Course Outline

Department Bilingual   **Name of Subject :** Mathematics   **Code :** ค.12201

Teacher's name :   Ms. Nantawan Monprasit

Level ;

☑ Primary 2   ☐ Secondary …./…. 1st - 2nd Semester / 2014

Subject :

☐ Main Subject   ☑ Optional Subject   ☐ Development Activities for Students   ☐ Others

1) Course Description

Learn to read and write numbers up to 1,000 , compare and order numbers 1,000 , add within 1,000 , subtract within 1,000 , solve 1-step word problems ,multiply numbers and solve word problems, divide numbers and solve word problems, measure length in meters and centimeters , mass in kilograms and grams and volumes in liters and milliliters , add and subtract lengths , mass and volumes , write money in Baht and Stang up to 1,000 Baht , add and subtract money , recognize and name unit fraction up to 1/12 , write time , measure volume in liters , add and subtract volumes , make and read picture graphs with scales , identify straight and curved lines and identify flat and curved faced of solids.

By using Mathematical skills , Solving problems , Analysis , Clarification , Mathematical communications , Presentation ,

Mathematical link and Creative thinking

To be disciplined and devoting to work.

2) Grade-Level Indicators (The Basic Education Core Curriculum)

1. Write and compare numbers up to 1,000
2. Add and solve word problem within 1,000
3. Subtract and solve word problem within 1,000

4. Multiply numbers and solve word problems

5. Divide numbers and solve word problems

6. Measure length in metres and centimetres, mass in kilograms and grams , and volume in litres and militres

7. Add and subtract lengths, mass and volumes

8. Write money in baht and stang up to 1,000 baht

9. Add and subtract of money

10. Recognize and name unit fraction up to $\dfrac{1}{2}$

11. Write the time

12. Measure volume in litres

13. Make and read picture graphs with scales.

14. Identify straight ,curved lines flat and curved faces

15. Identify and name the following shapes in 2D, 3D objects

16. Learning Objectives (1st Semester)

Indicators of Semester	In accordance with government curriculum
1.Write and compare numbers up to 1,000	ค. 1.1, ค. 1.2
2.Add and solve word problem within 1,000	ค. 1.2
3.Subtract and solve word problem within 1,000	ค. 1.2
4.Multiply numbers and solve word problems	ค. 1.2
5.Divide numbers and solve word problems	ค. 1.2
6.Measure length in metres and centimetres, mass in kilograms and grams , and volume in litres and militres	ค. 2.1
7.Add and subtract lengths, mass and volumes	ค. 2.1

17. Analyze the course description to be the contents for teaching. (1st Semester)

Contents (Strand)/ Standards	Indicators	Units of learning / Amounts of Periods	Teaching Materials	How to Evaluate		Maximum marks
				Evaluations	Tools	
ม.1 / ค. 1.1, ค. 1.2	1. Write and compare numbers up to 1,000	**Unit 1: Numbers up to 1,000 (10 periods)** 1.1 Count up to 1,000 1.2 Read and write numbers up to 1,000 1.3 Recognize the place values of ones, tens and hundreds 1.4 Compare and order numbers up to 1,000 1.5 Complete number patterns	1. video 2. textbook 3. exercise 4. song 5. test 6. pictures	1. Do exercise 2. Answering 3. Do the test	1. worksheet 2. practical test 3. questions	30
ม.1 / ค. 1.2	2. Add and solve word problem within 1,000	**Unit 2 : Addition within 1,000** **(5 periods)** 2.1 Add within 1,000 2.2 Add without carrying 2.3 Add with carrying 2.4 Add mentally	1. video 2. textbook 3. exercise 4. song 5. test 6. pictures	1. Do exercise 2. Answering 3. Do the test	1. worksheet 2. practical test 3. questions	10
ม.1 / ค. 1.2	3. Subtract and solve word problem within	**Unit 3: Subtractionwithin1,000** **(5 periods)**	1. video 2. textbook 3. exercise	1. Do exercise 2. Answering 3. Do the test	1. worksheet 2. practical test	10

	1,000	3.1 Subtract within 1,000 3.2 Subtract without carrying 3.3 Subtract with carrying 3.4 Subtract mentally	4. song 5. test 6. pictures		3. questions	
ม.1 / ค. 1.2	4. Multiply numbers and solve word problems	**Unit 4: Multiplication (5periods)** 4.1 Count in steps of 2,3,4,5 and 10 4.2 Build up the multiplication tables of 2,3,4,5 and 10 4.3 Multiply numbers within the multiplication tables of 2,3,4,5 and 10 4.4 Solve 1-step word problems	1. video 2. textbook 3. exercise 4. song 5. test 6. pictures	1. Do exercise 2. Answering 3. Do the test	1. worksheet 2. practical test 3. questions	15
ม.1 / ค. 1.2	5. Divide numbers and solve word problems	**Unit 5: Division (5 periods)** 5.1 Relate division to multiplication 5.2 Build up the division facts of 2,3,4,5 and 10 5.3 Divide numbers within the multiplication tables of 2,3,4,5 and 10 5.4 Solve 1- step word problems	1. video 2. textbook 3. exercise 4. song 5. test 6. pictures	1. Do exercise 2. Answering 3. Do the test	1. worksheet 2. practical test 3. questions	15
ม.2 / ค. 2.1	6. Measure length in metres	**Unit 6: Measurements of length, mass and volume (10 periods)**	1. video 2. textbook	1. Do exercise 2. Answering	1. worksheet 2. practical	20

| | and centimetres, mass in kilograms and grams , and volume in litres and militres
7. Add and subtract lengths, mass and volumes | 6.1 Estimate and measure length in metres and centimeters, mass in kilograms and grams, and volume in litres and militres
6.2 Compare lengths, masses and volumes
6.3 Add and subtract lengths, mass and volumes
6.4 Solve 1-step word problems | 3. exercise
4. song
5. test
6. pictures | 3. Do the test | test
3. questions | |

18. Contents of subjects

1st Semester

Time Duration	Subject Contents
Beginning of the session – Mid-term	- Count up to 1,000 - Read and write numbers up to 1,000 - Recognize the place values of ones, tens and hundreds - Compare and order numbers up to 1,000 - Complete number patterns - Add within 1,000 - Add without carrying - Add with carrying - Add mentally - Subtract within 1,000 - Subtract without carrying

	- Subtract with carrying - Subtract mentally

Post – Midterm – Final	- Count in steps of 2,3,4,5 and 10
	- Build up the multiplication tables of 2,3,4,5 and 10
	- Multiply numbers within the multiplication tables of 2,3,4,5 and 10
	- Solve 1-step word problems
	- Relate division to multiplication
	
	- Build up the division facts of
	  2,3,4,5 and 10
	- Divide numbers within the multiplication tables of 2,3,4,5 and 10
	- Solve 1- step word problems
	
	- Estimate and measure length in metres and centimeters, mass in kilograms and
	  grams, and volume in litres and militres
	- Compare lengths, masses and volumes
	- Add and subtract lengths, mass and volumes
	- Solve 1-step word problems
	  -

19. Evaluation

Average marks for evaluation

Authentic Assessment: Written / Practical Exam =   60 : 40

(Depend on each Subject)

Evaluation of Learning Objectives

Semester	Learning Objectives (Items)
1	1, 2, 3, 4, 5, 6, 7

20. Details of Evaluation

1st Semester/2014

Pre-test marks: 30 Marks (Authentic Assessment)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
1	- Practical exercise - Test about the numbers 1 – 1,000	30

Mid-term marks: 20 Marks (Written/Practical Exam)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
2	- Test about multiplication	10
3	- Test about division	10

Post-Test marks   30 Marks (Authentic Assessment)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
4	- Practical exercise - Test about multiplication	15
5	- Practical exercise	15

	- Test about division	

Portfolio   :   - Marks

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
………………………..	- ………………………………………………..	………………………

Final marks   :   20 Marks (Written/Practical Exam)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
6, 7	- Test about measurement of length, mass and volume	20

Learning Objectives (2nd Semester)

Indicators of Semester	In accordance with government curriculum
8.Write money in baht and stang up to 1,000 baht	ค. 2.1
9.Add and subtract of money	ค. 2.1
10.Recognize and name unit fraction up to $\frac{1}{2}$	ค. 4.1
11.Write the time	ค. 2.1
12.Measure volume in litres	ค. 2.1
13.Make and read picture graphs with scales.	ค. 5.1
14.Identify straight ,curved lines flat and curved faces	ค. 3.1
15.Identify and name the following shapes in 2D, 3D objects	ค. 3.1

Analyze the course description to be the contents for teaching. (2nd Semester)

Contents (Strand)/ Standards	Indicators	Units of learning / Amounts of Periods	Teaching Materials	How to Evaluate		Maximum marks
				Evaluations	Tools	
ม 2 / ค. 2.1	8.Write money in baht and stang up to 1,000 baht 9.Add and subtract of	**Unit 7: Money (10 periods)** 7.1 Write money in baht and stang up to 1,000 baht 7.2 Change money to get the same value	1. video 2. textbook 3. exercise 4. song 5. test 6. pictures	1. Do exercise 2. Answering 3. Do the test	1. worksheet 2. practical test 3. questions	30

	money	7.3 Add and subtract money 7.4 Solve 1-step word problems				
ม 4 / ค. 4.1	10.Recognize and name unit fraction up to $\frac{1}{2}$	**Unit 8: Fractions (5 periods)** 8.1 Recognize and name unit fractions up to $\frac{1}{2}$ 8.2 Recognize and name a fraction of whole Compare and order unit fraction and like fractions .	1. video 2. textbook 3. exercise 4. song 6. pictures	1. Do exercise 2. Answering 3. Do the test	examination	10
ม 2 / ค. 2.1	11.Write the time	**Unit 9: Time (5 periods)** 9.1 Read time 9.2 Write time 9.3 Use a.m and p.m 9.4 Write hour as hand minutes as min before and after	1. video 2. textbook 3. exercise 4. song 5. pictures 6. clock	1. Do exercise 2. Answering 3. Do the test	examination	10
ม 2 / ค. 2.1	12.Measure volume in litres	**Unit 10 Volume (5 periods)** 10.1 Estimate and measure volume in litres 10.2. Compare volumes 10.3. Add and subtract volumes 10.4 Solve 1- step word problems	1. video 2. textbook 3. exercise 4. song 5. pictures 6. things	1. Do exercise 2. Answering 3. Do the test	1. worksheet 2. practical test 3. questions	15

ม 5 / ค. 5.1.	13.Make and read picture graphs with scales.	**Unit 11 Picture Graphs (5 periods)** 11.1 Make and read simple picture graphs 11.2 Make and read picture graphs with scales 11.3 Solve problems using the information presented in picture graphs	1. video 2. textbook 3. exercise 4. song 5. picture graphs	1. Do exercise 2. Answering 3. Do the test	1. worksheet 2. practical test 3. questions	15
ม 3 / ค. 3.1	14.Identify straight ,curved lines flat and curved faces	**Unit 12 Lines, curves and surfaces (5 periods)** 12.1 Identify straight and curved lines 12.2 Form figures with straight and curved lines 12.3 Draw a straight line of given length 12.4 Identify flat and curved faces of solids	1. video 2. textbook 3. exercise 4. song 5. pictures	1. Do exercise 2. Answering 3. Do the test	examination	10
ม 3 / ค. 3.1	15. .Identify and	**Unit 13 Shapes and pattern**	1. video 2. textbook	1. Do exercise 2. Answering	examination	10

name the following shapes in 2D, 3D objects	(5 periods) 13.1 Identify and name a semicircle and a quarter circle 13.2 Identify shapes that make up a given figure 13.3 Complete patterns according to shape , size and direction	3. exercise 4. song 5. shapes 6. things	3. Do the test		

Contents of subjects

2nd Semester

Time Duration	Subject Contents
Beginning of the session – Mid-term	- Write money in baht and stang up to 1,000 baht - Change money to get the same value - Add and subtract money - Solve 1-step word problems - Recognize and name unit fractions up to $\frac{1}{2}$ - Recognize and name a fraction of whole Compare and order unit fraction and like fractions

	- Read time
	- Write time
	- Use a.m and p.m
	- Write hour as hand minutes as min before and after
Post – Midterm – Final	- Estimate and measure volume in litres
	-. Compare volumes
	-. Add and subtract volumes
	- Solve 1- step word problems
	- Make and read simple picture graphs
	- Make and read picture graphs with scales
	- Solve problems using the information presented in picture graphs
	- Identify straight and curved lines
	- Form figures with straight and curved lines
	- Draw a straight line of given length
	- Identify flat and curved faces of solids
	- Identify and name a semicircle and a quarter circle
	- Identify shapes that make up a given figure-
	- Complete patterns according to shape , size and direction

Evaluation

Average marks for evaluation

Authentic Assessment: Written / Practical Exam = 60 : 40

(Depend on each Subject)

Evaluation of Learning Objectives

Semester	Learning Objectives (Items)
2	8, 9, 10, 11, 12, 13, 14, 15

Details of Evaluation

Pre-test marks: 30 Marks (Authentic Assessment)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
8	- Practical exercise - Test about write money in baht and stang	15
9	- Practical exercise - Test about add and subtract of money	15

Mid-term marks :   20 Marks (Written/Practical Exam)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
10	- Test about fractions	10
11	- Test about the time	10

Post-Test marks   30 Marks (Authentic Assessment)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
12	- Practical exercise - Test about volume	15
13	- Practical exercise - Test about picture graphs	15

Portfolio   :   - Marks

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
……………………..	- ……………………………………………..	…………………

Final marks   :   20 Marks (Written/Practical Exam)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
14.	- Test about line, curves and surfaces	10
15	- Test about shapes 2D and 3D objects	10