n, a \neq 0$ • Practice questions 	
	7	LAWS OF INDICES <ul style="list-style-type: none"> • $(a^n)^m = a^{nm} = (a^m)^n$ • $\left(\frac{a}{b}\right)^{-n} = \left(\frac{a^{-n}}{b^{-n}}\right) = \left(\frac{b^n}{a^n}\right) = \left(\frac{b}{a}\right)^n$ $a \neq 0, b \neq 0$ • $\sqrt{a \times b} = \sqrt{a} \times \sqrt{b}$ • $\sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}}$ • Practice questions/worksheet 	
	8	NUMBER – Approximations <ul style="list-style-type: none"> • Decimal places • Standard form • Significant figures • Computation and rough estimates 	
	9	PRIORITY OF OPERATIONS <ul style="list-style-type: none"> • Brackets/Parentheses. {{{{()}}}} • Exponents/Square roots • Of, Multiplication & Division • Addition & Subtraction 	
WEEK 3-4	10	COMPUTATION <ul style="list-style-type: none"> • Multiple operations(BODMAS/PEMDAS) • Worksheet 	
	11	DIRECTED NUMBERS <ul style="list-style-type: none"> • Positive & Negative numbers. • Using a datum(reference point) Eg Altitude (sea level), thermometer (0°C). 	

		<ul style="list-style-type: none"> Addition & Subtraction (using the Number line). 	
	12	DIRECTED NUMBERS <ul style="list-style-type: none"> Multiplication and Division. Multiple operations. 	
	13	ALGEBRA <ul style="list-style-type: none"> Representing numbers using letters. The Distributive law. $a(x \pm y) = ax \pm ay$ Simplifying algebraic expressions. $12y^3 \div 8y$, $2p - (-3p)$, $6(x+3) - 3(5-x)$ Ex. 4a & 4b STP Caribbean Mathematics 	
	14	ALGEBRA <ul style="list-style-type: none"> Solving equations with one unknown. $6x - 4(5 - x) = 4 + 2x$ Ex. 4c, STP Caribbean Mathematics 	
	15	ALGEBRA <ul style="list-style-type: none"> Constructing formulae from worded problems, of the form: $F = g + h$, $P = 2(l + w)$ $L = nR - t$ $M = N + \frac{bK}{r}$ 	
	16	ALGEBRA <ul style="list-style-type: none"> Substitution into formulae Worded problems 	
	Republic Day: 24 th Sept.2018		
	17	ALGEBRA <ul style="list-style-type: none"> Transposition of variables from one side of an equation to the other. Changing the subject of a formula. 	

	18	PERCENTAGES <ul style="list-style-type: none"> • Concept of percentage • Conversion of a percentage to a fraction and a decimal. • Expressing a quantity as a percentage of another. 	
WEEK 5	19	PERCENTAGES <ul style="list-style-type: none"> • Percentage increase • Percentage decrease • Worded problems on income tax 	Worksheet on lessons 1-23
		TTUTA DAY: 12th Oct, 2018	
	20	PERCENTAGES <ul style="list-style-type: none"> • Worded problems on sales. Cost price, Marked price, Sale price, Discounted price Finding the original quantity after a percentage increase or decrease 	
	21	PERCENTAGES <ul style="list-style-type: none"> • Hire Purchase plans 	
	22	PERCENTAGES <ul style="list-style-type: none"> • Simple interest. $S.I. = \frac{P \times R \times T}{100}$ $P = \frac{100 \times S.I.}{R \times T}$, $R = \frac{100 \times S.I.}{P \times T}$, $T = \frac{100 \times S.I.}{P \times R}$ • Problems in which rate and/or time is given as a mixed number. • Amount. $A = P + I$ 	
23	PERCENTAGES <ul style="list-style-type: none"> • Compound interest. Calculating compound interest up to, at most, three years. 		

WEEK 6 & 7	24	PRACTICE SESSION • Solution of problems from worksheet on lessons 1 – 23	
	25	SIMULTANEOUS EQUATIONS • Method of Elimination. Solving simple pairs such as: $x + y = 7$ $3x - y = 9$	
		DIVALI: (TO BE ANNOUNCED)	
	26	SIMULTANEOUS EQUATIONS • Method of Elimination. Solving more difficult pairs such as: $3x + 5y = 4$ $4x - 7y = 19$	
	27	SIMULTANEOUS EQUATIONS • Method of Substitution. Solving simple pairs such as: $x + y = 7$ $3x - y = 9$	
	28	SIMULTANEOUS EQUATIONS	Practice Sessions & Worksheets
WEEK 8	30% COURSEWORK EXAMINATION ON LESSONS 1- 23		
	29	REVIEW OF COURSEWORK EXAMINATION	
	30	SIMULTANEOUS EQUATIONS • Pairs of equations with no solutions $2x + y = 7$ $4x + 2y = 4$	

		<ul style="list-style-type: none"> • Pairs of equations with no solutions $3x + y = 10$ $6x + 2y = 20$ 	
	31	SIMULTANEOUS EQUATIONS <ul style="list-style-type: none"> • Worded problems leading to simple pairs of equations. 	
	32	SIMULTANEOUS EQUATIONS <ul style="list-style-type: none"> • Graphical Solution 	
WEEK 9	33	SIMULTANEOUS EQUATIONS <ul style="list-style-type: none"> • Graphical Solution 	
	34	SIMULTANEOUS EQUATIONS <ul style="list-style-type: none"> • Review questions 	
	35	MATRICES	
	36	MATRICES	
WEEK 10	37	MATRICES	

Form 3:

1. Number/Number Operations
2. Indices
3. Priority of Operations (BODMAS/PEMDAS)
4. Computation
5. Directed Numbers
6. Algebra
7. Percentages
8. Simultaneous Equations
9. Matrices