



Unit Name and Number	Week No.	Content Headings	Key Sub-Topics / Context / Vocabulary	Projects / Graded Assignments	Question Style for Exam	Justification for Exam Content: Bloom's Taxonomy	Government Objectives
Unit. 1 Numbers I	1	Numbers	A. Place values and expanded form of numbers B. Comparing and ordering numbers C. Rounding off numbers	Textbook: pages 7,10,17-18 Workbook: pages 1-6	Multiple choice: (place value, digit value, expanded form, comparing, ordering numbers, round off)	Understand	MA 1.3/1 Estimate whole numbers to the nearest ten thousand, hundred thousand, millions and apply the concept to solve problems.
		Activities: Put students into groups. Groups will have to create five or more than numbers in the billions before comparing and ordering these numbers. Each group will explain the process and present their answer to the class on the board.	Vocabulary: numbers, place value, digit value, ten, hundred, thousand, million, billion, hindu arabic numerals, round off, ones place, tens place, hundreds place, thousands place	Spelling test (10 points for objectives)	n/a	Students will be able to express numbers in expanded form as digit values. And be able to compare large numbers and arrange numbers in ascending and descending order.	
Unit 1. Numbers I	2	Numbers	D. Addition and subtraction E. Solving word problems of addition and subtraction F. Creating word problems of addition and subtraction	Textbook: pages 25-26, 29, 31 Workbook: pages 7-11	(i) Solve the addition and subtraction (ii) Solve word problem (iii) Create your own word problem from the given information	Apply	MA 1.2/2 Analyze and solve multi-step word problems involving addition, subtraction, multiplication and division of whole numbers and create word problem involving four operations of whole numbers.
		Activities: Put students into groups to create addition or subtraction word problems from the given information. Groups will then exchange their word problems and solve. Ensure that students follow all the steps involved in solving word problems.	Vocabulary: add, subtract, solve, more, less, commutative property, associative property, word problem, create	Spelling test (10 points for objectives)	n/a	Students will be able to apply this knowledge to answer the questions, solve the real-life problems and check the validity of the answers.	



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Unit 1. Numbers I	3	Numbers	G. Multiplication and division H. Solving word problems of multiplication and division I. Creating word problems of multiplication and division	Textbook: page 39-40, 43, 45 Workbook: pages 12-19	(i) Find the product (ii) Solve the following division (iii) Solve and create word problem	Apply	MA 1.2/2 Analyze and solve multi-step word problems involving addition, subtraction, multiplication and division of whole numbers and create word problem involving four operations of whole numbers.
		Activities: Put students into groups to create multiplication or division word problems from the given information. Groups will exchange their word problems and solve the word problems.	Vocabulary: multiply, multiplied, product, divide, dividend, divisor, quotient, solve, how many, how much, communicative, associative, distributive	Spelling test (10 points for objectives)	n/a	Students will be able to link the given information to mathematical operations, perform the calculations and obtain the valid answers.	
Unit 1. Numbers I	4	Numbers	J. Mixed operations K. Solving word problems of mixed operations L. Creating word problems of mixed operation	Textbook: pages 48, 51, 54 Workbook: page 20-22	(i) Solve mixed operation showing full working (ii) Solve word problem and create word problems	Create	MA 1.2/2 Analyze and solve multi-step word problems involving addition, subtraction, multiplication and division of whole numbers and create word problem involving four operations of whole numbers.
		Activities: Put students into groups to create a mixed-operation word problem from the given information. Groups will then exchange and solve the questions. And explain the solutions to the class.	Vocabulary: addition, subtraction, multiplication, division, solve, add, subtract, multiply, divide, how many, how much	Spelling test (10 points for objectives)	Additional activity: Workbook: Test yourself pages 23-26	Students will be able to apply the steps to solving mixed operation questions correctly and obtain the valid answers.	



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Unit 1. Numbers I	5	Equation	A. Understanding equations B. Symmetric properties of equations	Textbook: page 61-63, 68 Workbook: pages 27-30	Find the value of variables in equation	Analyse	MA 1.4/1 Use commutative, associative and distributive property in calculation.
		Activities: Choose volunteers to find online examples of equations with variables and constants. Engage the class in identifying the variables and constant in these equations and finding the values be reliable.	Vocabulary: statement, equation, equal, unequal, variable, value, constants, symmetric	Spelling test (10 points for objectives)	n/a	Students will be able to differentiate between equations and unequal mathematical expressions and answer the related questions.	
Unit 1. Numbers I	6	Equation	C. Writing equations D. Solving word problem	Textbook: pages 72-73, 80 Workbook: pages 31-38	(i) Solve the following problem. (ii) Solving word problems by creating own variables and equations.	Understand	MA 4.2/1 Write equations to represent given situations or probleme. Solve the equations and check the answers.
		Activities: Put students into groups to write the information using variables and constants. Groups will exchange the information created and write the equations to represent the information accurately. Volunteers from each group will present their equations obtained from the information to the class.	Vocabulary: less than, more than, distributed equally, total	Spelling test (10 points for objectives)	Additional activity: Workbook: Test yourself pages 39-42	Students will understand the process of writing equations to represent the given information accurately.	



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Unit 1. Numbers I	7	Factors	A. Factors and multiples B. Prime numbers and factorization	Textbook: pages 87-89, 93-95 Workbook: pages 43-47	Multiple choice: (i) Factors and multiples of numbers (ii) Find products and quotients of numbers using factors (iii) Express numbers given as products of prime factors	Understand	MA 1.4/2 Find the highest common factor (H.C.F.) and the lowest common multiple (L.C.M.) of whole numbers
		Activities: Put students into groups. Each group will perform prime factorization on three numbers that they create. Volunteers from each group will present and explain their solutions to the class.	Vocabulary: factor. Multiple, prime number, prime factor, prime factorization	n/a	n/a	Students will be able to correctly identify factors and multiples. List the factors of the given numbers and check the validity of the answers.	
Unit 1. Numbers I	8	Factors	C. Greatest common divisor D. Solving word problem	Textbook: pages 104 Workbook: pages 48-50	(i) Find the common factors of sets of numbers given. (ii) Find the GCD of numbers given using repeated short division.	Analyse	MA 1.4/2 Find the highest common factor (H.C.F.) of whole numbers.
		Activities: Put students into groups to find online exercises of word problems involving GCD. Each group will exchange the exercises with each other and solve them.	Vocabulary: divisor, multiple, greatest, common, greatest common divisor	n/a	n/a	Students will be able to find the value of GCD of the given number correctly.	
Unit 1. Numbers I	9	Factors	C. Lowest common multiple D. Solving word problem	Textbook: pages 105 Workbook: pages 51-54	(i) Find the common multiple of sets of numbers given. (ii) Find the LCM of numbers given using repeated short division.	Analyse	MA 1.4/2 Find the lowest common multiple (L.C.M.) of whole numbers.



St. Joseph Rayong School
Course Outline

1st Semester grade 6 Curriculum - Math (2018-19)

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		Activities: Put students into groups to find online exercises of word problems involving LCM. Each group will exchange the exercises with each other and solve them.	Vocabulary: multiple, lowest, non-prime factors, equal, least, lowest common multiple	Spelling test (10 points for objectives)	Additional activity: Workbook: Test yourself pages 59-62	Students will be able to find the value of LCM of the given number correctly.	



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Unit 1. Numbers I	10	Parallel lines Activities: Put students into groups. Groups will brainstorm a real-life situations where they can identify lines using the properties of alternate angles and interior opposite angles.	A. Alternate angles and parallel lines B. Interior opposite angles and parallel lines C. Identifying parallel lines Vocabulary: alternate, angle, line, parallel, interior, intersection, opposite, identify, equal, not equal	Textbook: page 121 Workbook: pages 63-68 Spelling test (10 points for objectives)	(i) Find alternate and interior opposite angles. (ii) Identify parallel lines from given pictures Additional activity: Workbook: Test yourself pages 69-71	Analyse Students will understand the relationship between parallel lines and interior opposite angles formed by the intersection of those line.	MA 3.1/3 Identify parallel lines
Midterm Exam	11	A. Numbers B. Equations C. Factors 4. Parallel lines Activities:	1. Multiple choice: (numbers, equations, parallel lines) {20 items (10 points)} 2. Solve the given problem {4 items (6 points)} 3. Find the GCD and LCM of the following numbers using repeated short division {8 items (4 points)}				
Unit 2. Directions and Fractions	12	Maps and direction Activities: Put students into groups. Each group will write down the name of an object in the classroom that is located on different cardinal and intercardinal points. Present and explain their answers to the class.	A. Cardinal points B. Identifying positions and directions using cardinal points C. Scales Vocabulary: cardinal point, north, south, east, west, intercardinal point, northeast, southeast, southwest, northeast, position, direction, compass	Textbook: pages 129, 132-133, 135 Workbook: pages 73-78 Spelling test (10 points for objectives)	(i) Name cardinal and intercardinal points (ii) Identify positions and directions using cardinal (iii) Explain given plans n/a	Apply Students will understand and be able to identify cardinal and intercardinal points correctly.	MA 2.1/1 Describe rout or tell a location by specifying the directions and the actual distance from diagrams, maps and plans.



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Unit 2. Directions and Fractions	13	Maps and direction	D. Reading plans E. Creating plans and maps	Textbook: pages 138-139, 144 Workbook: pages 79-84	(i) Read given plans (ii) Create plans according to given information	Understand	MA 2.2/3 Draw a map specifying location and route map.
		Activities: Put students into groups. Each group will create a scale drawing of a rectangle object found in the classroom.	Vocabulary: compass, scale, direction, plan, information	Spelling test: (10 points for objective)	Additional activity: Workbook: pages 85-88	Students will understand and be able to read the information in the plans correctly.	
Unit 2. Directions and Fractions	14	Fractions	A. Comparing and ordering fractions B. Adding and subtracting fractions C. Solving addition and subtraction problems with fractions	Textbook: page 150, 155, 158 Workbook: page 89-96	Multiple choice: (Compare and order the given fractions, addition and subtraction of fractions)	Understand	MA 1.1/2 Compare and order fractions and decimals with not more than 2 places
		Activities: Put students into groups to discuss real-life scenarios where they would have to perform addition and subtraction of fractions with different denominators. Each group will present and explain the solutions to the class.	Vocabulary: compare, order, add, total, together, subtract, deduct, word problem	n/a	n/a	Students will be able to perform fractional addition and subtractions to obtain the accurate answers and check the validity of the answers.	



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Unit 2. Directions and Fractions	15	Fractions	D. Multiplying fractions E. Solving multiplication word problems with fractions F. Dividing fractions G. Solving division word problems with fractions	Textbook: pages 161, 163, 168, 170 Workbook: pages 97-104	(i) Multiply and divide given fractions (ii) Solve multiplication and division word problems with fractions	Understand	MA 1.2/1 Add, subtract, multiply and divide fractions; find the answers to multi-step calculation involving addition, subtraction, multiplication and division; judge the reasonableness of answers.
		Activities: Put students into groups to discuss real-life scenarios where they would have to perform multiplication and division of fractions	Vocabulary: multiply, product, divide, order, word problem	n/a	n/a	Students will be able to perform fractional multiplication and division to obtain accurate answers and check the validity of the answers.	
Unit 2. Directions and Fractions	16	Fractions	H. Mixed operations involving fractions and mixed numbers I. Solving mixed operation word problems with fraction	Textbook: pages 173, 175 Workbook: pages 105-110	(i) Solve mixed operations involving fractions and mixed numbers. (ii) Solving mixed operation word problems with fractions.	Understand	MA 1.2/2 Analyse and solve multi-step word problems involving four operations of whole numbers, fractions, mixed numbers, decimals and percentage.
		Activities: Put students into groups to find online exercises on mixed operation problems with fraction. Exchange the exercises with each other and solve them.	Vocabulary: mixed-operation, order operation, brackets, calculate, equally	Spelling test: (10 points for objective)	Additional activity: Workbook: pages 111-113	Students will be able to apply the steps to solving mixed-operation problems correctly and obtain the valid answers.	



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Unit 3. Numbers II	17	Decimals	A. Three place decimals B. Comparing and ordering decimals C. Converting decimals D. Rounding off decimals	Textbook: page 8-10, 15-16, 22-23, 26-28 Workbook: pages 1-8	Multiple choice: (Express given decimals in words, expand given decimals, convert decimals, round off)	Understand	MA 1.1/1 Read and write decimals (up to 3 decimal places) MA 1.1/2 Compare and order fractions and decimals (up to 3 decimal places)
		Activities: Put students into groups to create three different three-place decimal numbers and compare and order the different decimals.	Vocabulary: decimal, place, covert, rounding off, comparing, fraction, denominator, simplest form, thousandths place, hundredths place, tenths place	Spelling test: (10 points for objective)	Additional activity: Workbook pages 9-12	Students will be able to create figures related to decimals and apply their knowledge correctly to solve the related problems.	MA 1.1/3 Express a decimal as a fraction and express a fraction as a decimal MA 1.3/2 Estimate decimals up to 3 decimal places
Unit 3. Numbers II	18	Operations of decimals	A. Adding and subtracting decimals B. Multiplying and dividing decimals C. Solving word problems with decimals D. Creating word problems with decimals	Textbook: page 41, 50-51, 58-59, 64-67 Workbook: pages 13-29	(i) Solve addition and subtraction of decimals (ii) Solve multiplications using repeated addition and vertical multiplication (iii) Solve given questions using long division (iv) Solve given word problems and create word problems	Apply	MA 1.2/1 Add, subtract, multiply and divide fractions, mixed numbers, and decimals; find the answers to multi-step calculation involving addition, subtraction, multiplication and division; judge the reasonableness of answers.
		Activities: Put students into four groups. Each group discuss real-life scenarios where they would have to perform addition, subtraction, multiplication and division of decimal numbers. Each group will present the solution to the class.	Vocabulary: decimal, add, subtract, multiply, divide, decimal places, vertical, borrowing, approximately, distance, nearer than	n/a	n/a	Students are able to apply this knowledge correctly to answer to the related questions. And will understand the steps involved in solving word problems with decimals by using the four operations.	



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Unit 3. Numbers II	19	Operations of decimals	E. Mixed operations with decimals F. Solving mixed operation word problems G. Creating mixed operation word problems	Textbook: page 71, 73, 77 Workbook: pages 30-35	(i) Solve given mixed operations with decimals (ii) Solve given mixed operation word problems with decimals (iii) Create mixed operations word problems from given information	Apply	MA 1.2/2 Analyze and solve multi-step word problems involving addition, subtraction, multiplication and division of whole numbers, fractions, decimals and percentages; judge the reasonableness of answers and create word problem involving four operations of whole numbers.
		Activities: Put students into groups to create mixed operation word problems with the given decimal numbers and check the validity of the word problems they have created. And then exchange to other's word problems. Present and explain their solutions to the class.	Vocabulary: order operation, bracket, calculate, left, math ideas, distance, length, weight, money, capacity	Spelling test: Wk 17-19 (10 points for objectives)	Additional activity: Workbook: Test pages 36-39	Students will be able to apply the steps to solving mixed operation problems correctly and check the validity of the answers.	
Final	20	A. Maps and direction B. Fractions C. Decimals D. Operation of decimals Activities:	1. Multiple choice: (fractions, decimals) { 20 items (10 points)} 2. Solve the mixed operation of fraction and word problem (8 points) 3. Solve the mixed operation of decimals and word problem (6 points) 4. Study the plan and answer the questions below. (maps and direction) (6 points)				