K to 12 BASIC EDUCATION CURRICULUM

GRADE 4

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner…	The learner…	The learner…			
Grade 4- FIRST QUARTER						
Numbers and Number Sense	1. demonstrates understanding of whole numbers up to 100,000. 2. demonstrates understanding of multiplication and division of whole numbers including money.	1. is able to recognize and represent whole numbers up to 100,000 in various forms and contexts. 2. is able to apply multiplication and division of whole numbers including money in mathematical problems and real-life situations.	1. visualizes numbers up to 100 000 with emphasis on numbers 10 001 – 100 000.	**M4NS-Ia-1.4**	1. BEAM LG Gr.3 Module 1.1 – Whole Numbers 2. Lesson Guide in Elem. Math Grade 3. 2010. pp. 11-14 3. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 11-14	
			2. gives the place value and value of a digit in numbers up to 100 000.	**M4NS-Ia-10.4**	1. TEEP Grade 4. 2005. pp. 4-7 2. Lesson Guide in Elem. Math Grade 3. 2010. pp. 15-18 3. Grade School Mathematics Grade 4. 2003. pp. 2-4* 4. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 15-18 5. NFE Accreditation and Equivalency Learning Material. Addition and Subtraction in Daily Life. 2001. pp. 5-9	
			3. reads and writes numbers up to hundred thousand in symbols and in words.	**M4NS-Ia-9.4**	1. BEAM LG Gr.3 Module 1.1 – Whole Numbers 2. TEEP Grade 3. 2005. pp. 19-23, 24-28 3. Lesson Guide in Elem.	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner…	The learner…	The learner…			
					Math Grade 3. 2010. pp. 18-23;23-28 4. Mathematics for Everyday Use Grade 3. 1997. pp. 4-7* 5. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 18-28	
			4. rounds numbers to the nearest thousand and ten thousand.	**M4NS-Ib-5.2**	1. BEAM LG Gr.3 Module 1.1 – Whole Numbers 2. DLP Gr. 4 Module 6 3. TEEP Grade 3. 2005. pp. 41-44 4. Lesson Guide in Elem. Math Grade 3. 2010. pp. 37-41;41-44 5. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 41-44	
			5. compares numbers up to 100 000 using relation symbols.	**M4NS-Ib-12.4**	1. TEEP Grade 3. 2005. pp. 28-33 2. Lesson Guide in Elem. Math Grade 3. 2010. pp. 28-33 3. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 28-33	
			6. orders numbers up to 100 000 in increasing or decreasing order.	**M4NS-Ib-13.4**		
			7. multiplies numbers up to 3-digit numbers by up to 2-digit numbers without or with	**M4NS-Ic-43.7**	1. BEAM LG Gr.3 Module 1-Multiplication 2. DLP Gr. 3 Module 20,	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
			regrouping.		22, Gr. 5 Module 6	
					3. TEEP Grade 3. 2005. pp. 172-177, 177-181	
					4. Lesson Guide in Elem. Math Grade 3. 2010. pp. 175-180;180-184	
					5. Proded Math. 22A, B & C: Multiplying Whole Numbers Without Regrouping	
					6. Proded Math. 24A, B & C: Multiplying Whole Numbers With Regrouping	
					7. Grade School Mathematics Grade 4. 2003. pp. 62-63	
					8. Mathematics for Everyday Use Gr. 3. 1997. p. 100, 107, 113*	
					9. Mathematics for Everyday Life Grade 4. 2000. pp. 62-63, 70*	
					10. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 175-184	
					11. Proded Math. III-A, III-B & III-C: Multiplying Whole Numbers Without Regrouping	
					12. Proded Math. III-A, III-B & III-C: Multiplying Whole	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Numbers With Regrouping 13. NFE Accreditation and Equivalency Learning Material. Pagpaparami at Paghahati. 2001. pp. 4-16, 41-51 14. NFE Accreditation and Equivalency Learning Material. Multiplication and Division in Daily Life. 2001. pp. 4-13	
			8. estimates the products of 3- to 4-digit numbers by 2- to 3-digit numbers with reasonable results.	**M4NS-Ic-44.2**	1. BEAM LG Gr.3 Module 1-Multiplication 2. DLP Gr. 3 Module 21 3. TEEP Grade 3. 2005. pp. 205-208 4. TEEP Grade 5. 2005. pp. 16-20 5. Lesson Guide in Elem. Math Grade 3. 2010. pp. 204-211 6. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 204-211	
			9. multiplies mentally 2-digit by 1-to 2-digit numbers with products up to 200 and explains the strategies used.	**M4NS-Id-42.3**	1. BEAM LG Gr.3 Module 1-Multiplication, Gr. 4 – Module 4 – Multiplication 2. DLP Gr. 4 Module 31 3. TEEP Grade 3. 2005. pp. 209-213 4. Lesson Guide in Elem.	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Math Grade 3. 2010. pp. 212-216 5. Grade School Mathematics Grade 4. 2003. pp. 70-71* 6. Mathematics for Everyday Life Grade 4. 2000. pp. 64-65* 7. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 212-216 8. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 96-98	
			10. solves routine and non-routine problems involving multiplication of whole numbers including money using appropriate problem solving strategies and tools.	**M4NS-Id-45.4**	1. BEAM LG Gr.3 Module 1-Multiplication & Module on Problem Solving, Gr. 4 Module 4 – Multiplication 2. DLP Gr. 4 Module 34 3. TEEP Grade 4. 2005. pp. 214-217 4. Lesson Guide in Elem. Math Grade 3. 2010. pp. 216-219 5. Grade School Mathematics Grade 4. 2003. pp. 72-73* 6. Mathematics for Everyday Life Grade 4. 2000. pp. 66-71* 7. Lesson Guide in Elementary Mathematics Grade 3.	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					2012. pp. 216-219 8. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 111-113	
			11. solves multi-step routine and non-routine problems involving multiplication and addition or subtraction using appropriate problem solving strategies and tools.	**M4NS-Ie-45.5**	1. BEAM LG Gr.4 Module 4-Multiplication 2. DLP Gr. 4 Module 35 3. Lesson Guide in Elem. Math Grade 3. 2010. pp. 219-223;254-258 4. Grade School Mathematics Grade 4. 2003. pp. 75-76* 5. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 219-223 6. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 113-116	
			12. creates problems(with reasonable answers) involving multiplication or with addition or subtraction of whole numbers including money.	**M4NS-Ie-46.3**		
			13. divides 3- to 4-digit numbers by 1-to 2-digit numbers without and with remainder.	**M4NS-If-54.3**	1. BEAM LG Gr.3 Module on Division 2. DLP Gr. 3 Module 26, 27, 30, 33, 34, Gr. 4 Module 41, Gr. 5 Module 7 3. TEEP Grade 3. 2005. pp. 246-251, 252-256 4. Lesson Guide in Elem.	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Math Grade 3. 2010. pp. 229-233 5. Grade School Mathematics Grade 4. 2003. pp. 82-89* 6. Mathematics for Everyday Life Grade 4. 2000. pp. 72-79, 80-85, 93-94 * 7. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 248-258 8. Proded Math. III-A, III-B & III-C: Division of Whole Numbers (Without Remainder) 9. Proded Math. III-A, III-B & III-C: Division of Whole Numbers (With Remainder) 10. Proded Math. 27-A, 27-B & 27-C: Finding the Quotients Without Remainders 11. Proded Math. 29-A, 29-B & 29-C: Finding the Quotients With Remainders 12. NFE Accreditation and Equivalency Learning Material. Pagpaparami at Paghahati. 2001. pp. 17-41, 51-60 13. NFE Accreditation and Equivalency Learning	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Material. Multiplication and Division in Daily Life. 2001. pp. 18-28	
			14. divides 3- to 4-digit numbers by tens or hundreds or by 1 000 without and with remainder.	**M4NS-If-54.4**	1. MISOSA Module Gr. 4 – Division of Whole Numbers by 10, 100 and 1000 2. TEEP Grade 3. 2005. pp. 268-274 3. Lesson Guide in Elem. Math Grade 3. 2010. pp. 248-254 4. Mathematics for Everyday Life Grade 4. 2000. pp. 86-87* 5. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 270-276 6. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 122-125	
			15. estimates the quotient of 3- to 4-digit dividends by 1- to 2-digit divisors with reasonable results.	**M4NS-Ig-55.2**	MISOSA Module Gr.4 – Estimating Quotients	
			16. divides mentally 2- to 3-digit numbers by 1-digit numbers without remainder using appropriate strategies.	**M4NS-Ig-52.3**	1. BEAM LG Gr.3 Module on Division, Gr. 4 Module 5 – Division 2. Lesson Guide in Elem. Math Grade 3. 2010. pp. 276-280 3. Lesson Guide in Elem. Math Grade 4. 2010. pp. 131-133	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					4. Proded Math. 26A, B & C: Division of Whole Numbers Without Remainder 5. Proded Math. 28B: Division of Whole Numbers With Remainders 6. Grade School Mathematics Grade 4. 2003. pp. 92-93* 7. Mathematics for Everyday Life Grade 4. 2000. pp. 88-89* 8. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 276-280 9. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 131-133	
			17. solves routine and non-routine problems involving division of 3- to 4-digit numbers by 1- to 2-digit numbers including money using appropriate problem solving strategies and tools.	**M4NS-Ih-56.3**	1. BEAM LG Gr.3 Module on Division, Gr. 4 Module 5 – Division 2. MISOSA Module Gr. 4 – One-Step Word Problems involving Division 3. Lesson Guide in Elem. Math Grade 3. 2010. pp. 281-285 4. Lesson Guide in Elem. Math Grade 4. 2010. pp. 137-140 5. Grade School	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Mathematics Grade 4. 2003. pp. 94-95* 6. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 281-285 7. NFE Accreditation and Equivalency Learning Material. Multiplication and Division in Daily Life. 2001. pp. 28-35	
			18. solves multi-step routine and non-routine problems involving division and any of the other operations of whole numbers including money using appropriate problem solving strategies and tools.	M4NS-Ih-56.4	1. BEAM LG Gr. 4 Module 5 – Division 2. DLP Gr. 6 Module 3 3. MISOSA Module Gr. 4 – Two- to Three-Step Word Problems involving Division 4. TEEP Grade 3. 2005. pp. 287-291 5. TEEP Grade 4. 2005. pp. 139-141, 141-144 6. Lesson Guide in Elem. Math Grade 3. 2010. pp. 285-289 7. Lesson Guide in Elem. Math Grade 4. 2010. pp. 140-143;143-145 8. Grade School Mathematics Grade 4. 2003. pp. 96-97* 9. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp.285-293 10. Lesson Guide in	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner…	The learner…	The learner…			
					Elementary Mathematics Grade 4. 2012. pp.143-145	
			19. creates problems involving division without or with any other operations of whole numbers including money, with reasonable answers	**M4NS-Ii-57.3**		
			20. represents and explains Multiplication, Division, Addition, Subtraction (MDAS) correctly.	**M4NS-Ii-61.1**		
			21. performs a series of two or more operations.	**M4NS-Ij-62.1**		
Grade 4- SECOND QUARTER						
Numbers and Number Sense	1. demonstrates understanding of factors and multiples and addition and subtraction of fractions. 2. demonstrates understanding of improper fractions and mixed numbers	1. is able to apply knowledge of factors and multiples, and addition and subtraction of fractions in mathematical problems and real-life situations. 2. is able to recognize and represent improper fractions and mixed numbers in various	22. identifies factors of a given number up to 100.	**M4NS-IIa-64**	1. Proded Math. 20A, B & C: Naming Factors	
			23. identifies the multiples of a given number up to 100.	**M4NS-IIa-65**	1. TEEP Grade 5. 2005. pp. 37-40 2. Lesson Guide in Elem. Math Grade 5. 2010. pp. 41-44	
			24. differentiates prime from composite numbers.	**M4NS-IIb-66**	1. BEAM LG Gr.5 Module 1 – Subsets of Whole Numbers, Gr. 6 Number Theory 2. Lesson Guide in Elem. Math Gr. 5 p. 30 3. MISOSA Gr. 5 Module – Prime and Composite Numbers 4. TEEP Grade 5. 2005. pp. 31-34 5. Lesson Guide in Elem. Math Grade 5. 2010.	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
		forms and contexts.			pp. 37-41 6. Grade School Mathematics Grade 4. 2003. pp. 54-55* 7. Mathematics for Everyday Life Gr. 4. 2000. pp. 50-51* 8. Lesson Guide in Elementary Mathematics Grade 5. 2012. pp. 30-33	
			25. writes a given number as a product of its prime factors.	**M4NS-IIb-67**	1. BEAM LG Gr.5 Module 1 – Subsets of Whole Numbers 2. DLP Gr. 5 Module 10 3. MISOSA Gr. 5 Module – Prime Factors of a Number 4. Lesson Guide in Elementary Mathematics Grade 5. 2012. pp. 37-41	
			26. finds the common factors and the greatest common factor (GCF) of two numbers using the following methods: listing, prime factorization, and continuous division.	**M4NS-IIc-68.1**	1. BEAM LG Gr.5 Module 1 – Subsets of Whole Numbers 2. Lesson Guide in Elem. Math Gr. 5 p.33 3. TEEP Grade 3. 2005. pp. 315-319 4. TEEP Grade 5. 2005. pp. 27-31 5. Lesson Guide in Elem. Math Grade 3. 2010. pp. 317-321 6. Lesson Guide in Elem. Math Grade 5. 2010.	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner…	The learner…	The learner…			
					pp. 33-37 7. Mathematics for Everyone Grade 5. 2000. pp. 76-77* 8. Lesson Guide in Elementary Mathematics Grade 5. 2012. pp. 33-37 9. Proded Math. III-A, III-B & III-C: Finding the Greatest Common Factor 10. Proded Math. III-A, 18-A & 18-C: Naming Factors 11. Proded Math. 18-B, III-B & III-C: Naming Factor Pairs	
			27. finds the common multiples and least common multiple (LCM) of two numbers using the following methods: listing, prime factorization, and continuous division.	**M4NS-IIc-69.1**	1. Lesson Guide in Elem. Math Gr. 5 p.44 2. MISOSA Gr. 5 Module – Least Common Multiple 3. TEEP Grade 5. 2005. pp. 41-44 4. Lesson Guide in Elem. Math Grade 5. 2010. pp. 44-48 5. Mathematics for Everyone Grade 5. 2000. pp. 80-81* 6. Lesson Guide in Elementary Mathematics Grade 5. 2012. pp. 44-48	
			28. solves real-life problems involving GCF and LCM of 2	**M4NS-IId-70.1**		

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner…	The learner…	The learner…			
			given numbers.			
			29. creates problems with reasonable answers involving GCF and LCM of 2 given numbers.	**M4NS-IId-71.1**		
			30. identifies proper fractions, improper fractions, and mixed numbers.	**M4NS-IIe-79.2**	1. BEAM LG Gr.4 Module 8 – Fractions 2. DLP Gr. 4 Module 57 3. Lesson Guide in Elem. Math Gr. 4 p.192 4. TEEP Grade 4. 2005. pp. 186-190 5. Lesson Guide in Elem. Math Grade 4. 2010. pp. 192-197 6. Grade School Mathematics Grade 4. 2003. pp. 102-103* 7. Mathematics for Everyday Life Grade 4. 2000. pp. 112-113* 8. Lesson Guide in Elementary Mathematics Gr. 4. 2012. pp. 192-197	
			31. changes improper fraction to mixed numbers and vice versa.	**M4NS-IIe-80**	1. BEAM LG Gr.4 Module 8 – Fractions 2. DLP Gr. 4 Module 61, Gr. 6 Module 26 3. Lesson Guide in Elem. Math Gr. 4 p.209, Gr. 6 p. 170 4. MISOSA Module Gr. 4 – Improper to Mixed Numbers 5. TEEP Grade 4. 2005.	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					pp. 207-211 6. Lesson Guide in Elem. Math Grade 4. 2010. pp. 209-213 7. Grade School Mathematics Grade 4. 2003. pp. 114-117* 8. Mathematics for Everyday Life Grade 4. 2000. pp. 98-99, 106-107, 112-113* 9. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 209-213	
			32. changes fractions to lowest forms.	**M4NS-IIe-81**	1. BEAM LG Gr.3 Module 2 – Fractions; Gr. 6 Module 7 2. Lesson Guide in Elem. Math Gr. 6 p.166 3. TEEP Grade 5. 2005. pp. 62-67 4. Lesson Guide in Elem. Math Grade 3. 2010. pp. 321-326 5. Lesson Guide in Elem. Math Grade 5. 2010. pp. 68-73 6. Proded Math. 32A, B & C: Reducing Fractions to Lowest Terms 7. Grade School Mathematics Grade 4. 2003. pp. 110-111* 8. Mathematics for Everyday Life Grade 4.	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					2000. pp. 100-101* 9. Lesson Guide in Elementary Mathematics Grade 3. 2012. pp. 321-326 10. Lesson Guide in Elementary Mathematics Grade 6. 2012. pp. 166-170***** 11. Proded Math. III-A, III-B & III-C: Reducing Fractions to Lowest Terms	
			33. visualizes addition and subtraction of similar fractions.	**M4NS-IIf-82.1**	1. BEAM LG Gr.4 Module 9 – Addition and Subtraction of Fractions 2. Lesson Guide in Elem. Math Gr. 4 p. 209, Gr. 5 p.124 3. Lesson Guide in Elem. Math Grade 4. 2010. pp. 217—223;230-235 4. Grade School Mathematics Grade 4. 2003. p. 124; 128* 5. Mathematics for Everyday Life Grade 4. 2000. p. 116, 122* 6. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 217-223, 230-235 7. Lesson Guide in Elementary Mathematics Grade 5.	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					2012. pp.124-128 8. BALS Video – Pagdaragdag at Pagbabawas ng Desimal	
			34. visualizes subtraction of a fraction from a whole number.	**M4NS-IIf-82.2**	1. BEAM LG Gr.4 Module 9 – Addition and Subtraction of Fractions 2. Lesson Guide in Elem. Math Grade 4. 2010. pp. 235-238 3. Grade School Mathematics Grade 4. 2003. pp. 130* 4. Mathematics for Everyday Life Grade 4. 2000. pp. 126-127* 5. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 235-238	
			35. visualizes addition and subtraction of dissimilar fractions.	**M4NS-IIg-82.3**	1. BEAM LG Gr.5 Module 3 – Addition of Fractions 2. Lesson Guide in Elem. Math Gr. 5 p. 83, 124 3. MISOSA Gr. 5 Module – Visualization of Dissimilar Fractions 4. TEEP Grade 5. 2005. pp. 76-81, 134-137 5. Lesson Guide in Elem. Math Grade 5. 2010. pp. 79-83;83-90;124-128	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					6. Mathematics for Everyday Life Grade 4. 2000. p. 128, 130* 7. Lesson Guide in Elementary Mathematics Grade 5. 2012. pp. 83-90	
			36. performs addition and subtraction of similar and dissimilar fractions.	**M4NS-IIg-83**	1. BEAM LG Gr.4 Module 9 – Addition and Subtraction of Fractions 2. DLP Gr. 4 Module 63, 64, 65, 66, Gr. 5 Module 14, 15, 18, 20, 21 3. Lesson Guide in Elem. Math Gr. 4 217, 235, Gr. 5 p. 79, 90, 94, 128 –136 4. MISOSA Module Gr.4 – Addition of Similar Fractions, Fractions and Whole Numbers, Subtraction of Similar Fractions 5. MISOSA Module Gr.5 – Addition of Dissimilar Fractions 6. MISOSA Module Gr.6 – Subtraction of Dissimilar Fractions in Simple Forms 7. TEEP Grade 4. 2005. pp. 215-220, 227-232 8. TEEP Grade 5. 2005. pp. 81-84, 138-141 9. Lesson Guide in Elem.	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Math Grade 5. 2010. pp. 90-94;94-98 10. Proded Math. 34A: Adding Dissimilar Fractions 11. Mathematics for Everyday Life Grade 4. 2000. pp. 116-119, 123-125, 128-131* 12. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 217-223, 230-235 13. Proded Math. III-A: Adding and Subtracting Similar Fractions 14. Proded Math. III-B: Add and Subtract (Fractions and Wholes) 15. Proded Math. III-C: Add and Subtract (Mixed Numbers) 16. Proded Math. 34-A, 34-B & 34-C: Adding Dissimilar Fractions 17. NFE Accreditation and Equivalency Learning Material. Addition and Subtraction of Fractions. 2001. pp. 6-23, 26-31 18. NFE Accreditation and Equivalency Learning Material.	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Pagdaragdag at Pagbabawas ng mga Praksiyon. 2001. pp. 5-26, 31-37	
			37. solves routine and non-routine problems involving addition and/or subtraction of fractions using appropriate problem solving strategies and tools.	**M4NS-IIh-87.1**	1. BEAM LG Gr.4 Module 9 – Addition and Subtraction of Fractions, Grade 5 Module 4 2. DLP Gr. 4 Module 67, 68, Gr. 5 Module 17 3. Lesson Guide in Elem. Math Gr. 4 p. 242, 246 4. TEEP Grade 4. 2005. pp. 239-242 5. TEEP Grade 5. 2005. pp. 106-11 6. Lesson Guide in Elem. Math Grade 4. 2010. pp. 242-249 7. Lesson Guide in Elem. Math Grade 5. 2010. pp. 119-124 8. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 242-249 9. Lesson Guide in Elementary Mathematics Grade 5. 2012. pp. 119-124, 172-176 10. NFE Accreditation and Equivalency Learning Material. Addition and	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Subtraction of Fraction. 2001. pp. 24-25, 31-40 11. NFE Accreditation and Equivalency Learning Material. Pagdaragdag at Pagbabawas ng mga Praksiyon. 2001. pp.27-30, 37-44 12. NFE Accreditation and Equivalency Learning Material. Learning About Fractions. 1998. pp. 15-23 13. NFE Accreditation and Equivalency Learning Material. Addition and Subtraction of a Fraction. 1998. pp. 4-17	
			38. creates problems(with reasonable answers) involving addition and/or subtraction of fractions.	**M4NS-IIh-88.1**		
			39. visualizes decimal numbers using models like blocks, grids, number lines and money to show the relationship to fractions.	**M4NS-IIi-99**	1. BEAM LG Gr.4 Module 7 – Decimals 2. DLP Gr. 6 Module 4 3. Grade School Mathematics Grade 4. 2003. p. 148; 152* 4. Mathematics for Everyday Life Grade 4. 2000. p. 144, 146, 148*	
			40. renames decimal numbers to fractions, and fractions whose denominators are	**M4NS-IIi-100**	1. BEAM LG Gr.4 Module 7 – Decimals; Gr. 4 Module 8 – Fractions	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
			factors of 10 and 100 to decimals.		2. DLP Gr. 4 Module 44, Gr. 6 Module 23 3. Lesson Guide in Elem. Math Gr. 5 p.231, Gr. 6 p. 159 4. MISOSA Module Gr. 4 – Common Fractions as Decimals 5. MISOSA Module Gr.5 – Renaming Fractions in Decimal Form 6. Lesson Guide in Elem. Math Grade 4. 2010. pp. 148-153 7. Lesson Guide in Elem. Math Grade 5. 2010. pp. 231-237 8. Mathematics for Everyday Life Grade 4. 2000. p. 147* 9. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 148-153 10. Lesson Guide in Elementary Mathematics Grade 5. 2012. pp. 231-237	
			41. gives the place value and the value of a digit of a given decimal number through hundredths.	**M4NS-IIi-101.1**	1. BEAM LG Gr.4 Module 7 – Decimals 2. MISOSA Module Gr. 4 – Place Value of Decimals 3. Lesson Guide in Elem. Math Grade 4. 2010. pp. 153-156 4. Lesson Guide in Elem.	Place Value Chart with Decimal Pockets

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Math Grade 5. 2010. pp. 237-241 5. Mathematics for Everyone Grade 5. 2000. pp. 132-133* 6. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 153-156 7. Lesson Guide in Elementary Mathematics Grade 5. 2012. pp. 237-241 8. NFE Accreditation and Equivalency Learning Material. Pagdaragdag at Pagbabawas ng mga Praksiyon. 2001. pp. 4-10	
			42. reads and writes decimal numbers through hundredths.	**M4NS-IIj-102.1**	1. BEAM LG Gr.4 Module 7 – Decimals 2. DLP Gr. 4 Module 45 3. Lesson Guide in Elem. Math Grade 4. 2010. pp. 146-148 4. Grade School Mathematics Grade 4. 2003. p. 153* 5. Mathematics for Everyday Life Grade 4. 2000. p. 146* 6. Mathematics for Everyone Grade 5. 2000. p. 133* 7. Lesson Guide in Elementary	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Mathematics Grade 4. 2012. pp. 146-148	
			43. rounds decimal numbers to the nearest whole number and tenth.	**M4NS-IIj-103.1**	1. BEAM LG Gr.4 Module 7 – Decimals 2. TEEP Grade 5. 2005. pp. 217-219 3. Lesson Guide in Elem. Math Grade 4. 2010. pp. 159-162 4. Lesson Guide in Elem. Math Grade 5. 2010. pp. 247-251 5. Mathematics for Everyone Grade 5. 2000. pp. 134-135* 6. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 159-162 7. Lesson Guide in Elementary Mathematics Grade 5. 2012. pp.247-251	
			44. compares and arranges decimal numbers.	**M4NS-IIj-104.1**	Mathematics for Everyday Life Grade 4. 2000. p. 175*	
Grade 4- THIRD QUARTER						
Geometry	demonstrates understanding of the concepts of parallel and perpendicular lines, angles, triangles, and quadrilaterals.	is able to construct and describe parallel and perpendicular lines, angles, triangles, and quadrilaterals in designs, drawings and models.	45. describes and illustrates parallel, intersecting, and perpendicular lines.	**M4GE-IIIa-12.2**	1. Lesson Guide in Elem. Math Grade 3. 2010. pp. 330-333 2. Grade School Mathematics Grade 4. 2003. p. 175* 3. Mathematics for Everyday Life Grade 4. 2000. p. 164* 4. NFE Accreditation and	Protractor, blackboard Compass, blackboard Protractor (For student)

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner…	The learner…	The learner…			
					Equivalency Learning Material. Geometric Shapes. 2001. pp. 4-6 5. NFE Accreditation and Equivalency Learning Material. Mga Linya at Anggulo. 2001. pp. 5-12 6. BALS Video – Lines and Angles	
			46. draws perpendicular and parallel lines using a ruler and a set square.	**M4GE-IIIa-12.3**		1. Blackboard Triangles Set (30° x 60° and 45° x 45°) 2. Compass, blackboard
			47. describes and illustrates different angles (right, acute, and obtuse) using models.	**M4GE-IIIb-14**	1. BEAM LG Gr.4 Module 11 – Angles and Plane Figures 2. DLP Gr. 4 Module 76, 77, 78, 79 3. Lesson Guide in Elem. Math Gr. 4 p.287, 290, 293 4. MISOSA Module Gr. 4 – Congruent Angles 5. TEEP Grade 4. 2005. pp. 292-298 6. Lesson Guide in Elem. Math Grade 4. 2010. pp. 290-293 7. Grade School Mathematics Grade 4. 2003. pp.183-185* 8. Mathematics for	Linear Pair/Angle Demonstrator

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Everyday Life Grade 4. 2000. pp. 170-171* 9. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 290-295 10. NFE Accreditation and Equivalency Learning Material. Geometric Shapes. 2001. pp. 7-11 11. NFE Accreditation and Equivalency Learning Material. Mga Linya at Anggulo. 2001. pp. 13-22 12. BALS Video – Shapes and Figures Around Us 13. BALS Video – Lines and Angles	
			48. describes the attributes/properties of triangles and quadrilaterals using concrete objects or models.	**M4GE-IIIb-15**	1. BEAM LG Gr.4 Module 11 – Angles and Plane Figures 2. DLP Gr. 4 Module 81	
			49. identifies and describes triangles according to sides and angles.	**M4GE-IIIc-16**	1. BEAM LG Gr.4 Module 11 – Angles and Plane Figures 2. DLP Gr. 3 Module 41, Gr. 4 Module 73 3. Lesson Guide in Elem. Math Gr. 4 p.298 4. TEEP Grade 4. 2005. pp. 274-277 5. Lesson Guide in Elem.	Blackboard Triangles Set (30° x 60° and 45° x 45°)

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Math Grade 4. 2010. pp. 298-302 6. Grade School Mathematics Grade 4. 2003. pp. 188-189* 7. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 298-302	
			50. identifies and describes the different kinds of quadrilaterals: square, rectangle, parallelogram, trapezoid, and rhombus.	**M4GE-IIIc-17**	1. BEAM LG Gr.4 Module 11 – Angles and Plane Figures 2. TEEP Grade 4. 2005. pp. 277-282 3. Lesson Guide in Elem. Math Grade 4. 2010. pp. 276-280 4. Grade School Mathematics Grade 4. 2003. pp. 190-191* 5. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 276-280 6. NFE Accreditation and Equivalency Learning Material. Geometric Shapes. 2001. pp. 13-14	Models of 7-sided to 12 sided regular polygons
			51. relates triangles to quadrilaterals	**M4GE-IIId-18.1**		Geostrips
			52. relates one quadrilateral to another quadrilateral (e.g. square to rhombus).	**M4GE-IIId-18.2**		

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
Patterns and Algebra	demonstrates understanding of concepts of continuous and repeating patterns and number sentences.	is able to identify the missing element in a pattern and number sentence.	53. determines the <u>missing term/s</u> in a sequence of numbers (e.g. odd numbers, even numbers, multiples of a number, factors of a number, etc.) e.g. 3,6,9,__ 4,8,12,16,__ (e.g. odd numbers, even numbers, multiples of a number, factors of a number, etc.) 1●△3■○5▲□7 ____	**M4AL-IIIe-5**		
			54. finds the missing number in an equation involving properties of operations. (e.g. (4+__) + 8 = 4 + (5 + __)	**M4AL-IIIe-13**		
Measurement	demonstrates understanding of the concept of time, perimeter, area, and volume.	is able to apply the concepts of time, perimeter, area, and volume to mathematical problems and real-life situations.	55. finds the elapsed time in minutes and seconds.	**M4ME-IIIf-11**	1. NFE Accreditation and Equivalency Learning Material. Ito'y Tungkol Sa Oras. 2001. pp. 5-19 2. NFE Accreditation and Equivalency Learning Material. It's About Time. 2001. pp. 2-16	
			56. estimates the duration of time in minutes.	**M4ME-IIIf-12**		
			57. solves problems involving elapsed time.	**M4ME-IIIg-13**		
			58. visualizes the perimeter of any given plane figure in different situations.	**M4ME-IIIg-48**		

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
			59. measures the perimeter of any given figure using appropriate tools.	**M4ME-IIIh-49**	1. DLP Gr. 4 Module 84 2. Grade School Mathematics Grade 4. 2003. pp. 206-207* 3. NFE Accreditation and Equivalency Learning Material. Perimeters and Areas. 1998. pp. 5-10	1. Meterstick, plastic 2. Ruler, 12" or 30cm 3. Tape Measure, 1.5 meter
			60. derives the formula for perimeter of any given figure.	**M4ME-IIIh-50**	BEAM LG Gr.4 Module 18 – Perimeter	
			61. finds the perimeter of triangles, squares, rectangles, parallelograms, and trapezoids.	**M4ME-IIIi-51**	1. BEAM LG Gr.4 Module 18 – Perimeter 2. DLP Gr. 4 Module 82, 83, 86 3. Lesson Guide in Elem. Math Gr. 4 p.302, 305 4. TEEP Grade 4. 2005. pp. 300-303 5. Lesson Guide in Elem. Math Grade 4. 2010. pp. 302-305 6. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 302-309 7. NFE Accreditation and Equivalency Learning Material. Measurement, Perimeter and Circumference. 2001. pp. 10-19 8. NFE Accreditation and Equivalency Learning Material. Perimeters and Areas. 1998. pp.5-	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					10 9. NFE Accreditation and Equivalency Learning Material. Perimeter and Areas. 1999. pp. 5-9 10. BALS Video – Lesson 2: Finding the Perimeter	
			62. solves routine and non-routine problems in real-life situations involving perimeter of squares and rectangles, triangles, parallelograms, and trapezoids.	**M4ME-IIIi-52**	1. BEAM LG Gr.4 Module 18 – Perimeter 2. Lesson Guide in Elem. Math Gr. 4 p.309 3. TEEP Grade 4. 2005. pp. 307-309 4. Lesson Guide in Elem. Math Grade 4. 2010. pp. 309-311 5. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 309-311 6. NFE Accreditation and Equivalency Learning Material. Measurement, Perimeter and Circumference. 2001. pp. 18-19	
			63. differentiates perimeter from area.	**M4ME-IIIj-53**		1. Basic 3-Dimensional Models 2. Circle Area Demonstrator 3. Geoboard, 11 x 11

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
						4. Models of 7-sided to 12 sided regular polygons
			64. converts sq. cm to sq. m and vice versa.	**M4ME-IIIj-54**		
Grade 4- FOURTH QUARTER						
			65. finds the area of irregular figures made up of squares and rectangles using sq. cm and sq. m.	**M4ME-IVa-55**	Grade School Mathematics Grade 4. 2003. pp. 210-211*	
			66. estimates the area of irregular plane figures made up of squares and rectangles.	**M4ME-IVa-56**		
			67. derives the formulas for the area of triangles, parallelograms, and trapezoids.	**M4ME-IVb-57**	1. BEAM LG Gr.4 Module 13 – Area 2. DLP Gr. 4 Module 85 3. Lesson Guide in Elem. Math Gr. 4 p.315, 317, 321, 325 4. TEEP Grade 4. 2005. pp. 318-321 5. Lesson Guide in Elem. Math Grade 4. 2010. pp. 315-317;321-324 6. Mathematics for Everyone Grade 5. 2000. p. 202* 7. Lesson Guide in Elementary Mathematics Grade 4. 2012. p. 315-328	
			68. finds the area of triangles, parallelograms and trapezoids using sq. cm and sq. m.	**M4ME-IVb-58**	1. BEAM LG Gr.4 Module 13 – Area, Gr. 5 Module 14 – Area 2. DLP Gr. 4 Module 48,	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Gr. 5 Module 47, 50	
					3. Lesson Guide in Elem. Math Gr. 5 p.372, 377, Gr. 6 p. 373, 378	
					4. MISOSA Module Gr.5 – Area of a Trapezoid	
					5. TEEP Grade 4. 2005. pp. 314-317	
					6. TEEP Grade 5. 2005. pp. 309-317	
					7. Lesson Guide in Elem. Math Grade 4. 2010. pp. 317-321;325-328	
					8. Lesson Guide in Elem. Math Grade 5. 2010. pp. 372-377; 377-382	
					9. Mathematics for Everyone Grade 5. 2000. pp. 202-203*	
					10. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 315-328	
					11. Lesson Guide in Elementary Mathematics Grade 5. 2012. pp. 372-382	
					12. NFE Accreditation and Equivalency Learning Material. Perimeters and Areas. 1998. pp. 5-10	
					13. NFE Accreditation and Equivalency Learning Material. Perimeters and Areas. 1998. pp.	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					24-26	
			69. estimates the area of triangles, parallelograms, and trapezoids	**M4ME-IVc-59**		
			70. solves routine and non-routine problems involving squares, rectangles, triangles, parallelograms, and trapezoids.	**M4ME-IVc-60**	1. BEAM LG Gr.4 Module 13 – Area 2. Lesson Guide in Elem. Math Gr. 5 p. 386 3. Mathematics for Everyone Grade 5. 2000. pp. 204-205* 4. Lesson Guide in Elementary Mathematics Grade 5. 2012. pp. 386-389 5. NFE Accreditation and Equivalency Learning Material. Perimeters and Areas. 1998. p. 24, 26	
			71. creates problems(with reasonable answers) involving perimeter and area involving squares, rectangles, triangles, parallelograms, and trapezoids.	**M4ME-IVd-61**		
			72. visualizes the volume of solid figures in different situations using non-standard (e.g. marbles, etc.) and standard units.	**M4ME-IVd-62**	1. BEAM LG Gr.4 Module 14 – Volume 2. DLP Gr. 4 Module 87 3. Lesson Guide in Elem. Math Gr. 5 p.328 4. TEEP Grade 4. 2005. pp. 324-328 5. Lesson Guide in Elem. Math Grade 4. 2010. pp. 328-331	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					6. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp.328-331 7. BALS Video – Lesson 1: Units of Volume 8. BALS Video – Lesson 2: Measuring Volume 9. BALS Video – Lesson 3: Indigenous Measures of Volume	
			73. derives the formula for the volume of rectangular prisms.	**M4ME-IVe-63**	1. TEEP Grade 5. 2005. pp. 328-331 2. Lesson Guide in Elem. Math Grade 5. 2010. pp. 395-399 3. Lesson Guide in Elementary Mathematics Grade 5. 2012. pp. 395-399 4. Lesson Guide in Elementary Mathematics Grade 6. 2012. pp. 391-397 5. BALS Video – Lesson 2: Measuring Volume	1. Basic 3-Dimensional Models 2. Models of deriving formula for volume: 1000 pcs – 1 cm linking plastic cubes
			74. finds the volume of a rectangular prism using cu. cm and cu. m.	**M4ME-IVe-64**	1. Lesson Guide in Elem. Math Gr. 6 p.391 2. BALS Video – Lesson 2: Measuring Volume	
			75. solves routine and non-routine problems involving the volume of a rectangular prism.	**M4ME-IVf-65**	1. TEEP Grade 5. 2005. pp. 332-334 2. Lesson Guide in Elem. Math Grade 5. 2010. pp. 399-402 3. BALS Video – Lesson 2:	

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
					Measuring Volume	
			76. creates problems(with reasonable answers) involving volume of rectangular prism.	**M4ME-IVf-66**		
Statistics and Probability	demonstrates understanding of the concepts of bar graphs and simple experiments.	is able to create and interpret simple representations of data (tables and bar graphs) and describe outcomes in simple experiments.	77. collects data on two variables using any source.	**M4SP-IVg-1.4**		
			78. organizes data in tabular form and presents them in a single/double horizontal or vertical bar graph.	**M4SP-IVg-2.4**	1. Lesson Guide in Elem. Math Gr. 4 p.331, 337 2. TEEP Grade 4. 2005. pp. 332-335 3. Lesson Guide in Elem. Math Grade 4. 2010. pp. 331-336 4. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 337-339	
			79. interprets data presented in different kinds of bar graphs (vertical/horizontal, single/double bars).	**M4SP-IVg-3.4**	1. TEEP Grade 4. 2005. pp. 328-332 2. Grade School Mathematics Grade 4. 2003. pp. 226-229* 3. Mathematics for Everyday Life Grade 4. 2000. pp. 216-221* 4. Lesson Guide in Elementary Mathematics Grade 4. 2012. pp. 331-336	
			80. solves routine and non-routine problems using data presented in a single or double-bar graph.	**M4SP-IVh-4.4**		
			81. draws inferences based on data presented in a double-	**M4SP-IVh-5.4**		

CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY	CODE	LEARNING MATERIALS	MATH EQUIPMENT
	The learner...	The learner...	The learner...			
			bar graph.			
			82. records favorable outcomes in a simple experiment (e.g. tossing a coin, spinning a wheel, etc.)	**M4SP-IVi-9**		
			83. expresses the outcome in a simple experiment in words, symbols, tables, or graphs.	**M4SP-IVi-10**		
			84. explains the outcomes in an experiment.	**M4SP-IVi-11**		
			85. solves routine and non-routine problems involving a simple experiment.	**M4SP-IVj-12**		
			86. creates problems involving a simple experiment.	**M4SP-IVj-13**		

GLOSSARY

Accuracy	the quality of being correct and precise.
Applying	the skill of using concepts, procedures, algorithms and other mathematical constructs in practical situations and phenomena.
Communicating	the use of notations, symbols, figures, equations and functions to convey mathematical ideas.
Computing	the skill of calculating using correct algorithms, procedures and tools to arrive at a final exact result.
Conjecturing	the skill of formulating mathematical theories that still need to be proven.
Connecting	the skill of integrating mathematics to other school subjects and other areas in life.
Constructivism	the theory that knowledge is constructed when the learner is able to draw ideas from his/her own experiences and connects them to new ideas that are encountered.
Context	a locale, situation, or set of conditions of students that may influence their study and use of mathematics to develop critical thinking and problem solving skills.
Cooperative Learning	learning that is achieved by working with fellow learners as they all engage in a shared task.
Creativity	the skill of using available procedures in Mathematics and non-conventional methods to solve a problem and produce answers.
Critical Thinking	the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action (Scriven& Paul, 1987).
Decision-making	the skill of arriving at a choice or decision based on sound, logical procedures and mathematical analyses.
Discovery Learning	learning that is achieved by allowing students to discover new ideas using their experiences (Bruner, 1961).
Estimating	the skill of roughly calculating or judging a numerical value or quantity.
Experiential Learning	learning that occurs by making sense of direct everyday experiences (Kolb, 1984)
Inquiry-based Learning	learning that focuses on students asking questions and finding answers to their questions using their personal experiences.
Knowing and Understanding	meaningful acquisition of concepts that include memorizing and recalling of facts and procedures
Mathematical Problem Solving	finding a solution to a problem that is unknown (Polya, 1945 & 1962).
Modeling	the use of functions and graphs to represent relationships between and among quantities in a phenomenon.
Objectivity	the quality of judging, evaluating and making decisions based on mathematical facts and results without being influenced by subjective conditions.

Perseverance	firmness in finishing a task despite difficulties and obstacles.
Productivity	the quality of pursuing an activity to arrive at a meaningful and useful result or product.
Proving	the skill of demonstrating the truth or falsity of a theory using reasoning and arguments.
Reasoning	the process of explaining using sound analyses, following the rules of logic.
Reflective Learning	learning that is facilitated by deep thinking.
Representing	the use of figures and shapes, variables, equations and functions to concretize and illustrate quantities and their relationships.
Situated Learning	learning in the same context in which concepts and theories are applied.
Solving	to find the answer to an algebraic or mathematical problem using any procedures and tools available.
Visualizing	using one's creativity and imagination to produce images, pictures and other means to represent and understand mathematical concepts (MATHTED & SEI, 2010).

K to 12 BASIC EDUCATION CURRICULUM

Code Book Legend

Sample: M7AL-IIg-2

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Mathematics	**M7**
	Grade Level	Grade 7	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Patterns and Algebra	**AL**
			-
Roman Numeral *Zero if no specific quarter*	Quarter	Second Quarter	**II**
Lowercase Letter/s *Put a hyphen (-) in between letters to indicate more than a specific week*	Week	Week seven	**g**
			-
Arabic Number	Competency	Solves problems involving algebraic expressions	**2**

DOMAIN/ COMPONENT	CODE
Number Sense	NS
Geometry	GE
Patterns and Algebra	AL
Measurement	ME
Statistics and Probability	SP

REFERENCES

Akihiko Takahashi, Ted Watanabe, and Makoto Yoshida. *English Translation of the Japanese Mathematics Curricula in the course of Study,* (Madison: Global Education Resources L.L.C., 2008). http://ncm.gu.se/media/kursplaner/andralander/Japanese_COS2008Math.pdf

"Australian Math Curriculum," Australian Curriculum, Assessment and Reporting Authority, accessed May 23, 2013, http://www.australiancurriculum.edu.au/mathematics/curriculum/f-10?layout=1&y=1&y=2&y=3&y=4&y=5&y=6&s=NA&s=MG&s=SP

Bureau of Elementary Education, *2002 Basic Education Curriculum,* (Pasig City: Department of Education, 2002)

Bureau of Secondary Education, Department of Education. *Basic Education Curriculum*. Pasig City, 2002.

Bureau of Secondary Education, Department of Education Culture and Sports*. Desired Learning Competencies New Secondary Education Curriculum* Pasig City,1991.

Bureau of Secondary Education, Department of Education Culture and Sports. *Desired Learning Competencies Philippine Secondary Schools Learning Competencies*. Pasig City, 1998.

Bureau of Secondary Education, Department of Education. *Secondary Education Curriculum*. Pasig City, 2010.

California Department of Education, *California Common Core States Standard: Mathematics (Electronic Edition),* (California: Department of Education, 2013, 2014), http://www.cde.ca.gov/be/st/ss/documents/ccssmathstandardaug2013.pdf

Ministry of Education Singapore, *Mathematics Syllabus Primary,* (Singapore: Ministry of Education, 2006). https://www.moe.gov.sg/docs/default-source/document/education/syllabuses/sciences/files/2007-mathematics-%28primary%29-syllabus.pdf

South Africa Math Curriculum, *Curriculum and Policy Statement,* (South Africa: Department of Basic Education, 2011), file:///C:/Users/BLimuaco/Downloads/CAPS%20IP%20%20MATHEMATICS%20GR%204-6%20web.pdf