Course Description

Subject: Mathematics 2   **Subject Code: MA12101**   **5 Periods / Week**   **5.0 Credits**

Class: Primary 2A-B   **Semester 1-2/2014**   **Instructor: Mr. Enrico & Ms.Nittaya**

Unit	Standard	Indicators

1. Numbers up to 1,000
 	
  1.1 Reading and writing numbers 1-1000 (Asean)
  1.2 Place value
  1.3 Expanded form
  1.4 Comparison and order relation
  1.5 Number patterns
  1.6 Position
	M 1.1
	
	M 4.1
	
	M 6.1
		P.2/1 Write and read Hindu-Arabic and Thai numerals and written forms showing quantity of objects or cardinal numbers not exceeding 1,000, and 0.
		P.2/2 Compare and arrange sequence of cardinal numbers not exceeding 1,000, and 0.
		P.2/1 Tell the numbers and relations in patterns of numbers that increases by 5s, 10s and 100s, and decreases by 2s, 10s and 100s.
		P.2/3 Suitably provide reasoning for decision-making and appropriately present the conclusions reached.
		P.2/4 Accurately use mathematical language and symbols for communication of concepts and presentation

2. Addition and subtraction within 100
 	
  2.1 Addition within 100
  2.2 Subtraction within 100
  2.3 Word problems
	M 1.2
	
	M 6.1
		P.2/1 Add, subtract and mix addition and subtraction of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers.
		P.2/2 Analyse and find answers to problems and mix-problems of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers.
		P.2/1 Apply diverse methods for problem-solving.
		P.2/2 Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations.

3. Addition and subtraction within 1,000
 	
  3.1 Addition within 1000
  3.2 Subtraction within 1000
  3.3 Word problems
	M 1.2	P.2/1 Add, subtract and mix addition and subtraction of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers.
		P.2/2 Analyse and find answers to problems and mix-problems of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers.

Unit	Standard	Indicators
	M 6.1	P.2/1 Apply diverse methods for problem-solving. P.2/2 Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations. P.2/3 Suitably provide reasoning for decision-making and appropriately present the conclusions reached. P.2/4 Accurately use mathematical language and symbols for communication of concepts and presentation P.2/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines P.2/6 Attain ability for creative thinking

4. Length
  4.1 Measuring length in meters and centimeters and measuring distance
  4.2 Comparing lengths (Botany)
  4.3 Word problems
	M 2.1	P.2/1 Tell length in metres and centimetres, and compare length by using the same unit.

	M 2.2	P.2/1 Solve problems involving measurement of length, weight, volume and money.
	M 6.1	P.2/1 Apply diverse methods for problem-solving. P.2/2 Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations. P.2/3 Suitably provide reasoning for decision-making and appropriately present the conclusions reached.

5. Mass
  5.1 Measuring mass in kilograms and kheed or hectograms (Local)
  5.2 Comparing masses
  5.3 Word problems
	M 1.2	P.2/1 Add, subtract and mix addition and subtraction of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers.
		
		P.2/2 Analyse and find answers to problems and mix-problems of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers.

	M 2.1	P.2/2 Tell weight in kilograms and grams, and compare weight by using the same unit.
	M 2.2	P.2/1 Solve problems involving measurement of length, weight, volume and money.
	M 6.1	P.2/1 Apply diverse methods for problem-solving. P.2/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines

Unit	Standard	Indicators
	M 1.2	P.2/1 Add, subtract and mix addition and subtraction of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers. P.2/2 Analyse and find answers to problems and mix-problems of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers.

6. Multiplication
  6.1 Meaning of multiplication
  6.2 Multiplication of 1-digit numbers
  6.3 Multiplication of 1-digit numbers by 2-digit numbers
  6.4 Word problems
	M 6.1	P.2/1 Apply diverse methods for problem-solving.
		 P.2/2 Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations.
		 P.2/4 Accurately use mathematical language and symbols for communication of concepts and presentation
		 P.2/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines

Semester 2/2014

Unit	Standard	Indicators

7. Division
  7.1 Meaning of division
  7.2 Division of 1‑digit divisors
  7.3 Word problems
	M 1.2	P.2/1 Add, subtract and mix addition and subtraction of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers.
		 P.2/2 Analyse and find answers to problems and mix-problems of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers.

	M 6.1	P.2/1 Apply diverse methods for problem-solving. P.2/4 Accurately use mathematical language and symbols for communication of concepts and presentation P.2/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines

Unit	Standard	Indicators

8. Volume
 	
  8.1 Measuring volume and capacity in liters
  8.2 Comparing volume and capacity
  8.3 Word problems
	M 2.1
	
	M 2.2
	
	M 6.1
		P.2/3 Tell volume and capacity in litres, and compare volume and capacity.
		
		P.2/1 Solve problems involving measurement of length, weight, volume and money.
		
		P.2/2 Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations.
		P.2/3 Suitably provide reasoning for decision-making and appropriately present the conclusions reached.
		P.2/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines

9. Time
 	
  9.1 Reading and writing the time
  9.2 Reading and writing the time in hours and minutes
  9.3 Months of the year
  9.4 Calendar
	M 2.1
	
	M 6.1
		P.2/5 Tell the time on a clock dial (period of 5 minutes).
		P.2/6 Tell the days, months and year from a calendar.
		
		P.2/1 Apply diverse methods for problem-solving.
		P.2/2 Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations.
		P.2/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines

10. Money
 	
  10.1 Coins and bills (Asean)
  10.2 Comparing values of coins and bills
  10.3 Amounts of money
  10.4 Word problems
	M 2.1
	M 2.2
	
	M 6.1
		P.2/4 Tell total amount of money from coins and bank notes.
		
		 P.2/1 Solve problems involving measurement of length, weight, volume and money.
		
		P.2/1 Apply diverse methods for problem-solving.
		P.2/2 Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations.
		P.2/4 Accurately use mathematical language and symbols for communication of concepts and presentation
		P.2/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines

Unit	Standard	Indicators
11.Combined Operations 11.1 Combined Operations 11.2 Word problems	M 1.2	P.2/1 Add, subtract and mix addition and subtraction of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers. P.2/2 Analyse and find answers to problems and mix-problems of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers.
	M 6.1	P.2/1 Apply diverse methods for problem-solving. P.2/2 Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations. P.2/4 Accurately use mathematical language and symbols for communication of concepts and presentation P.2/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines
12. Geometric Shapes 12.1 Two-dimensional shapes 12.2 Three-dimensional shapes 12.3 Shape patterns 12.4 Review for the exam	M 3.1	P.2/1 Identify two-dimensional geometric figures whether in the form of triangles, quadrilaterals, circles or ellipses. P.2/2 Identify three-dimensional figures whether in the form of cuboids, spheres or cylinders. P.2/3 Distinguish between rectangles and cuboids, and between circles and spheres.
	M 3.2 M 4.1	P.2/1 Draw two-dimensional geometric figures by using geometric models. P.2/2 Identify the forms and relations in patterns in which forms are related in one of the following respects: shape, size or colour.
	M 6.1	P.2/3Suitably provide reasoning for decision-making and appropriately present the conclusions reached. P.2/4 Accurately use mathematical language and symbols for communication of concepts and presentation P.2/6 Attain ability for creative thinking

Measurement and Evaluations Semester 1/2014

Total   100   Marks (**Assessment** 60 Marks: Midterm Test / Final Test 60 Marks)

Measurement and Evaluations	Task/ Assignments	Assessment and Evaluation (Tools)	Marks	Standard/ Indicators
1. Pre-Midterm	1. Quiz 2. Course book 3. Participation	1. Mark/score 2. Checking Exercises 3. Observation sheet	25	M 1.1 P.2/1-2 M 1.2 P.2/1-2 M4.1 P.2/1 M 6.1 P.2/1-6
2. Midterm	Examination	Test paper	20	M 1.1 P.2/1-2 M 1.2 P.2/1-2 M4.1 P.2/1 M 6.1 P.2/1-6
3. Post-Midterm	1. Quiz 2. Course book 3. Participation	1. Mark/score 2. Checking Exercises 3. Observation sheet	25	M 1.2 P.2/1-2 M 2.1 P.2/1-2 M 2.2 P.2/1 M 6.1 P.2/1-5
4. Final	Examination	Test paper	20	M 1.2 P.2/1-2 M 2.1 P.2/1-2 M 2.2 P.2/1 M 6.1 P.2/1-5
5. Desirable Characteristics	1. Observation	1. Observation	10	1. Love of nation, religion and king 2. Honesty and integrity 3. Self-discipline 4. Avidity for learning 5. Observance of principles of sufficiency economy philosophy in one's way of life 6. Dedication and commitment to work 7. Cherishing Thai-ness 8. Public-mindedness 9. positive attitude

				towards Mathematics
				10. Awareness of drugs and vices
6. Competencies	1. Observation 2. Asking	1.answering question		1. Communication capacity 2. Thinking capacity 3. Problem solving capacity 4. Capacity for applying life skills 5. Capacity for technological application
7. Reading, Analytical thinking, writing	Solving word problems	Worksheet / Exercise		

Measurement and Evaluations   2/2014

 Total   100   Marks (Assessment 60 Marks: Midterm Test / Final Test 60 Marks)

Measurement and Evaluations	Evaluation Method	Assessment Tool	Marks	Standard/ Indicators
1. Pre-Midterm	1. Quiz 2. Course book 3. Participation	1. Mark/score 2. Checking Exercises 3. Observation sheet	25	M 1.2 P.2/1-2 M 2.1 P.2/3,5,6 M 2.2 P.2/1 M 6.1 P.2/1-5
2. Midterm	Examination	Test paper	20	M 1.2 P.2/1-2 M 2.1 P.2/3,5,6 M 2.2 P.2/1 M 6.1 P.2/1-5
3. Post-Midterm	1. Quiz 2. Course book 3. Participation	1. Mark/score 2. Checking Exercises 3. Observation sheet	25	M 1.2 P.2/1-2 M 2.1 P.2/4 M 2.2 P.2/1 M 3.1 P.2/1-3 M 3.2 P.2/1

				M 4.1 P.2/2
				M 6.1 P.2/1-6
4. Final	Examination	Test paper	20	M 1.2 P.2/1-2
				M 2.1 P.2/4
				M 2.2 P.2/1
				M 3.1 P.2/1-3
				M 3.2 P.2/1
				M 4.1 P.2/2
				M 6.1 P.2/1-6
5. Desirable Characteristics	1. Observation	1. Observation	10	1. Love of nation, religion and king 2. Honesty and integrity 3. Self-discipline 4. Avidity for learning 5. Observance of principles of sufficiency economy philosophy in one's way of life 6. Dedication and commitment to work 7. Cherishing Thai-ness 8. Public-mindedness 9. positive attitude towards Mathematics 10. Awareness of drugs and vices
6. Competencies	1. Observation	1. Observation 2. Asking and answering question	-	Competencies No.1-5
7. Reading, Analytical thinking, writing	Solving word problems	Worksheet / Exercise	-	-

คุณลักษณะอันพึงประสงค์ 10 ข้อ

1. รักชาติ ศาสน์ กษัตริย์   2. ซื่อสัตย์สุจริต
3. มีวินัย   4. ใฝ่เรียนรู้
5. อยู่อย่างพอเพียง   6. มุ่งมั่นในการทำงาน
7. รักความเป็นไทย   8. มีจิตสาธารณะ
9. ปลอดสิ่งเสพติดและอบายมุข   10. มีความเป็นผู้นำและกล้าแสดงออก

สมรรถนะ 5 ข้อ

1. ความสามารถในการสื่อสาร   2. ความสามารถในการคิด
3. ความสามารถในการแก้ปัญหา   4. ความสามารถในการใช้ทักษะชีวิต
5. ความสามารถในการใช้เทคโนโลยี