

CURRICULUM MAP

Real-Life Mathematics 4 (Second Edition)

Dear Teacher,

Greetings from Abiva Publishing House Inc.!

Thank you for adopting our textbook/s. Your chosen series title comes with functional teachers guides (TG) that provide you with a detailed curriculum map (CM) per grade level. For your reference, we are providing you below some important keys to understanding and using the components, terminologies, and abbreviations found in this teacher's companion tool.

We hope you will find the following CM most helpful in your daily planning and teaching tasks. Do suggest other ways we can make your chosen Abiva textbook/s more attuned to your needs as a teacher. You may send us your comments through our official email address at wecare@abiva.com.ph.

Happy teaching!

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Curriculum Map Components and Content Sources

Key Stage Standards	Taken from the DepEd Curriculum Guide for Mathematics
Grade Level Standards	Taken from the DepEd Curriculum Guide for Mathematics
Content Standards	Taken from the DepEd Curriculum Guide for Mathematics
Performance Standards	Taken from the DepEd Curriculum Guide for Mathematics
Content	Taken from the worktext: <i>Real-Life Mathematics 4 (Second Edition)</i>
K to 12 Learning Competencies (MELCs included)	Taken from the DepEd Curriculum Guide for Mathematics. The Most Essential Learning Competencies (MELCs) mandated by the DepEd are identified to guide teachers as they address the instructional needs of the learners while ensuring that curriculum standards are developed among home-schooling students in the new normal.
21st-Century Skills	Taken from the World Economic Forum, <i>New Vision for Education (2015)</i>
Teaching Strategies/Differentiated Instruction	A variety of author-suggested instructional strategies to help the teacher deliver the lessons at varying levels of difficulty based on the students' learning styles.
Assessment	Assessment tools and strategies categorized as either Formative or Summative
Values Integration	A list of values that are inherent in the subject and developed through lesson discussions and skills exercises. The teacher, however, is encouraged to emphasize values that are aligned with the school's own core values.
Resources	A rundown of suggested instructional materials which may take the form of traditional resources, teacher-made resources, educational software, and other digital learning resources.



LEARNING SKILLS (Competencies): Communication • Collaboration • Critical thinking/problem solving • Creativity
LITERACY SKILLS (Foundation Literacies): Literacy and numeracy • Scientific literacy • ICT literacy • Financial literacy • Cultural literacy • Civic literacy
LIFE SKILLS (Character Qualities): Initiative • Persistence • Adaptability • Curiosity • Leadership • Social and cultural awareness • Career • Work ethics

Key Stage Standards (4–6)	At the end of grade 6, the learner demonstrates understanding and appreciation of key concepts and skills involving numbers and number sense (whole numbers, number theory, fractions, decimals, ratio and proportion, percent, and integers); measurement (time, speed, perimeter, circumference and area of plane figures, volume and surface area of solid/space figures, temperature, and meter reading); geometry (parallel and perpendicular lines, angles, triangles, quadrilaterals, polygons, circles, and solid figures); patterns and algebra (continuous and repeating patterns, number sentences, sequences, and simple equations); statistics and probability (bar graphs, line graphs and pie graphs, simple experiment, and experimental probability) as applied – using appropriate technology – in critical thinking, problem solving, reasoning, communicating, making connections, representations, and decisions in real life.
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Grade Level Standards	The learner demonstrates understanding and appreciation of key concepts and skills involving numbers and number sense (whole numbers up to 100 000, multiplication and division of whole numbers, order of operations, factors and multiples, addition and subtraction of fractions, and basic concepts of decimals including money); geometry (lines, angles, triangles, and quadrilaterals); patterns and algebra (continuous and repeating patterns and number sequence); measurement (time, perimeter, area, and volume); and statistics and probability (tables, bar graphs, and simple experiments) as applied – using appropriate technology – in critical thinking, problem solving, reasoning, communicating, making connections, representations, and decisions in real life.
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1st Quarter

Chapter 1: Whole Numbers		Time Frame: 8 days	
Content Standard*	The learner demonstrates understanding of whole numbers up to 100,000.	Performance Standard*	The learner is able to recognize and represent whole numbers up to 100,000 in various forms and contexts.

**As add-on skill, discussions and exercises in some parts of the chapter involve numbers greater than 100,000.*

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Content	K to 12 Learning Competencies** (MELCs included)	21st-Century Skills	Teaching Strategies/ Differentiated Instruction	Assessment	Values Integration	Resources
LESSON 1 <i>Reading and Writing Large Numbers</i>	<p>M4NS-Ia-9.4 MELC Read and write numbers up to hundred thousand in symbols and in words</p> <p>MELC Read and write numbers, in symbols and in words, up to hundred thousand and compare them using relation symbols</p>	<p>Literacy and Numeracy Learning to be careful and accurate in writing large numbers properly</p> <p>Collaboration Working in pairs in activities</p>	<p>Practice and Drill Reading 3- to 4-digit numbers using flash cards</p> <p>Review Identifying the periods and values of digits in the ten thousands</p> <p>Guided Learning</p> <ul style="list-style-type: none"> • Leading the students to write large numbers into groups of three digits • Asking students to identify each digit in large numbers and give its value • Guiding the students in reading numbers • Providing other examples 	<p>Formative</p> <ul style="list-style-type: none"> • Oral and written exercises • Think-Pair-Share 	<ul style="list-style-type: none"> • Being cooperative • Valuing the importance of teamwork • Having accuracy 	<ul style="list-style-type: none"> • flash cards with large numbers • sets of cards with digits 0 to 9 • pocket place value chart
LESSON 2 <i>Place Value Through Hundred Thousands</i>	<p>M4NS-Ia-10.4 MELC Give the place value and value of a digit in numbers up to 100,000</p>	<p>Communication Learning to better understand place value through an exchange of ideas/queries</p> <p>Literacy and Numeracy Understanding the concept of place value in the number system</p>	<p>Practice and Drill Reading 5- to 6-digit numbers</p> <p>Review Writing 5- to 6-digit numbers in expanded notation</p>	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share 	<ul style="list-style-type: none"> • Having perseverance • Having accuracy • Patronizing local products 	place value chart

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		<p>Collaboration Working in pairs in activities</p>	<p>Discussion</p> <ul style="list-style-type: none"> • Showing how to write large numbers using a place value chart • Guiding the students in identifying the periods, place values, and values in numbers • Pointing out how the value of a digit is obtained by writing a number in expanded form • Providing several examples to test the students' understanding 			
<p>LESSON 3 <i>Rounding Large Numbers</i></p>	<p>M4NS-Ib-5.2 MELC Round numbers to the nearest thousand and ten thousand</p>	<p>Critical Thinking Learning to be accurate in identifying and applying patterns in rounding numbers</p> <p>Collaboration Working in pairs in activities</p>	<p>Review Identifying the digit in a given place value</p> <p>Guided Learning</p> <ul style="list-style-type: none"> • Presenting a number and letting volunteer students identify the rounding place and the digit to its right • Having the students recall the rules in rounding off numbers • Providing more examples for students to answer 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share 	<ul style="list-style-type: none"> • Having perseverance in arriving at the correct solution • Being cooperative • Having accuracy 	<ul style="list-style-type: none"> • place value chart • number cards
<p>LESSON 4 <i>Comparing and Ordering Numbers</i></p>	<p>M4NS-Ib-12.4 MELC Compare numbers up to 100,000 using relation symbols</p>	<p>Literacy and Numeracy Identifying correctly the place value of every digit in a number</p>	<p>Review Identifying the digit in a given place value</p>	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Homework 	<ul style="list-style-type: none"> • Following directions carefully • Having accuracy • Valuing the importance of teamwork 	<ul style="list-style-type: none"> • place value chart • number cards

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	<p>MELC Read and write numbers, in symbols and in words, up to hundred thousand and compare them using relation symbols</p> <p>M4NS-Ib-13.4 MELC Order numbers up to 100,000 in increasing or decreasing order</p>	<p>Creativity Forming numbers based on given conditions</p> <p>Collaboration Working in pairs in activities</p>	<p>Demonstration</p> <ul style="list-style-type: none"> Showing how to compare numbers using a place value chart Pointing out the relation symbols used Writing numbers in ascending order and having volunteer students arrange them in descending order 	<p>Summative Written exercise</p>		
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**Boldfaced text in some competencies mean that only those parts are developed in that particular lesson. The rest are developed in the next or other lessons in the chapter/book. Italicized text under *K to 12 Learning Competencies* are add-on competencies.

Chapter 2: Multiplication of Numbers		Time Frame: 12 days	
Content Standard	The learner demonstrates understanding of multiplication of whole numbers, including money.	Performance Standard	The learner is able to apply multiplication of whole numbers, including money, in mathematical problems and in real-life situations.

Content	K to 12 Learning Competencies** (MELCs included)	21st-Century Skills	Teaching Strategies/ Differentiated Instruction	Assessment	Values Integration	Resources
LESSON 1 <i>Two-Digit Multipliers</i>	M4NS-Ic-43.7 MELC Multiply numbers up to 3-digit numbers by up to 2-digit numbers without or with regrouping	<p>Critical Thinking Learning when and how to regroup in multiplication</p> <p>Persistence Learning to be patient in trying to do and master the</p>	<p>Drill and Practice Practicing basic multiplication facts</p> <p>Review Multiplying 2- by 1-digit numbers</p>	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Think-Pair-Share Problem solving 	<ul style="list-style-type: none"> Appreciating the value of math skills in everyday life Learning to give love and take care of the environment 	multiplication tables of 3 and 4


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		<p>multiplication algorithm</p> <p>Civic Literacy Learning to protect the environment</p>	<p>Demonstration</p> <ul style="list-style-type: none"> Recalling the meaning of the terms related to multiplication Illustrating how to multiply numbers using the expanded form then the step-by-step algorithm Showing examples where regrouping is needed 			
<p>LESSON 2 <i>Estimating Products</i></p>	<p>M4NS-Ic-44.2 MELC Estimate the products of 3- to 4-digit numbers by 2- to 3-digit numbers with reasonable results</p>	<p>Literacy and Numeracy Learning to estimate products</p> <p>Collaboration Working in pairs in activities</p>	<p>Drill and Practice Multiplying by multiples of 10 and 100</p> <p>Review Rounding off numbers to the greatest place value</p> <p>Discussion</p> <ul style="list-style-type: none"> Recalling what an estimate is and asking students how they estimated sum and difference in previous grade levels Having the students study examples of estimating products Leading the class to identify patterns 	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Think-Pair-Share Problem solving 	<ul style="list-style-type: none"> Appreciating the usefulness of estimation in day-to-day living Valuing the importance of reading Being diligent 	<p>picture of a library with shelves of books</p>
<p>LESSON 3 <i>Mental Multiplication</i></p>	<p>M4NS-Id-42.3 MELC Multiply mentally 2-digit by 1- to 2-digit numbers with products up to 200</p>	<p>Literacy and Numeracy Knowing and applying the basic facts and the properties in dealing</p>	<p>Oral Drill Practicing basic multiplication facts using flash cards</p>	<p>Formative</p> <ul style="list-style-type: none"> Oral and written exercises Think-Pair-Share Problem solving 	<ul style="list-style-type: none"> Appreciating the importance of mental multiplication Being accuracy Having perseverance 	<ul style="list-style-type: none"> picture cards flash cards

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	and explain the strategies used	with mental multiplication Critical Thinking Applying appropriate mental multiplication strategies in solving problems Collaboration Working in pairs in activities	Review Recalling the properties of multiplication Demonstration <ul style="list-style-type: none"> • Showing how to apply the properties of multiplication to find products mentally • Pointing out how knowing the basic facts helps in mental multiplication 			
LESSON 4 <i>Problems Involving Multiplication</i>	M4NS-Id-45.4  Solve routine and nonroutine problems involving multiplication of whole numbers including money using appropriate problem-solving strategies and tools	Problem Solving Learning and applying the four-step plan in solving word problems	Drill and Practice Practicing basic multiplication facts using flash or window cards Review Multiplying by 2-digit numbers Guided Learning <ul style="list-style-type: none"> • Working out the solution to a word problem cooperatively with the class • Asking leading questions to have the students follow the four-step plan • Pointing out how using clue words helps in solving a problem • Providing more examples for students to answer 	Formative Problem solving	<ul style="list-style-type: none"> • Being cooperative • Realizing the importance of solidarity in one's family 	<ul style="list-style-type: none"> • flash or window cards • picture showing a man driving a car with his family

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<p>LESSON 5 <i>Multistep Problems Involving Multiplication</i></p>	<p>M4NS-Ie-45.5 MELC Solve multistep routine and nonroutine problems involving multiplication and addition or subtraction using appropriate problem-solving strategies and tools</p>	<p>Communication Learning to express and share one's ideas</p> <p>Problem Solving Applying the steps in solving word problems</p> <p>Collaboration Working in pairs in activities</p>	<p>Drill and Practice Practicing basic multiplication facts using window cards</p> <p>Review Multiplying by 1- to 2-digit numbers</p> <p>Discussion</p> <ul style="list-style-type: none"> • Guiding the students in analyzing word problems • Asking comprehension questions to lead the students to decide on the operations to use • Having the students solve for the hidden question first then the answer to the problem • Reminding the students to write a complete answer 	<p>Formative</p> <ul style="list-style-type: none"> • Problem solving • Think-Pair-Share 	<ul style="list-style-type: none"> • Observing the rules in school and at home • Being a responsible child 	<ul style="list-style-type: none"> • window cards • chart containing the steps in problem solving
<p>LESSON 6 <i>Creating Word Problems Involving Multiplication</i></p>	<p>M4NS-Ie-46.3 MELC Create problems (with reasonable answers) involving multiplication or with addition or subtraction of whole numbers including money</p>	<p>Critical Thinking Learning to analyze the given facts to create one- or two-step problems</p> <p>Problem Solving Applying the steps in solving word problems</p> <p>Collaboration Working in pairs in activities</p>	<p>Review Recalling the steps in problem solving</p> <p>Discussion</p> <ul style="list-style-type: none"> • Explaining the pointers to remember when formulating word problems • Leading the students to think of good questions to ask about a given 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share <p>Summative</p> <ul style="list-style-type: none"> • Written exercise • Problem solving 	<ul style="list-style-type: none"> • Having accuracy • Valuing the importance of teamwork • Being determined in pursuing one's goals 	<p>(none)</p>

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			situation <ul style="list-style-type: none"> • Providing examples that involve two steps 		
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**Boldfaced text in some competencies mean that only those parts are developed in that particular lesson. The rest are developed in the next or other lessons in the chapter/book. Italicized text under *K to 12 Learning Competencies* are add-on competencies.

Chapter 3: Division of Numbers		Time Frame: 17 days	
Content Standard	The learner demonstrates understanding of division of whole numbers, including money.	Performance Standard	The learner is able to apply division of whole numbers, including money, in mathematical problems and in real-life situations.

Content	K to 12 Learning Competencies** (MELCs included)	21st-Century Skills	Teaching Strategies/ Differentiated Instruction	Assessment	Values Integration	Resources
LESSON 1 <i>One- to Two-Digit Divisors</i>	M4NS-If-54.3 MELC Divide 3- to 4-digit numbers by 1- to 2-digit numbers without and with remainder	Critical Thinking Learning to find appropriate trial divisor to make division easy Literacy and Numeracy Learning to divide by 1- to 2-digit divisors	Drill and Practice Practicing basic multiplication and division facts using fact triangles Review Dividing 3- to 4-digit numbers by 1-digit numbers without remainder Demonstration <ul style="list-style-type: none"> • Illustrating the algorithm for dividing by 1- to 2-digit numbers • Explaining how trial divisor helps in division • Showing how checking is done • Providing several examples for students to practice on 	Formative <ul style="list-style-type: none"> • Written exercise • Problem solving 	<ul style="list-style-type: none"> • Having perseverance in arriving at the correct solution • Having accuracy 	fact triangles for multiplication and division

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<p>LESSON 2 <i>Dividing by 10, 100, and 1000</i></p>	<p>M4NS-If-54.4 MELC Divide 3- to 4-digit numbers by tens or hundreds or by 1000 without and with remainder</p>	<p>Critical Thinking Learning to observe patterns and make generalizations</p> <p>Literacy and Numeracy Learning to divide numbers by 10, 100, and 1000</p> <p>Collaboration Learning to share one's useful ideas in performing tasks</p>	<p>Drill and Practice Practicing basic division facts using window cards</p> <p>Review Multiplying numbers by 10, 100, and 1000</p> <p>Inductive Method</p> <ul style="list-style-type: none"> • Working out division problems cooperatively with the students • Leading the students to observe the pattern as they solve each example • Pointing out what happens when a number with no terminal zeros is divided by 10, 100, and 1000 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Having accuracy • Being cooperative • Making use of past experiences/ knowledge to solve problems 	<p>window cards</p>
<p>LESSON 3 <i>Estimating Quotients</i></p>	<p>M4NS-Ig-55.2 MELC Estimate the quotient of 3- to 4-digit dividends by 1- to 2-digit divisors with reasonable results</p>	<p>Literacy and Numeracy Learning how to use the basic division facts</p> <p>Critical Thinking Learning to make use of compatible numbers to make estimation easy</p>	<p>Drill and Practice Practicing basic multiplication and division facts using fact triangles</p> <p>Review Dividing 3- to 4-digit numbers by multiples of 10</p> <p>Guided Learning</p> <ul style="list-style-type: none"> • Explaining what the students have to find when a problem asks 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Applying knowledge gained to real-life activities that call for estimation • Being diligent • Being cooperative 	<p>fact triangles</p>

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			<ul style="list-style-type: none"> for about how many • Taking up the solution to a problem with the class • Pointing out how to use compatible numbers • Giving the students more examples 			
LESSON 4 <i>Mental Division</i>	<p>M4NS-Ig-52.3 MELC Divide mentally 2- to 3-digit numbers by 1-digit numbers without remainder using appropriate strategies</p> <p>MELC Divide mentally 2- to 4-digit numbers by tens or hundreds or by 1000 without and with remainder</p>	<p>Literacy and Numeracy Applying previous knowledge to divide mentally</p> <p>Critical Thinking Finding appropriate addends when renaming dividends</p> <p>Collaboration Working in pairs in activities</p>	<p>Drill and Practice Practicing basic division facts using fact triangles</p> <p>Review Recalling the concept of compatible numbers</p> <p>Demonstration</p> <ul style="list-style-type: none"> • Showing how to rename dividends to divide numbers mentally • Providing several examples for students to practice on 	<p>Formative</p> <ul style="list-style-type: none"> • Oral and written exercises • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Having accuracy • Valuing the importance of teamwork • Recognizing the sense of self-reliance 	fact triangles
LESSON 5 <i>One-Step Division Problems</i>	<p>M4NS-Ih-56.3 MELC Solve routine and nonroutine problems involving division of 3- to 4-digit numbers by 1- to 2-digit numbers including money using appropriate problem-solving strategies and tools</p>	<p>Problem solving Applying the four-step plan in solving word problems</p> <p>Adaptability Learning to cope with life's discomforts like floods, typhoons, and other calamities</p> <p>Collaboration Working in pairs in activities</p>	<p>Drill and Practice Practicing basic multiplication and division facts using fact triangles</p> <p>Review Dividing by 1- to 2-digit numbers</p> <p>Discussion</p> <ul style="list-style-type: none"> • Discussing with the students how to solve a problem • Having the students 	<p>Formative</p> <ul style="list-style-type: none"> • Problem solving • Think-Pair-Share • Homework 	<ul style="list-style-type: none"> • Having compassion towards victims of calamities • Giving importance to learning how to be well-prepared if a disaster occurs 	<ul style="list-style-type: none"> • fact triangles • picture of people receiving relief goods

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			<p>read a situation and asking them comprehension questions to analyze the given facts</p> <ul style="list-style-type: none"> • Finding the solution cooperatively with the class • Pointing out the previously discussed concepts 			
<p>LESSON 6 <i>Multistep Problems in Division</i></p>	<p>M4NS-Ih-56.4 MELC Solve multistep routine and nonroutine problems involving division and any of the other operations of whole numbers including money using appropriate problem-solving strategies and tools</p>	<p>Problem Solving Applying the four-step plan in solving word problems</p> <p>Collaboration Learning to share one's knowledge with others</p>	<p>Drill and Practice Practicing basic division facts using fact triangles</p> <p>Review Having a short review on the steps to follow in problem solving</p> <p>Guided Learning</p> <ul style="list-style-type: none"> • Presenting and asking comprehension questions about two- and three-step word problems • Leading the students in applying the four-step plan • Having the students check the answer by working backward 	<p>Formative</p> <ul style="list-style-type: none"> • Problem solving • Think-Pair-Share • Homework 	<ul style="list-style-type: none"> • Being respectful and loving to the elders • Being cooperative • Having perseverance 	<ul style="list-style-type: none"> • window cards • fact triangles • picture of grandmother giving money to grandchildren
<p>LESSON 7 <i>Creating Word Problems</i></p>	<p>M4NS-li-57.3 MELC Create problems involving division without or with any other operations of whole numbers</p>	<p>Critical Thinking Analyzing the given facts to create own word problems</p>	<p>Review Recalling how to create word problems</p> <p>Discussion</p> <ul style="list-style-type: none"> • Having the students 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Having accuracy • Being patient • Valuing the importance of teamwork 	<p>perception cards containing given facts about problems</p>

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	including money, with reasonable answers	<p>Problem Solving Applying the four steps in solving word problems</p> <p>Collaboration Working in pairs in activities</p>	<p>follow the pointers in creating a word problem for a given set of facts</p> <ul style="list-style-type: none"> Letting the students use the four-step plan in solving the problems they have formulated 			
<p>LESSON 8 <i>Order of Operations</i></p>	<p>M4NS-li-61.1 MELC Represent and explain Multiplication, Division, Addition, Subtraction (MDAS) correctly</p> <p>M4NS-lj-62.1 MELC Perform a series of two or more operations</p> <p>MELC Perform a series of two or more operations applying Multiplication, Division, Addition, Subtraction (MDAS) correctly</p>	<p>Critical Thinking Applying the rule of operations carefully in simplifying number expressions</p> <p>Collaboration Working in pairs in activities</p>	<p>Review</p> <ul style="list-style-type: none"> Recalling how to solve a word problem Pointing out that writing an equation is an important step in problem solving <p>Demonstration</p> <ul style="list-style-type: none"> Illustrating how the MDAS rule is applied in simplifying number expressions Providing several examples written on perception cards Emphasizing the meaning of the acronym <i>MDAS</i> 	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Homework Think-Pair-Share <p>Summative</p> <ul style="list-style-type: none"> Written exercise Problem solving 	<ul style="list-style-type: none"> Having perseverance in doing tasks properly at home and in school Having accuracy Practicing tolerance 	<p>perception cards containing number expressions involving different operations</p>

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2nd Quarter

Chapter 4: Number Theory and Fractions		Time Frame: 29 days	
Content Standards	The learner demonstrates understanding of . . . <ul style="list-style-type: none"> • factors and multiples and addition and subtraction of fractions; and • improper fractions and mixed numbers. 	Performance Standards	The learner is able to . . . <ul style="list-style-type: none"> • apply knowledge of factors and multiples, and addition and subtraction of fractions in mathematical problems and real-life situations; and • recognize and represent improper fractions and mixed numbers in various forms and contexts.

Content	K to 12 Learning Competencies** (MELCs included)	21st-Century Skills	Teaching Strategies/ Differentiated Instruction	Assessment	Values Integration	Resources
LESSON 1 <i>Factors and Common Factors</i>	<p>M4NS-IIa-64 MELC Identify factors of a given number up to 100</p> <p>M4NS-IIc-68.1 MELC Find the common factors and the greatest common factor (GCF) of two numbers using the following methods: listing, prime factorization, and continuous division</p> <p>MELC Find the common factors, greatest common factor (GCF),</p>	<p>Literacy and Numeracy Learning to identify the factors and common factors of two or more numbers</p> <p>Collaboration Learning to share one's knowledge with others</p>	<p>Review Identifying factors and products in multiplication sentences</p> <p>Discussion</p> <ul style="list-style-type: none"> • Pointing out that a number may have several sets of factors • Having the students identify factor pairs of given numbers • Leading the students to observe that some numbers have common factors or common divisors • Providing more examples 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Having perseverance in arriving at the correct answer • Being accurate 	perception cards containing multiplication exercises

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	common multiples, and least common multiple (LCM) of two numbers using the following methods: listing , prime factorization, and continuous division					
LESSON 2 <i>Multiples and Common Multiples</i>	<p>M4NS-IIa-65 MELC Identify the multiples of a given number up to 100</p> <p>M4NS-IIc-69.1 MELC Find the common multiples and least common multiple (LCM) of two numbers using the following methods: listing, prime factorization, and continuous division</p> <p>MELC Find the common factors, greatest common factor (GCF), common multiples, and least common multiple (LCM) of two numbers using the following methods: listing, prime factorization, and continuous division</p>	<p>Literacy and Numeracy Learning how to find the multiples and common multiples of two numbers</p> <p>Collaboration Working in pairs in activities</p>	<p>Oral Drill Skip counting by 3s, 4s, and 5s</p> <p>Discussion</p> <ul style="list-style-type: none"> Pointing out that the numbers mentioned when skip counting are called <i>multiples</i> Explaining what <i>multiples of a number</i> mean Having the students identify multiples and common multiples of numbers using a hundred chart Emphasizing that a number has an unlimited number of multiples 	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Think-Pair-Share 	<ul style="list-style-type: none"> Being productive in pursuing the given tasks Being accurate Valuing the importance of teamwork 	hundred chart
LESSON 3 <i>Prime and Composite Numbers</i>	<p>M4NS-IIb-66 MELC Differentiate prime from composite numbers</p>	<p>Literacy and Numeracy</p> <ul style="list-style-type: none"> Learning to understand the 	<p>Oral Drill Practicing basic multiplication facts using fact triangles</p>	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Think-Pair-Share Homework 	<ul style="list-style-type: none"> Being accurate when working out one's daily tasks Being persistent Being cooperative 	<ul style="list-style-type: none"> fact triangles pictures of objects arranged in different ways

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	<p>M4NS-IIb-67 MELC</p> <p>Write a given number as a product of its prime factors</p>	<p>concept of prime factorization</p> <ul style="list-style-type: none"> Finding the prime factors of a number in a variety of ways 	<p>Review Identifying factors and products in multiplication sentences</p> <p>Guided Discovery</p> <ul style="list-style-type: none"> Leading the students to write multiplication sentences for objects arranged in arrays Having the students identify the factors of the numbers Letting volunteer students group the numbers according to number of factors Introducing the terms <i>prime</i> and <i>composite</i> <p>Demonstration</p> <ul style="list-style-type: none"> Showing how to write a composite number as a product of its prime factors using various methods Telling students what <i>prime factorization</i> means 			
<p>LESSON 4 <i>The Greatest Common Factor of Numbers</i></p>	<p>M4NS-IIa-64 MELC</p> <p>Identify factors of a given number up to 100</p> <p>M4NS-IIc-68.1 MELC</p> <p>Find the common factors and the greatest</p>	<p>Creativity Learning to choose a more convenient method of finding the GCF</p> <p>Collaboration Learning to share one's</p>	<p>Oral Drill Practicing basic division facts using fact triangles</p> <p>Review</p> <ul style="list-style-type: none"> Identifying common parts in division sentences and 	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Think-Pair-Share Problem solving 	<ul style="list-style-type: none"> Being cooperative in carrying out the activities Being accurate Being diligent 	<ul style="list-style-type: none"> fact triangles counters

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	<p>common factor (GCF) of two numbers using the following methods: listing, prime factorization, and continuous division</p> <p>MELC Find the common factors, greatest common factor (GCF), common multiples, and least common multiple (LCM) of two numbers using the following methods: listing, prime factorization, and continuous division</p>	<p>knowledge with others</p>	<p>defining <i>factors</i></p> <ul style="list-style-type: none"> Solving simple division problems <p>Use of Manipulatives</p> <ul style="list-style-type: none"> Having the students recall the concept of factor or divisor of a number using counters Letting volunteer students identify the common factors of numbers Leading the students to name the common factor with the greatest value to introduce GCF <p>Demonstration</p> <ul style="list-style-type: none"> Showing how to find the GCF of two or more numbers using different methods Pointing out that the students will get the same prime factors from such methods 			
<p>LESSON 5 <i>The Least Common Multiple of Numbers</i></p>	<p>M4NS-IIc-69.1 MELC Find the common multiples and least common multiple (LCM) of two numbers using the following methods: listing, prime factorization, and continuous division</p>	<p>Creativity Learning to choose the more convenient method of finding the LCM</p> <p>Collaboration Working in pairs in activities</p>	<p>Drill and Practice Practicing basic multiplication facts using fact triangles</p> <p>Review Finding the GCF of two or more numbers</p>	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Think-Pair-Share 	<ul style="list-style-type: none"> Learning how to make wise decisions Being accurate Having perseverance 	<p>fact triangles</p>

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	<p>MELC Find the common factors, greatest common factor (GCF), common multiples, and least common multiple (LCM) of two numbers using the following methods: listing, prime factorization, and continuous division</p>		<p>Demonstration</p> <ul style="list-style-type: none"> Defining the <i>least common multiple</i> Illustrating how to find the LCM of numbers using various methods Providing examples for students to practice on 			
<p>LESSON 6 <i>Problem Solving Involving GCF and LCM</i></p>	<p>M4NS-IId-70.1 MELC Solve real-life problems involving GCF and LCM of 2 given numbers</p>	<p>Critical Thinking Learning when and how to use the GCF and LCM in solving a problem</p> <p>Creativity Learning to choose the more convenient method of finding the GCF and LCM</p>	<p>Review Finding the GCF and LCM of two given numbers</p> <p>Discussion</p> <ul style="list-style-type: none"> Presenting word problems that require finding the GCF and LCM Asking comprehension questions to check on students' understanding of each problem Having the students recall and use the different methods they learned in finding the GCF and LCM 	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Think-Pair-Share Problem solving 	<ul style="list-style-type: none"> Appreciating the usefulness of the lesson in solving real-life problems Valuing the importance of teamwork 	<p>picture of a girl wrapping a gift</p>
<p>LESSON 7 <i>Creating Problems Involving GCF and LCM</i></p>	<p>M4NS-IId-71.1 MELC Create problems with reasonable answers involving GCF and LCM of 2 given numbers</p>	<p>Creativity Learning to apply previous knowledge in creating word problems about GCF and LCM</p>	<p>Review Finding the GCF and LCM of two given numbers</p>	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Think-Pair-Share Problem solving 	<ul style="list-style-type: none"> Being cooperative in accomplishing a shared task Being accurate Being patient 	<p>(none)</p>

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		<p>Problem Solving Applying the four-step plan in solving word problems</p> <p>Collaboration Working in pairs in activities</p>	<p>Discussion</p> <ul style="list-style-type: none"> Letting the students recall the pointers in creating word problems Guiding the students in thinking of a good question to ask for each set of given facts Reminding the students to use the four-step plan in solving the problems they created 			
<p>LESSON 8 <i>Kinds of Fractions</i></p>	<p>M4NS-Ile-79.2 MELC Identify proper fractions, improper fractions, and mixed numbers</p> <p>M4NS-Ile-80 MELC Change improper fractions to mixed numbers and vice versa</p>	<p>Communication Expressing own ideas clearly</p> <p>Literacy and Numeracy</p> <ul style="list-style-type: none"> Identifying different kinds of fractions Renaming fractions 	<p>Drill and Practice Reading fractions written in symbols</p> <p>Review Writing fractions for a shaded part of a whole or set using picture cards</p> <p>Inductive Method</p> <ul style="list-style-type: none"> Showing cutouts depicting different kinds of fractions Leading the students to observe the value of each fraction with respect to 1 and compare its numerator and denominator Having the students give examples of each kind of fraction 	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Think-Pair-Share Homework Problem solving 	<ul style="list-style-type: none"> Listening attentively Participating actively in the discussion Valuing the importance of teamwork Being accurate 	<ul style="list-style-type: none"> picture cards rectangular cutouts showing the different kinds of fraction

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			Demonstration Illustrating how to write mixed numbers as improper fractions and vice versa			
LESSON 9 <i>Fractions in Lowest Form</i>	M4NS-IIe-81 MELC Change fractions to lowest forms	Critical Thinking Learning to identify when a fraction needs to be expressed in lowest form Literacy and Numeracy Expressing fractions in lowest forms	Drill and Practice Conducting a drill on division fact families Review Recalling the concept of factors of a number using counters Demonstration • Showing how to reduce fractions to lowest terms using the GCF of the numerator and denominator • Providing several examples	Formative • Written exercise • Homework • Think-Pair-Share • Problem solving	<ul style="list-style-type: none"> • Appreciating the importance of fractions • Being diligent • Being creative 	counters
LESSON 10 <i>Adding and Subtracting Similar Fractions</i>	M4NS-IIf-82.1 MELC Visualize addition and subtraction of similar fractions MELC Visualize addition and subtraction of similar and dissimilar fractions M4NS-IIg-83 MELC Perform addition and subtraction of similar and dissimilar fractions	Literacy and Numeracy • Adding and subtracting similar and dissimilar fractions • Expressing fractions in lowest form Collaboration Working in pairs in activities	Drill and Practice Identifying similar fractions Review Expressing fractions in lowest terms Discussion • Leading the students to the notion of adding similar and dissimilar fractions using fruits and leaves • Showing how to add	Formative • Written exercise • Homework • Think-Pair-Share • Problem solving	<ul style="list-style-type: none"> • Being accurate • Being persistent 	<ul style="list-style-type: none"> • paper plates • fruits

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			<p>and subtract similar fractions</p> <ul style="list-style-type: none"> • Pointing out that the answer should be expressed in lowest terms • Providing several examples 			
<p>LESSON 11 <i>Subtracting a Fraction from a Whole Number</i></p>	<p>M4NS-II-f-82.2 MELC Visualize subtraction of a fraction from a whole number</p> <p><i>Perform subtraction of a fraction from a whole number</i></p>	<p>Literacy and Numeracy Subtracting a fraction from a whole number</p> <p>Critical Thinking Learning to find appropriate denominators in renaming whole numbers</p>	<p>Drill and Practice Reading fractions and mixed numbers</p> <p>Review Expressing whole numbers as fractions or mixed numbers</p> <p>Guided Learning</p> <ul style="list-style-type: none"> • Illustrating how to subtract a fraction from a whole number using rectangular regions then by algorithm • Pointing out how to rename the whole number properly • Giving several examples 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Homework • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Sharing with others the benefits/gifts received • Being cooperative • Being accurate 	<p>rectangular regions</p>
<p>LESSON 12 <i>Adding and Subtracting Dissimilar Fractions</i></p>	<p>M4NS-II-g-82.3 MELC Visualize addition and subtraction of dissimilar fractions</p> <p>MELC Visualize addition and subtraction of similar and dissimilar</p>	<p>Critical Thinking Learning to find appropriate denominators in renaming dissimilar fractions</p> <p>Literacy and Numeracy Adding and subtracting</p>	<p>Review</p> <ul style="list-style-type: none"> • Expressing fractions in lowest terms • Renaming dissimilar to similar fractions <p>Pictorial to Abstract Method</p> <ul style="list-style-type: none"> • Illustrating how to add dissimilar fractions 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Homework • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Valuing the importance of sharing • Having accuracy • Having perseverance 	<ul style="list-style-type: none"> • paper plates • real objects

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	<p>fractions</p> <p>M4NS-IIg-83 MELC Perform addition and subtraction of similar and dissimilar fractions</p>	dissimilar fractions	<p>using paper plates</p> <ul style="list-style-type: none"> • Showing how calculation is done without illustrations • Pointing out that the answer should be expressed in lowest terms • Giving other examples that involve subtraction 			
<p>LESSON 13 <i>Word Problems About Fractions</i></p>	<p>M4NS-IIIh-87.1 MELC Solve routine and nonroutine problems involving addition and/or subtraction of fractions using appropriate problem-solving strategies and tools</p>	<p>Problem Solving</p> <ul style="list-style-type: none"> • Learning to identify the hidden question in two-step problems • Applying the 4-step plan in problem solving 	<p>Oral Drill Adding and subtracting similar fractions using flash cards</p> <p>Review Subtracting similar fractions</p> <p>Guided Learning</p> <ul style="list-style-type: none"> • Solving a two-step problem cooperatively with the class • Asking comprehension questions to have the students understand the problems well • Drawing a number line to illustrate the problems • Reminding the students to state the complete answer • Letting the students use the four-step plan in solving other problems 	<p>Formative</p> <ul style="list-style-type: none"> • Problem solving • Think-Pair-Share • Homework 	<ul style="list-style-type: none"> • Being accurate • Being precise in performing one's tasks 	flash cards

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LESSON 14 <i>Creating Word Problems on Addition and Subtraction of Fractions</i>	M4NS-IIIh-88.1 Create problems (with reasonable answers) involving addition and/or subtraction of fractions	Problem solving Applying the four-step plan in solving problems Critical Thinking Analyzing the given situation and facts to think of a suitable question to ask	Review <ul style="list-style-type: none"> • Adding and subtracting fractions • Recalling the pointers in creating word problems Discussion <ul style="list-style-type: none"> • Guiding the students in thinking about good questions to ask about a given situation • Letting the students apply the four-step plan in solving the problem they created • Providing other examples 	Formative <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving Summative <ul style="list-style-type: none"> • Written exercise • Problem solving 	<ul style="list-style-type: none"> • Being accurate • Having perseverance in doing and finishing assigned tasks 	picture of Boy Scouts engaged in various activities
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Chapter 5: Decimals		Time Frame: 12 days	
Content Standard***	<i>The learner demonstrates understanding of decimals.</i>	Performance Standard***	<i>The learner is able to recognize and represent decimals in various forms and contexts.</i>

***Content and performance standards for the chapter are considered add-ons since learning competencies on decimals do not have corresponding standards in the CG.

Content	K to 12 Learning Competencies** (MELCs included)	21st-Century Skills	Teaching Strategies/ Differentiated Instruction	Assessment	Values Integration	Resources
LESSON 1 <i>Decimals as Tenths and Hundredths</i>	M4NS-III-99 MELC Visualize decimal numbers using models like blocks, grids,	Literacy and Numeracy Learning to understand the concept of decimals	Review Reading and writing fractions	Formative <ul style="list-style-type: none"> • Written exercise • Problem solving • Homework 	<ul style="list-style-type: none"> • Being accurate • Being diligent 	<ul style="list-style-type: none"> • decimal models • place value chart • number line • coins

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	number lines, and money to show the relationship to fractions	Critical Thinking Applying prior knowledge to learn new concepts and skills	Guided Discovery <ul style="list-style-type: none"> Recalling the concept of fraction as part of a whole using illustrations Leading the students to another way of writing fractions to introduce <i>decimals</i> Showing how to read and write decimals using a place value chart Explaining further the concept of tenths and hundredths using number line and money values 			
LESSON 2 <i>Fractions and Decimals</i>	M4NS-III-100 MELC Rename decimal numbers to fractions, and fractions whose denominators are factors of 10 and 100 to decimals	Critical Thinking Learning to find appropriate number to use when renaming fractions in tenths and hundredths	Review Renaming dissimilar fractions Demonstration <ul style="list-style-type: none"> Recalling the concept of equivalent fractions using cutouts Showing how to rename a fraction into an equivalent fraction with 10 or 100 as denominator Illustrating how to use division to find decimal equivalents for fractions 	Formative <ul style="list-style-type: none"> Written exercise Think-Pair-Share Problem solving 	<ul style="list-style-type: none"> Valuing the importance of sharing Being accurate Being creative 	cutouts showing different fractions
LESSON 3 <i>Place Value of Decimals</i>	M4NS-III-101.1 MELC Give the place value and the value of a digit	Literacy and Numeracy Identifying the place value and value of digits	Drill and Practice Reading decimal numbers using flash cards	Formative <ul style="list-style-type: none"> Written exercise Think-Pair-Share Problem solving 	<ul style="list-style-type: none"> Being accurate Valuing the importance of teamwork Being persistent in pursuing an activity in 	<ul style="list-style-type: none"> flash cards place value chart

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	of a given decimal number through hundredths	in decimal numbers Collaboration Working in pairs in activities	Discussion <ul style="list-style-type: none"> • Recalling the place value of digits in whole numbers • Introducing the decimal places using a place value chart • Pointing out how the decimal point separates the whole from the decimal part • Having the students read and write mixed decimals and identify the place value of each digit • Emphasizing how to obtain the value of each digit • Showing how to write decimals in expanded form 		order to arrive at a useful result	
LESSON 4 <i>Reading and Writing Decimals</i>	M4NS-IIj-102.1 MELC Read and write decimal numbers through hundredths	Literacy and Numeracy Reading and writing decimals and mixed decimals	Review Recalling important concepts related to place value Discussion <ul style="list-style-type: none"> • Letting volunteer students represent fractions using decimal squares • Writing the decimal form of the fraction using a place value chart • Pointing out how zero is used as a placeholder 	Formative <ul style="list-style-type: none"> • Oral and written exercises • Think-Pair-Share • Problem solving • Homework 	<ul style="list-style-type: none"> • Being diligent • Being precise 	<ul style="list-style-type: none"> • decimal squares for tenths and hundredths • place value chart

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			<ul style="list-style-type: none"> Emphasizing that the decimal point is read as “and” Giving several examples of reading and writing decimals in words and in figures 			
LESSON 5 <i>Rounding Off Decimals</i>	M4NS-IIj-103.1 MELC Round decimal numbers to the nearest whole number and tenth	Communication Expressing own ideas clearly Literacy and Numeracy Rounding off decimal numbers	Review Reading and writing decimals and mixed decimals Discussion <ul style="list-style-type: none"> Having the students round a whole number to the nearest ten using a number line Introducing how to round off decimals using the same approach Pointing out that the rules for rounding whole numbers apply for rounding decimals Giving more examples 	Formative <ul style="list-style-type: none"> Written exercise Homework 	<ul style="list-style-type: none"> Having perseverance in completing one’s task Being accurate 	number lines
LESSON 6 <i>Comparing and Ordering Decimals</i>	M4NS-IIj-104.1 MELC Compare and arrange decimal numbers	Literacy and Numeracy Comparing and arranging decimal numbers Critical Thinking Applying past experiences/ knowledge in dealing with present	Review Identifying the place value of digits in decimal numbers Pictorial to Abstract Method <ul style="list-style-type: none"> Showing how to compare decimals using grids and 	Formative <ul style="list-style-type: none"> Written exercise Think-Pair-Share Summative <ul style="list-style-type: none"> Written exercise Problem solving 	<ul style="list-style-type: none"> Being accurate Valuing the importance of teamwork Being diligent 	<ul style="list-style-type: none"> grid number line

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		situations	<p>number lines</p> <ul style="list-style-type: none"> • Having the students note the symbols used when comparing numbers • Emphasizing that as with whole numbers, the leftmost digits in decimals are compared first • Giving more examples including mixed decimals <p>Discussion</p> <ul style="list-style-type: none"> • Leading the students to use skills in comparing to order decimals • Pointing out that expressing decimals with the same number of decimal places makes ordering easier 		
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3rd Quarter

Chapter 6: Geometry		Time Frame: 10 days	
Content Standard	The learner demonstrates understanding of the concepts of parallel and perpendicular lines, angles, triangles, and quadrilaterals.	Performance Standard	The learner is able to construct and describe parallel and perpendicular lines, angles, triangles, and quadrilaterals in designs, drawings, and models.

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Content	K to 12 Learning Competencies** (MELCs included)	21st-Century Skills	Teaching Strategies/ Differentiated Instruction	Assessment	Values Integration	Resources
LESSON 1 <i>Kinds of Lines</i>	<p>M4GE-IIIa-12.2 MELC Describe and illustrate parallel, intersecting, and perpendicular lines</p> <p>M4GE-IIIa-12.3 MELC Draw perpendicular and parallel lines using a ruler and a set square</p> <p>MELC Describe and draw parallel, intersecting, and perpendicular lines using ruler and set square</p>	<p>Literacy and Numeracy Identifying and describing the kinds of lines</p> <p>Creativity Learning to illustrate the different kinds of lines</p>	<p>Review Conducting a review on lines</p> <p>Discussion</p> <ul style="list-style-type: none"> • Tracing objects on the board to introduce parallel and perpendicular lines • Asking students to look for representations of such lines in the classroom • Showing how the lines are written in symbols • Explaining what intersecting lines are using an improvised street map 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Hands-on activity • Homework 	<ul style="list-style-type: none"> • Having accuracy • Being cooperative • Being helpful 	<p>objects used in drawing lines – ruler, set square, road maps (improvised or real)</p>
LESSON 2 <i>Rays and Angles</i>	<p>M4GE-IIIb-14 MELC Describe and illustrate different angles (right, acute, and obtuse) using models</p> <p><i>Identify parts of an angle</i></p>	<p>Literacy and Numeracy Describing the different kinds of angles (acute, right, and obtuse)</p> <p>Creativity Illustrating the kinds of angles using different objects</p>	<p>Review Naming rays</p> <p>Discussion</p> <ul style="list-style-type: none"> • Defining <i>angle</i> and explaining its parts • Pointing out how an angle can be named in different ways 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Hands-on activity 	<ul style="list-style-type: none"> • Appreciating the role played by geometry in one's surroundings • Being diligent 	<ul style="list-style-type: none"> • real and improvised protractor • envelope • geostrips

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	<i>Name angles using notations such as $\angle ABC$, $\angle X$, and $\angle 2$</i>		Use of Manipulatives <ul style="list-style-type: none"> • Illustrating different kinds of angles using geostrips and an envelope • Pointing out that the size of an angle depends on the amount of its opening • Letting the students use a protractor to find the measurement of angles 			
LESSON 3 <i>Triangles and Quadrilaterals as Polygons</i>	M4GE-IIIb-15 MELC Describe the attributes/properties of triangles and quadrilaterals using concrete objects or models	Curiosity Learning to scrutinize the properties/attributes common to certain objects presented Creativity Learning to visualize and appreciate geometry in one's surrounding	Drill and Practice Identifying the kinds of angles Discussion <ul style="list-style-type: none"> • Introducing the term <i>polygon</i> and having students identify objects that suggest polygons • Showing cutouts of plane figures and having volunteer students group them according to number of sides • Explaining what quadrilaterals are • Discussing with the students the attributes of triangles and quadrilaterals 	Formative <ul style="list-style-type: none"> • Written exercise • Hands-on activity 	<ul style="list-style-type: none"> • Appreciating orderliness and beauty of the environment • Having accuracy 	cutouts of plane figures
LESSON 4 <i>Triangles</i>	M4GE-IIIc-16 MELC Identify and describe triangles according to	Literacy and Numeracy Describing and identifying the kinds of	Review Identifying plane figures and polygons	Formative <ul style="list-style-type: none"> • Written exercise • Homework • Hands-on activity 	<ul style="list-style-type: none"> • Having accuracy • Being creative • Valuing the importance of teamwork 	<ul style="list-style-type: none"> • cutouts of triangles • magnetic board

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	sides and angles	triangles according to sides and angles Collaboration Working in pairs in activities	Discussion <ul style="list-style-type: none"> Letting the students name the different parts of a triangle Discussing with the students the kinds of triangles according to sides and angles using cutouts Having students compare the attributes of the triangles 	<ul style="list-style-type: none"> Problem solving 		
LESSON 5 <i>Quadrilaterals</i>	<p>M4GE-IIIc-17 MELC Identify and describe the different kinds of quadrilaterals: square, rectangle, parallelogram, trapezoid, and rhombus</p> <p>M4GE-III d-18.1 MELC Relate triangles to quadrilaterals</p> <p>M4GE-III d-18.2 MELC Relate one quadrilateral to another quadrilateral (e.g., square to rhombus)</p>	<p>Critical Thinking</p> <ul style="list-style-type: none"> Learning to differentiate one quadrilateral from another Learning to relate one quadrilateral to another Learning to relate triangles to quadrilaterals <p>Collaboration Learning to share one's knowledge and skills with others</p>	<p>Drill and Practice Identifying the kinds of angles</p> <p>Review Recalling the different geometric figures</p> <p>Discussion</p> <ul style="list-style-type: none"> Having the students explain the similarities and differences between squares and rectangles using real objects Presenting the term <i>quadrilateral</i> and its meaning Having the students identify its parts Discussing with the students the different quadrilaterals using cutouts Asking students to give examples of 	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Hands-on activity <p>Summative</p> <ul style="list-style-type: none"> Written exercise Hands-on activity 	<ul style="list-style-type: none"> Following instructions carefully Observing neatness in one's work 	<ul style="list-style-type: none"> objects that suggest quadrilaterals cutouts of quadrilaterals

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			objects that suggest quadrilaterals		
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Chapter 7: Patterns and Algebra		Time Frame: 4 days	
Content Standard	The learner demonstrates understanding of concepts of continuous and repeating patterns and number sentences.	Performance Standard	The learner is able to identify the missing element in a pattern and number sentence.

Content	K to 12 Learning Competencies** (MELCs included)	21st-Century Skills	Teaching Strategies/ Differentiated Instruction	Assessment	Values Integration	Resources
LESSON 1 <i>Patterns in Number Sequence</i>	M4AL-IIIe-5 MELC Determine the missing term/s in a sequence of numbers (e.g., odd numbers, even numbers, multiples of a number, factors of a number, etc.)	Critical Thinking Analyzing a given sequence to find the rule and identify the next terms Collaboration Working in pairs in activities	Review Conducting a review on skip counting Guided Learning <ul style="list-style-type: none"> • Defining <i>number sequence</i> or <i>number series</i> • Guiding the students to create a table to complete a number sequence • Leading the students to define <i>pattern</i> as the rule that governs a sequence • Pointing out how rules help in finding the next term in a sequence • Providing more examples 	Formative <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Being diligent and persevering in performing one's tasks • Having accuracy 	(none)

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<p>LESSON 2 <i>Solving Equations</i></p>	<p>M4AL-IIIe-13 MELC Find the missing number in an equation involving properties of operations</p>	<p>Critical Thinking Learning to discover how a missing value may be replaced by a number to make an equation true</p> <p>Collaboration Sharing one's skills and knowledge with others</p>	<p>Review Recalling the relationship between addition and subtraction, and multiplication and division using fact triangles</p> <p>Guided Learning</p> <ul style="list-style-type: none"> • Giving examples to have the students recall the opposites of the basic operations • Defining <i>equation</i> and having students recognize how to represent unknown values in an equation • Leading the students to apply previously learned knowledge to solve for the unknown values • Providing several examples 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Homework • Think-Pair-Share • Problem solving <p>Summative</p> <ul style="list-style-type: none"> • Written exercise • Problem solving 	<ul style="list-style-type: none"> • Listening attentively for understanding of the concept • Having accuracy • Having perseverance 	<ul style="list-style-type: none"> • fact triangles • perception cards containing equations with a missing value
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Chapter 8: Measurement		Time Frame: 12 days	
Content Standard	The learner demonstrates understanding of the concept of time, perimeter, area, and volume.	Performance Standard	The learner is able to apply the concepts of time, perimeter, area, and volume to mathematical problems and real-life situations.

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Content	K to 12 Learning Competencies** (MELCs included)	21st-Century Skills	Teaching Strategies/ Differentiated Instruction	Assessment	Values Integration	Resources
LESSON 1 <i>Measuring Elapsed Time</i>	M4ME-III-f-11 MELC Find the elapsed time in minutes and seconds M4ME-III-f-12 MELC Estimate the duration of time in minutes	Literacy and Numeracy Applying the skills on basic operations in finding the elapsed time	Review Recalling different time equivalence Guided Learning <ul style="list-style-type: none"> • Having students talk about their own birthday party and how long it lasted using a picture • Leading the students to understand the meaning of <i>elapsed time</i> • Guiding the students in finding the solution to problems using algorithms and clock models • Letting the students study a problem that involves estimating elapsed time • Giving more examples as needed 	Formative <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Observing punctuality • Having precision • Valuing the importance of teamwork 	<ul style="list-style-type: none"> • picture of children at a birthday party • clock model
LESSON 2 <i>Problems Involving Elapsed Time</i>	M4ME-III-g-13 MELC Solve problems involving elapsed time	Critical Thinking Analyzing a problem carefully to arrive at the correct solution Collaboration Working in pairs in activities	Review Finding elapsed time Guided Learning <ul style="list-style-type: none"> • Working out the solution to a word problem cooperatively with the class • Asking 	Formative <ul style="list-style-type: none"> • Problem solving • Think-Pair-Share • Homework 	<ul style="list-style-type: none"> • Listening attentively to the discussion • Being cooperative • Having accuracy 	(none)

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			<p>comprehension questions to have the students understand the problem</p> <ul style="list-style-type: none"> • Reminding the students to always write the complete answer • Giving more examples to help the students practice their skills 			
<p>LESSON 3 Perimeter of Polygons</p>	<p>M4ME-IIIg-48 MELC Visualize the perimeter of any given plane figure in different situations</p> <p>M4ME-IIIh-49 MELC Measure the perimeter of any given figure using appropriate tools</p> <p>M4ME-IIIh-50 MELC Derive the formula for perimeter of any given figure</p> <p>M4ME-IIIi-51 MELC Find the perimeter of triangles, squares, rectangles, parallelograms, and trapezoids</p>	<p>Communication Expressing own ideas clearly</p> <p>Collaboration Working harmoniously with peers in activities</p> <p>Literacy and Numeracy Finding perimeter of polygons</p>	<p>Drill and Practice Adding several one-digit numbers using flash cards</p> <p>Review Recalling different shapes the students have learned</p> <p>Discussion</p> <ul style="list-style-type: none"> • Introducing <i>perimeter</i> as the distance around a polygon • Having students trace the perimeter of some shapes with their fingers • Leading the students to find a shorter way of getting the perimeter of polygons using formula <p>Cooperative Learning</p> <ul style="list-style-type: none"> • Dividing the class into small groups and 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Homework • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Following directions carefully • Valuing the importance of teamwork • Having accuracy 	<ul style="list-style-type: none"> • flash cards • cutouts of various shapes • piece of string or straw

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			<p>distributing pieces of string and polygon cutouts to each group</p> <ul style="list-style-type: none"> • Assigning each to find the perimeter of objects found in the classroom using the string • Having each group measure the string to the nearest centimeter 			
<p>LESSON 4 <i>Problems Involving Perimeter</i></p>	<p>M4ME-IIIi-52 MELC Solve routine and nonroutine problems in real-life situations involving perimeter of squares and rectangles, triangles, parallelograms, and trapezoids</p>	<p>Creativity Discovering and applying other strategies in solving problems</p> <p>Problem Solving Learning to analyze and understand problems carefully to arrive at a correct solution</p> <p>Collaboration Working harmoniously with peers in activities</p>	<p>Review Identifying the polygon that matches the formula for finding its perimeter</p> <p>Discussion</p> <ul style="list-style-type: none"> • Having the students explain in their own words the four-step plan in solving word problems • Letting the students apply such plan in finding the answers to word problems • Emphasizing the importance of checking if the obtained answers are correct 	<p>Formative</p> <ul style="list-style-type: none"> • Problem solving • Think-Pair-Share • Group activity 	<ul style="list-style-type: none"> • Having accuracy • Being diligent • Being cooperative 	<p>chart containing the formulas for perimeter of different polygons</p>
<p>LESSON 5 <i>Perimeter and Area</i></p>	<p>M4ME-IIIj-53 MELC Differentiate perimeter from area</p>	<p>Critical Thinking Understanding the difference between area and perimeter</p>	<p>Individual Activity</p> <ul style="list-style-type: none"> • Having the students draw a representation of a garden on a centimeter grid • Eliciting from the 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving • Homework 	<ul style="list-style-type: none"> • Learning how to make wise decisions • Having accuracy • Having perseverance 	<ul style="list-style-type: none"> • ruler • centimeter grid

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		<p>Collaboration Working in pairs in activities</p>	<p>students the perimeter of the garden</p> <ul style="list-style-type: none"> Letting the students recall what <i>area</i> means and count the number of squares that cover the garden <p>Guided Learning</p> <ul style="list-style-type: none"> Presenting a problem involving perimeter and area Leading the students to observe that some figures may have the same perimeter but different areas Providing more examples to have the students emphasize the difference between area and perimeter 			
<p>LESSON 6 <i>Units of Square Measure</i></p>	<p>M4ME-IIIj-54 MELC Convert sq. cm to sq. m and vice versa</p>	<p>Literacy and Numeracy Converting square units of measure</p> <p>Critical Thinking Learning when to divide or multiply when converting square units of measure</p>	<p>Drill and Practice Converting linear units of measures</p> <p>Review Finding the perimeter of regular polygons</p> <p>Guided Discovery</p> <ul style="list-style-type: none"> Leading the students to observe equivalence between square measures using square grids Showing how to 	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Think-Pair-Share Homework Problem solving 	<ul style="list-style-type: none"> Having accuracy Valuing the importance of teamwork 	<ul style="list-style-type: none"> square grid chart containing table of square measures

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			convert from a smaller to bigger unit and vice versa <ul style="list-style-type: none"> • Providing several examples 		
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**Boldfaced text in some competencies mean that only those parts are developed in that particular lesson. The rest are developed in the next or other lessons in the chapter/book. Italicized text under *K to 12 Learning Competencies* are add-on competencies.

4th Quarter

Chapter 8: Measurement (continuation)		Time Frame: 24 days	
Content Standard	The learner demonstrates understanding of the concept of time, perimeter, area, and volume.	Performance Standard	The learner is able to apply the concepts of time, perimeter, area, and volume to mathematical problems and real-life situations.

Content	K to 12 Learning Competencies** (MELCs included)	21st-Century Skills	Teaching Strategies/ Differentiated Instruction	Assessment	Values Integration	Resources
LESSON 7 <i>Area of Irregular Figures</i>	M4ME-IVa-55 Find the area of irregular figures made up of squares and rectangles using sq. cm and sq. m	Creativity Learning to think creatively to divide into regions or complete an irregular figure Literacy and Numeracy Finding areas of irregular figures	Review <ul style="list-style-type: none"> • Finding the perimeter of polygons • Recalling the difference between area and perimeter Guided Learning <ul style="list-style-type: none"> • Showing a cutout and explaining what an irregular figure is • Leading the students to observe that an irregular figure can be formed by common polygons 	Formative <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving • Homework 	<ul style="list-style-type: none"> • Being creative • Having accuracy • Being cooperative 	cutouts of irregular figures

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			<ul style="list-style-type: none"> Guiding the students to find the area of an irregular figure in two ways Giving more examples 			
LESSON 8 <i>Estimating the Area of Irregular Figures</i>	M4ME-IVa-56 MELC Estimate the area of irregular plane figures made up of squares and rectangles	Literacy and Numeracy Estimating area of irregular figures Collaboration Working in pairs in activities	Review Finding the perimeter of irregular shapes Guided Learning <ul style="list-style-type: none"> Leading the students to differentiate perimeter from area using cutouts Guiding the students in estimating the area of an irregular figure by counting the number of square units Providing more examples Emphasizing the use of the word “about” in stating the answer 	Formative <ul style="list-style-type: none"> Written exercise Think-Pair-Share Problem solving 	<ul style="list-style-type: none"> Following instructions properly Being diligent 	<ul style="list-style-type: none"> cutouts of irregular figures grid
LESSON 9 <i>Area of a Parallelogram</i>	M4ME-IVb-57 MELC Derive the formulas for the area of triangles, parallelograms , and trapezoids M4ME-IVb-58 MELC Find the area of triangles, parallelograms , and trapezoids using sq. cm and sq. m	Critical Thinking Learning to understand how a rectangle is related to a parallelogram Literacy and Numeracy Finding the area of parallelograms	Drill and Practice Practicing basic multiplication facts using flash cards Review Finding the area of rectangles Guided Discovery <ul style="list-style-type: none"> Leading the students to find the area of a parallelogram using 	Formative <ul style="list-style-type: none"> Written exercise Homework Think-Pair-Share Problem solving 	<ul style="list-style-type: none"> Being creative Having precision Valuing the importance of teamwork 	<ul style="list-style-type: none"> flash cards cutout of a rectangle pair of scissors

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			<p>cutout of a rectangle</p> <ul style="list-style-type: none"> • Guiding the students to observe that the areas of the rectangle and parallelogram formed are the same • Pointing out how to derive the formula for the area of a parallelogram • Having the students study examples of using the formula 			
<p>LESSON 10 <i>Area of a Triangle</i></p>	<p>M4ME-IVb-57 MELC Derive the formulas for the area of triangles, parallelograms, and trapezoids</p> <p>M4ME-IVb-58 MELC Find the area of triangles, parallelograms, and trapezoids using sq. cm and sq. m</p>	<p>Critical Thinking Learning to understand how a triangle is related to a parallelogram</p> <p>Literacy and Numeracy Finding the area of triangles</p>	<p>Review Finding the area of parallelograms</p> <p>Drill and Practice Multiplying numbers by $\frac{1}{2}$</p> <p>Guided Discovery</p> <ul style="list-style-type: none"> • Showing cutouts of a parallelogram and having the students identify its dimensions • Drawing a diagonal and leading the students to note the relationship between the triangles formed and the parallelogram • Guiding the students to derive the formula for the area of the triangles • Giving examples to have the students use the formula 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Being creative • Having accuracy • Being cooperative 	<p>cutout of a parallelogram</p>

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<p>LESSON 11 <i>Area of a Trapezoid</i></p>	<p>M4ME-IVb-57 MELC Derive the formulas for the area of triangles, parallelograms, and trapezoids</p> <p>M4ME-IVb-58 MELC Find the area of triangles, parallelograms, and trapezoids using sq. cm and sq. m</p>	<p>Communication Expressing own ideas clearly</p> <p>Critical Thinking Demonstrating how two congruent trapezoids make up a parallelogram</p> <p>Literacy and Numeracy Finding the area of trapezoids</p>	<p>Review Identifying and describing quadrilaterals</p> <p>Guided Discovery</p> <ul style="list-style-type: none"> • Describing the attributes of trapezoids using various models • Leading the students to derive the formula for the area of a trapezoid using cutouts of two congruent trapezoids • Having the students use the formula to solve given problems 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Homework • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Being creative • Having accuracy • Having perseverance 	<p>cutouts or models of plane figures</p>
<p>LESSON 12 <i>Estimating the Area of Triangles, Parallelograms, and Trapezoids</i></p>	<p>M4ME-IVc-59 MELC Estimate the area of triangles, parallelograms, and trapezoids</p>	<p>Literacy and Numeracy Estimating area of triangles, parallelograms, and trapezoids</p> <p>Collaboration Sharing one's knowledge and skills with others</p>	<p>Review Estimating the area of irregular figures</p> <p>Discussion</p> <ul style="list-style-type: none"> • Having the students study how to estimate the area of a triangle • Leading the students to note how each square unit in the figure is counted • Providing other examples involving parallelograms and trapezoids 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Being diligent • Following instructions properly 	<p>cutouts of polygons and irregular figures</p>
<p>LESSON 13 <i>Problems About Area</i></p>	<p>M4ME-IVc-60 MELC Solve routine and nonroutine problems</p>	<p>Initiative Learning to lead and initiate actions that will contribute to the</p>	<p>Review Identifying the polygon that matches the formula for finding the</p>	<p>Formative</p> <ul style="list-style-type: none"> • Problem solving • Think-Pair-Share • Homework 	<ul style="list-style-type: none"> • Appreciating and preserving a clean and beautiful environment 	<p>chart containing the formula for area and perimeter of different polygons</p>

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	involving area of squares, rectangles, triangles, parallelograms, and trapezoids	<p>betterment of society</p> <p>Problem Solving Learning to analyze and understand problems carefully to arrive at a correct solution</p> <p>Collaboration Working in pairs in activities</p>	<p>perimeter and area</p> <p>Discussion</p> <ul style="list-style-type: none"> Recalling the four-step plan in problem solving Having the students explain in their own words what each step entails Emphasizing the appropriate units to use when stating the answer Having the students solve word problems involving area of polygons 		<ul style="list-style-type: none"> Having accuracy Valuing the importance of teamwork 	
<p>LESSON 14 <i>Creating Problems About Perimeter and Area of Polygons</i></p>	<p>M4ME-IVd-61 MELC Create problems (with reasonable answers) involving perimeter and area involving squares, rectangles, triangles, parallelograms, and trapezoids</p>	<p>Problem solving Applying the four-step plan in solving problems</p> <p>Critical Thinking Analyzing the given situation and facts to create word problems</p>	<p>Review Recalling the different steps to follow in solving problems</p> <p>Discussion</p> <ul style="list-style-type: none"> Presenting a situation and leading the students to think of good questions to ask Having the students study the steps in creating word problems Calling on volunteer students to share word problems they have created Providing more examples 	<p>Formative</p> <ul style="list-style-type: none"> Written exercise Think-Pair-Share Problem solving 	<ul style="list-style-type: none"> Being cooperative with one another in working out the task at hand Being creative Being patient 	(none)

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<p>LESSON 15 <i>Volume</i></p>	<p>M4ME-IVd-62 MELC Visualize the volume of solid figures in different situations using nonstandard (e.g., marbles, etc.) and standard units</p>	<p>Critical Thinking Learning to understand the concept of volume</p> <p>Collaboration Working in pairs in activities</p>	<p>Motivation Differentiating plane from space figures using real objects</p> <p>Guided Discovery</p> <ul style="list-style-type: none"> • Having the students fill two boxes of the same size with marbles and cubes to lead them to the concept of volume • Defining <i>cubic unit</i> as the most suitable measure of volume • Showing a drawing of boxes and having the students count the number of cubic units in each box • Letting students build or draw rectangular prisms using unit cubes 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Homework • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Being creative • Being diligent • Having perseverance 	<ul style="list-style-type: none"> • balls • boxes • cubes • marbles • drawings of prisms in cubic units
<p>LESSON 16 <i>Volume of Rectangular Prisms</i></p>	<p>M4ME-IVe-63 MELC Derive the formula for the volume of rectangular prisms</p> <p>M4ME-IVe-64 MELC Find the volume of a rectangular prism using cu. cm and cu. m</p>	<p>Communication Expressing own ideas clearly</p> <p>Literacy and Numeracy Finding volume of rectangular prisms</p>	<p>Review</p> <ul style="list-style-type: none"> • Finding the area of a rectangle • Recalling the dimensions of three-dimensional objects and unit for measuring volume <p>Guided Discovery</p> <ul style="list-style-type: none"> • Describing the volume of a box using unit cubes • Bringing out the cubes from the box 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Homework • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Being creative • Having accuracy • Valuing the importance of teamwork 	<ul style="list-style-type: none"> • box • unit cubes

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			<p>and letting the students count the number of cubes along each dimension of the box</p> <ul style="list-style-type: none"> • Leading the students to derive the formula for finding the volume of a rectangular prism • Giving more examples 			
<p>LESSON 17 <i>Word Problems About Volume</i></p>	<p>M4ME-IVf-65 MELC Solve routine and nonroutine problems involving the volume of a rectangular prism</p>	<p>Problem Solving Applying the 4-step plan in solving word problems</p> <p>Collaboration Working in pairs in activities</p>	<p>Drill and Practice Multiplying one- or two-digit numbers</p> <p>Review Finding the volume of rectangular prisms</p> <p>Discussion</p> <ul style="list-style-type: none"> • Presenting problems and discussing how to understand them well • Emphasizing the appropriate unit of measure to use when expressing the answer about volume • Working out solutions cooperatively with the class • Reminding the students to verify the answers 	<p>Formative</p> <ul style="list-style-type: none"> • Problem solving • Think-Pair-Share 	<ul style="list-style-type: none"> • Being attentive in doing one's work • Having accuracy • Having perseverance 	(none)
<p>LESSON 18 <i>Creating Problems Involving the Volume of a Rectangular Prism</i></p>	<p>M4ME-IVf-66 MELC Create problems (with reasonable answers) involving volume of rectangular prism</p>	<p>Critical Thinking Analyzing a given situation and facts to create a word problem</p>	<p>Review</p> <ul style="list-style-type: none"> • Finding the volume of rectangular prism • Recalling the dimensions of a three-dimensional 	<p>Formative</p> <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Being cooperative while working with a group • Being accurate • Being diligent 	(none)

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		Problem Solving Applying appropriate strategy to find the solution to word problems	figure Discussion <ul style="list-style-type: none"> • Talking about the facts stated in a given situation • Recalling the pointers in creating word problems • Guiding the students to think of good questions to ask • Having the students apply the four-step plan in solving the problem they created • Pointing out the importance of checking if the obtained answers are correct 	Summative <ul style="list-style-type: none"> • Written exercise • Problem solving 		
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Chapter 9: Tables, Graphs, and Probability		Time Frame: 12 days	
Content Standard	The learner demonstrates understanding of the concepts of bar graphs and simple experiments.	Performance Standard	The learner is able to create and interpret simple representations of data (tables and bar graphs) and describe outcomes in simple experiments.

Content	K to 12 Learning Competencies** (MELCs included)	21st-Century Skills	Teaching Strategies/ Differentiated Instruction	Assessment	Values Integration	Resources
LESSON 1 <i>Collecting and Organizing Data</i>	M4SP-IVg-1.4 MELC Collect data on two variables using any	Creativity Learning to present gathered data effectively	Motivation <ul style="list-style-type: none"> • Letting the students share about their favorite things 	Formative <ul style="list-style-type: none"> • Written exercise • Group work • Hands-on activity 	<ul style="list-style-type: none"> • Being cooperative and in harmony when working together • Having accuracy 	picture of cartoon characters

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	<p>source</p> <p>M4SP-IVg-2.4 MELC Organize data in tabular form and present them in a single/double horizontal or vertical bar graph</p>	<p>Collaboration Working harmoniously with peers</p>	<ul style="list-style-type: none"> Showing pictures of cartoon characters and making tallies for the students' choices <p>Guided Learning</p> <ul style="list-style-type: none"> Presenting a situation and pointing out how data can be gathered from existing records Explaining how to make a table and double bar graph to show collected data Describing what a <i>double bar graph</i> is and discussing its parts Leading the students to make inferences from the graph Providing other examples involving survey and horizontal bar graph 		<ul style="list-style-type: none"> Having perseverance 	
<p>LESSON 2 <i>Interpreting Bar Graphs</i></p>	<p>M4SP-IVg-3.4 MELC Interpret data presented in different kinds of bar graphs (vertical/horizontal, single/double bars)</p> <p>M4SP-IVh-5.4 MELC Draw inferences based on data presented in a double-bar graph</p>	<p>Critical Thinking Learning how to analyze and interpret different types of bar graphs</p>	<p>Review Recalling the different kinds of bar graphs</p> <p>Discussion</p> <ul style="list-style-type: none"> Explaining the importance of bar graphs Presenting a vertical bar graph and asking questions to have the students draw inferences from the graph 	<p>Formative Written exercise</p>	<p>Having accuracy when interpreting information reflected in bar graphs</p>	<p>samples of vertical and horizontal bar graphs</p>

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			<ul style="list-style-type: none"> • Showing a horizontal bar graph and having students differentiate it from the first graph • Asking questions to have the students interpret the graph 			
LESSON 3 <i>Problem Solving Involving Bar Graphs</i>	M4SP-IVh-4.4 MELC Solve routine and nonroutine problems using data presented in a single or double-bar graph	Collaboration Learning to share one's ideas/ abilities in performing a task or attaining a goal Critical Thinking Learning to interpret data in bar graphs to be able to solve word problems	Review Finding the average of a set of numbers Discussion <ul style="list-style-type: none"> • Letting the students analyze and solve given word problems using the four-step plan • Reminding the students to give a complete answer • Giving more examples as needed 	Formative <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share • Problem solving 	<ul style="list-style-type: none"> • Appreciating the usefulness of graphs • Valuing the importance of teamwork 	(none)
LESSON 4 <i>Gathering and Recording Outcomes</i>	M4SP-IVi-9 MELC Record favorable outcomes in a simple experiment (e.g., tossing a coin, spinning a wheel, etc.) M4SP-IVi-10 MELC Express the outcome in a simple experiment in words, symbols, tables, or graphs	Critical Thinking Learning how to record the outcomes of experiments with utmost care Collaboration Working in pairs in activities	Review Recalling how a table is used to organize data Demonstration <ul style="list-style-type: none"> • Performing simple experiments to introduce probability • Explaining the possible outcomes of each experiment • Showing how to record the outcomes using words and figures in a table 	Formative <ul style="list-style-type: none"> • Written exercise • Think-Pair-Share 	<ul style="list-style-type: none"> • Having accuracy when doing any required task • Being cooperative 	<ul style="list-style-type: none"> • cards labeled A, B, and C • coins • spinner

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	M4SP-IVi-11 MELC Explain the outcomes in an experiment					
LESSON 5 <i>Problems Involving Simple Experiments</i>	M4SP-IVj-12 MELC Solves routine and nonroutine problems involving a simple experiment	Critical Thinking Applying the formula to find the probability of an outcome Collaboration Sharing one's knowledge and skills with others	Review Conducting a review on simple experiments Discussion <ul style="list-style-type: none"> Introducing the concept of <i>probability</i> and its formula Letting the students recall the four-step plan and pointing out what each step entails Asking comprehension questions to have the students understand a given problem Solving problems cooperatively with the students Tackling other examples 	Formative <ul style="list-style-type: none"> Written exercise Think-Pair-Share 	<ul style="list-style-type: none"> Having accuracy when conducting any task needed to be done Being persistent 	materials for performing simple experiments
LESSON 6 <i>Creating Problems Involving Simple Experiments</i>	M4SP-IVj-13 MELC Create problems involving a simple experiment	Critical Thinking Analyzing given situations and facts to be able to create own word problems Problem Solving Applying appropriate strategies to find the solution to word problems	Review Finding the probability of an outcome using the formula Discussion <ul style="list-style-type: none"> Recalling the pointers in creating word problems Guiding the students in thinking of good questions to ask about 	Formative <ul style="list-style-type: none"> Written exercise Think-Pair-Share Problem solving Summative <ul style="list-style-type: none"> Written exercise Problem solving Hand-on activity 	<ul style="list-style-type: none"> Being cooperative while doing the assigned tasks Being creative Being patient 	perception cards containing pointers in creating word problems



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			<p>a given situation</p> <ul style="list-style-type: none">• Solving created problems cooperatively with the class• Providing more examples for better understanding			
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