



ST Math
Texas

TEKS Alignment

ST Math Workbooks



MIND
EDUCATION®

Grade K

Content Overview

Topic 1 (Discovering Addition and Subtraction) introduces students to addition and subtraction through active situations in which they add to or remove objects from a set and represent the scenario with symbolic equations. Building on students' developing understanding of counting, cardinality, and part-total relationships, this topic helps students move from concrete experiences to symbolic representation. In **Topic 3 (Exploring Parts and Totals)**, students extend their addition and subtraction understanding to part-part-total situations.

Topic 2 (Discovering Shapes) introduces students to the realm of geometry. Students apply their thinking about parts and totals to shapes and use similar language to describe and compare attributes. **Topic 4 (Discovering Number Structure)** extends this thinking further as students explore the importance of 10 in the number system and investigate the structure of numbers beyond 10.

The final three Topics of the course provide avenues for synthesizing learning, consolidating skills, and building fluency with symbolic representations through relevant contextual opportunities. **Topic 5 (Discovering Data)** utilizes data contexts for a wide variety of problem-solving combined with interpretation of the mathematics in context. **Topic 6 (Discovering Financial Literacy)** provides students with opportunities to think about numbers in the context of money in society. Finally, **Topic 7 (Building Number Sense and Fluency)** provides time for students to build procedural fluency with symbolic comparison, addition, and subtraction.

	Count Sequence	Counting Objects	Count Out	Counting Back	Counting On from Any Number	Skip Counting
Topic 1	1–40	up to 20 objects in structured arrangements		from 20 or any number within 20	within 40	
Topic 2	1–60	up to 20 objects in structured or random arrangements		from 20 or any number within 20	within 60	
Topic 3	1–60	up to 20 objects in structured or random arrangements		from 40 or any number within 40	within 60	
Topic 4	1–100	up to 20 objects in structured or random arrangements	up to 20 objects	from 100 or any number within 60	within 60	by 10 to 100
Topic 5	1–100	up to 20 objects in structured or random arrangements	up to 20 objects	from 100 or any number within 60	within 100	by 10 to 100
Topic 6	1–100	up to 20 objects in structured or random arrangements	up to 20 objects	from 100 or any number within 100	within 100	by 10 to 100
Topic 7	1–100	up to 20 objects in structured or random arrangements	up to 20 objects	from 100 or any number within 100	within 100	by 10 to 100

Topic 1: Discovering Addition and Subtraction

ST Math Objectives: [Understanding Addition and Subtraction within 5](#), [Understanding Addition and Subtraction within 10](#), [Addition and Subtraction Facts within 5](#)

TEKS: K.1.A K.1.B K.1.C K.1.D K.1.E K.1.F K.1.G K.2.A K.2.B K.2.D K.2.F K.2.G K.2.H K.3.A K.3.B K.3.C K.5.A

ELPS: 1.B 1.C 1.E 2.B 2.C 2.D 2.E 2.F 3.A 3.F 4.F

Acting Out to Model Addition Within 10.....	7
Introducing the Plus Sign	8
Writing Equations to Model Addition Within 10	9
Modeling and Solving Active Addition Word Problems: Result Unknown	10
Using Number Paths to Add Within 10.....	11
Using Drawings to Model Addition Within 10	12
Using Concrete Objects to Model Subtraction Within 10.....	13
Introducing the Minus Sign.....	14
Writing Equations to Model Subtraction Within 10	15
Modeling and Solving Active Subtraction Word Problems: Result Unknown.....	16
Using Number Paths to Subtract Within 10.....	17
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Telling Active Addition and Subtraction Stories	22

Topic 2: Discovering Shapes

ST Math Objectives: [Exploring Shapes](#), [Composing Shapes](#), [Analyzing Shapes](#)

TEKS: K.1.A K.1.B K.1.C K.1.D K.1.E K.1.F K.1.G K.2.A K.2.B K.2.D K.3.C K.5.A K.6.A K.6.B K.6.C K.6.D K.6.E K.6.F K.7.A K.7.B K.8.A

ELPS: 1.A 1.B 1.C 1.D 1.F 2.B 2.C 2.D 2.E 2.F 3.A 3.F 3.G 3.H 4.D

Comparing Familiar Attributes of Objects	24
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Holding Objects to Directly Compare Weight.....	26
Filling and Pouring to Directly Compare Capacity	27
Sorting 2-D Shapes by Attributes	28
Sorting 2-D Shapes by Sides and Vertices	29
Identifying and Constructing Triangles.....	30
Identifying and Constructing Quadrilaterals	31
Identifying Rectangles and Squares	32
Constructing 2-D Shapes Based on Attributes.....	33
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Identifying Rectangular Prisms and Cubes.....	35
Identifying and Constructing Cylinders and Spheres.....	36
Identifying and Constructing Cones	37
Identifying 2-D and 3-D Shapes in the World.....	38

Topic 3: Exploring Parts and Totals

ST Math Objectives: [Making 10 and Number Pairs](#), [Understanding Addition and Subtraction within 10](#), [Greater Than, Less Than, Equal To](#)

TEKS: K.1.A K.1.B K.1.C K.1.D K.1.E K.1.F K.1.G K.2.A K.2.B K.2.C K.2.E K.2.F K.2.G K.2.I K.3.A K.3.B K.3.C K.5.A K.8.A

ELPS: 1.B 1.D 1.E 2.B 2.C 2.D 2.E 2.F 3.A 3.B 3.C 3.D 3.E 3.F 3.G 3.H 4.B 4.F

Writing Equations to Represent Part–Part–Total Relationships	40
Modeling Part–Part–Total Situations.....	41
Using 5 as a Benchmark to Add	42
Modeling and Solving Static Addition Word Problems: Total Unknown	43
Decomposing Totals with Concrete Objects	44
Decomposing Totals with Number Bonds and Equations.....	45
Decomposing Totals in Different Ways	46
Decomposing 10 in Different Ways.....	47
Using Number Bonds to Model Part–Part–Total Relationships..	48
Using Drawings and Equations to Model Part–Part–Total Subtraction Situations.....	49
Choosing Strategies to Solve Subtraction Problems.....	50
Composing Totals with Concrete Objects	51
Composing Totals with Number Bonds and Equations.....	52
Composing Totals in Different Ways.....	53
Choosing Models to Solve Addition and Subtraction Word Problems.....	54
Composing 10 in Different Ways	55
Composing and Decomposing Numbers to Solve Addition and Subtraction Word Problems.....	56

Topic 4: Discovering Number Structure

ST Math Objectives: [Foundations of Place Value](#), [Comparing Numbers](#), [Counting to 100 \(K\)](#)

TEKS: K.1.A K.1.B K.1.C K.1.D K.1.E K.1.F K.1.G K.2.A K.2.B K.2.C K.2.E K.2.F K.2.G K.2.H K.2.I K.5.A

ELPS: 1.A 1.B 1.E 2.A 2.C 2.D 2.E 2.F 3.C 3.H 4.C 4.F

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Representing Teen Numbers as a Group of 10 and Some More.....	59
Using Equations to Represent a Group of 10 and Some More	60
Using Number Bonds to Represent a Group of 10 and Some More	61
Interpreting Digits in a Teen Number.....	62
Composing and Decomposing Teen Numbers	63
Using Ten Frames and Number Bonds to Represent 10 and 20....	64
Counting by Groups of 10	65
Representing Numbers in Different Ways	70

Topic 5: Discovering Data

ST Math Objectives: [Sorting and Classifying](#), [Comparing Numbers](#), [Measurable Attributes](#)

TEKS: K.1.A K.1.B K.1.C K.1.D K.1.E K.1.F K.1.G K.2.A K.2.B K.2.C K.2.G K.2.H K.2.I K.3.C K.5.A K.6.E K.8.A K.8.B K.8.C

ELPS: 1.E 2.B 2.D 2.E 2.F 4.A

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Using Real-Object Graphs to Compare Data 73

Using Picture Graphs to Compare Data 74

Using Picture Graphs to Make Decisions 75

Using Tables and Picture Graphs to Display and Compare Data 76

Using Tables to Display Voting Data 77

Using Picture Graphs to Display Voting Data 78

Using a Generic Picture to Represent Voting Data 79

Using Data to Make Decisions in Complex Situations 80

Making Predictions About Data 81

Topic 6: Discovering Financial Literacy

ST Math Objectives: [Numbers and Objects to 10](#), [Comparing Numbers](#), [Greater Than, Less Than, Equal To](#)

TEKS: K.1.A K.1.E K.1.G K.2.C K.2.E K.2.G K.4.A K.8.A K.8.B K.8.C K.9.A K.9.B K.9.C K.9.D

ELPS: 2.A 3.A 3.B 3.C 3.D 3.E 3.H 4.A 4.C 4.D 4.F

Identifying U.S. Coins 83

Distinguishing Between Needs and Wants 84

Identifying Sources of Money 85

Exploring Types of Jobs 86

Exploring Skills Needed for Jobs 87

Topic 7: Building Number Sense and Fluency

ST Math Objectives: [Subitizing \(K\)](#), [Addition and Subtraction Facts within 5](#), [Counting on the Number Line](#)

TEKS: K.1.A K.1.B K.1.C K.1.D K.1.E K.1.F K.1.G K.2.B K.2.C K.2.D K.2.E K.2.F K.2.G K.2.H K.2.I K.3.A K.3.B K.3.C K.5.A K.6.A

ELPS: 1.B 1.C 1.F 2.E 2.F 3.A 3.H 4.B 4.C 4.F

Estimating, Counting, and Subitizing Quantities Within 20 ... 89

Comparing Quantities Represented in Different Ways 90

Generating Numbers Greater Than or Less Than Given Numbers 91

Fluently Adding Numbers Within 5 92

Fluently Subtracting Numbers Within 5 93

Recognizing and Generating Doubles Within 10 94

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Choosing and Comparing Addition and Subtraction Models. 98

Using Words, Number Bonds, and Equations to Represent Addition and Subtraction Situations 99

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Choosing Models to Represent an Addition Word Problem .. 101

Choosing Tools to Model and Solve Addition and Subtraction Word Problems..... 102

Writing and Solving Addition and Subtraction Word Problems.. 103

Choosing Strategies to Solve Addition and Subtraction Problems..... 104

Grade 1

Content Overview

Topic 1 (Adding and Subtracting Within 10) focuses on building strong schemas of addition and subtraction—and how they are connected—that are integral to approaching the content of subsequent Topics. Students explore physical and visual addition and subtraction situations, learning how to represent these situations symbolically, and act out symbolic representations in familiar contexts. As students progress into **Topic 2 (Building Approaches to Problem Solving)**, they explore a variety of ways to represent addition and subtraction situations more abstractly. Topic 2 also focuses on interpreting simple word problems, identifying parts and totals to create models, writing equations, and solving for unknowns.

In **Topic 3 (Comparing and Measuring Length)**, students first venture into the realm of measurement and the concept of continuity. The placement of this Topic allows students to spend more time building strong number sense within 10 while also developing a schema of length that supports the use of length models such as strip diagrams and bar-type graphs in subsequent Topics.

Place value concepts in this course are split between **Topic 4 (Exploring Place Value Within 120)** and **Topic 8 (Extending Place Value to 120)**. Topic 4 focuses on the base-10 structure of the number system, providing students with opportunities to see how groupings of 10 are integral in the number system and how those groupings relate to the way numerals are written. Later in the year, after students have had time to cement their understanding of tens and ones, Topic 8 challenges them to work with numbers more symbolically as they compare numbers and compose and decompose numbers into tens and ones based on the meaning of their digits. Students also come to understand that groupings of 10 continue as they explore a hundred as a Topic.

After developing a place value understanding of two-digit numbers, students extend their addition and subtraction strategies in **Topic 5 (Adding and Subtracting Within 20)**. While they continue to rely on strategies and models from Topics 1 and 2, their new understanding of the importance of 10 opens up the development of additional strategies centered on making a ten and relying on number pairs to 10 as known facts. **Topic 6 (Investigating Data)** and **Topic 7 (Extending Approaches to Problem Solving)** provide avenues for synthesizing learning, consolidating skills, and building fluency with addition and subtraction within 20 through relevant contextual opportunities. Topic 7 utilizes data contexts for a wide variety of problem-solving combined with rigorous interpretation of the mathematics in context. The focus of Topic 8 returns to the interpretation of word problems, with an emphasis on problem types that are more difficult to interpret. Students draw on now-familiar modeling procedures to put mathematics onto the language they encounter in these problems.

In **Topic 9 (Exploring Financial Literacy)**, students build on the idea of groups that they developed in the place value Topics by exploring skip counting by 2 and by 5. They develop an understanding of a single coin as a representative of a group, and they distinguish between the number of coins in a set and the value of those coins. In the final two Topics of the course, students extend their schema of composing and decomposing to shapes. In **Topic 10 (Composing and Decomposing Shapes)**, students explore ways to build simple and composite shapes from component parts. In **Topic 11 (Partitioning Shape and Time)**, students apply their understanding of equal groups to generate equal parts. Telling time is viewed through the lens of equal parts of the clock face, giving students the opportunity to synthesize their understanding of many course concepts, including equal groups, partitioning shapes, and modeling.

Topic 1: Adding and Subtracting Within 10

ST Math Objectives: [Addition and Subtraction Within 10](#), [Number Pairs and Making 10](#), [Addition, Subtraction and Equations](#)

TEKS: 1.1.A 1.1.B 1.1.C 1.1.D 1.1.E 1.1.F 1.1.G 1.2.A 1.3.B 1.3.C 1.3.D 1.3.E 1.5.A 1.5.D 1.5.G

ELPS: 1.A 1.B 1.C 2.B 2.E 3.B 3.G 3.H 4.B 4.D 4.E

Counting to Tell How Many	7
Subitizing to Tell How Many.....	8
Acting Out to Model Addition Within 10.....	9
Using Equations to Model Addition Within 10.....	10
Counting On to Tell How Many	11
Using a Number Path to Add Within 10.....	12
Acting Out to Model Subtraction Within 10	13
Using Equations to Model Subtraction Within 10.....	14
Using a Number Path to Subtract Within 10	15
Exploring the Relationship Between Addition and Subtraction ..	16
Using Number Bonds to Model and Solve Part–Part–Total Relationships.....	17
Using Equations to Model and Solve Part–Part–Total Relationships.....	18
Exploring the Commutative Property of Addition	19
Using Equations to Model 10	20
Exploring Strategies to Find the Missing Part	21
Choosing Strategies to Find the Missing Part	22
Using a Think-Addition Strategy to Subtract Within 10	23

Topic 2: Building Approaches to Problem Solving

ST Math Objectives: [Addition and Subtraction Situations with Unknowns](#), [Addition and Subtraction Within 10](#), [Addition, Subtraction and Equations](#)

TEKS: 1.1.A 1.1.B 1.1.C 1.1.D 1.1.E 1.1.F 1.1.G 1.3.B 1.3.D 1.3.E 1.3.F 1.5.A 1.5.D

ELPS: 1.A 1.B 1.E 2.E 2.F 3.B 3.F 3.H 4.D 4.E

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Counting Strategically to Solve Word Problems.....	31
Modeling and Solving Active Addition and Subtraction Word Problems: Result Unknown	32
Modeling and Solving Active Subtraction Word Problems: Change Unknown.....	33
Modeling and Solving Active Addition Word Problems: Change Unknown	34
Creating Active Addition and Subtraction Word Problems: Change Unknown.....	35

Topic 3: Comparing and Measuring Length

ST Math Objectives: [Measurement Concepts](#), [Comparing and Ordering Two-Digit Numbers](#), [Shape Differences](#)

TEKS: 1.1.A 1.1.B 1.1.C 1.1.D 1.1.E 1.1.F 1.1.G 1.7.A 1.7.B 1.7.C 1.7.D

ELPS: 1.A 1.C 1.D 1.E 2.B 2.C 2.E 2.F 3.B 3.H 4.D 4.E

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Making Predictions When Comparing Height.....	40
Measuring Length with Nonstandard Units	41
Measuring Length Without Gaps and Overlaps.....	42
Creating a Tool to Measure Length.....	43
Aligning Units and Tools to Measure Length.....	44
Using Same-Size Units to Measure Length.....	45
Using Measurements To Compare Lengths	46

Topic 4: Exploring Place Value Within 120

ST Math Objectives: [Place Value Concepts](#), [Ten as a Unit](#), [Counting to 120](#)

TEKS: 1.1.B 1.1.C 1.1.D 1.1.E 1.1.F 1.1.G 1.2.B 1.2.C 1.2.F 1.5.A 1.5.B 1.5.C

ELPS: 1.A 1.B 1.C 1.E 1.F 2.B 2.C 2.D 2.E 2.F 3.B 3.C 3.H 4.D 4.E

Making Groups to Tell How Many	48
Using Number Bonds and Ten Frames to Model Teen Numbers..	49
Using Place Value Mats to Model Teen Numbers.....	50
Counting by 10s to Tell How Many.....	51
Using Place Value Mats to Model Two-Digit Numbers	52
Comparing Models of Two-Digit Numbers.....	53
Estimating and Representing Two-Digit Quantities.....	54
Using Number Bonds to Model Two-Digit Numbers.....	55
Using Place Value Patterns to Find 10 More or Less.....	56
Locating Numbers Within 100 on a Number Path	57
Using Place Value Patterns to Locate Numbers on a Hundred Chart.....	58
Using Place Value Patterns to Build Numbers Within 120.....	59
Using Base Ten Blocks to Model Numbers Within 120.....	60
Using Number Bonds to Model Numbers Within 120	61
Using Place Value Patterns to Extend a Number Path and Hundred Chart to 120.....	62
Using Place Value to Find the Treasure	63

Topic 5: Adding and Subtracting Within 20

ST Math Objectives: [Addition and Subtraction Within 20](#), [Number Pairs and Making 10](#), [Adding and Subtracting by Tens](#)

TEKS: 1.1.A 1.1.B 1.1.C 1.1.D 1.1.E 1.1.F 1.1.G 1.3.A 1.3.B 1.3.C 1.3.D 1.3.E 1.5.D 1.5.E 1.5.F 1.5.G

ELPS: 1.A 1.B 1.C 1.D 1.E 1.F 2.B 2.C 2.D 2.E 2.F 3.A 3.B 3.E 3.F 3.H 4.C 4.D 4.E 4.F

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Using Addition to Solve Subtraction Problems	76
Using Strategies to Identify Unknown Parts	77
Choosing Strategies to Solve Addition and Subtraction Problems.....	78
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Topic 6: Investigating Data

ST Math Objectives: [Organizing Data](#), [Comparing and Ordering Two-Digit Numbers](#), [Telling Time](#)

TEKS: 1.1.A 1.1.B 1.1.C 1.1.D 1.1.E 1.1.F 1.1.G 1.3.B 1.5.F 1.8.A 1.8.B 1.8.C

ELPS: 1.A 1.B 1.E 2.A 2.B 2.C 2.E 3.B 3.E 3.F 3.H 4.D 4.E

Sorting Objects into Data Categories	81
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Using Picture Graphs to Compare Data	83
Using Tables to Compare Data	84
Using a Data Investigation Process	85
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Comparing Data Displays.....	87
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Using a Bar-Type Graph to Explain Data.....	89
Using Tally Marks to Collect Data.....	90
Planning and Conducting a Data Collection	91
Using Data to Make Decisions.....	92
Planning and Conducting a Data Investigation	93

Topic 7: Extending Approaches to Problem Solving

ST Math Objectives: [Addition and Subtraction Situations with Unknowns](#), [Addition and Subtraction Within 20](#), [Addition, Subtraction and Equations](#)

TEKS: 1.1.A 1.1.B 1.1.C 1.1.D 1.1.E 1.1.F 1.1.G 1.3.B 1.3.C 1.3.D 1.3.E 1.3.F 1.5.D 1.5.E 1.5.F 1.5.G 1.8.C

ELPS: 1.A 1.B 1.E 1.F 2.B 2.E 2.F 3.B 3.E 3.F 3.G 3.H 4.D 4.E

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Thinking Flexibly When Comparing Amounts.....	100
Using Flexible Language When Comparing Amounts	101
Modeling and Solving Add-To Start-Unknown Problems	102
Modeling and Solving Take-From Start-Unknown Problems.....	103
Using Data to Generate and Answer Additive Comparison Questions.....	104
Modeling and Solving Additive Comparison Problems.....	105
Modeling and Solving Two-Step Addition and Subtraction Problems.....	106
Modeling and Solving Open-Ended Addition and Subtraction Problems.....	107

Topic 8: Extending Place Value to 120

ST Math Objectives: [Place Value Concepts](#), [Bundles to 100](#), [Two-Digit Number Words](#)

TEKS: 1.1.A 1.1.B 1.1.C 1.1.D 1.1.E 1.1.F 1.1.G 1.2.B 1.2.C 1.2.D 1.2.E 1.2.F 1.2.G 1.3.A

ELPS: 1.A 1.B 1.C 1.D 1.E 2.A 2.B 2.C 2.E 3.B 3.C 3.E 3.G 3.H 4.D 4.E

Using Number Bonds to Write Addition Equations	109
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Using Place Value Reasoning to Compare Numbers Within 120 ..	118
Using a Number Path to Compare and Order Numbers Within 120	119
Using Place Value Reasoning to Complete Comparison Statements.....	120

Topic 9: Exploring Financial Literacy

ST Math Objectives: [Money](#), [Addition and Subtraction Within 20](#), [Counting to 120](#)

TEKS: 1.1.A 1.1.B 1.1.C 1.1.E 1.1.F 1.1.G 1.2.E 1.3.A 1.4.A 1.4.B 1.4.C 1.5.B 1.5.C 1.9.A 1.9.B 1.9.C 1.9.D

ELPS: 1.A 1.C 1.D 1.E 2.D 2.E 2.F 3.A 3.B 3.C 3.D 3.E 3.F 3.G 3.H 4.A 4.D 4.E

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Introducing the Quarter	125
Creating Values with Dimes and Pennies.....	126
Determining Values of Sets of Mixed Coins.....	127
Creating Values with Sets of Mixed Coins.....	128
Identifying Sources of Income.....	129
Saving and Spending Money	130
Helping Others Through Charitable Giving	131

Topic 10: Composing and Decomposing Shapes

ST Math Objectives: [Composite Shapes](#), [Shape Differences](#), [Equal Shares and Partitioning](#)

TEKS: 1.1.B 1.1.C 1.1.D 1.1.E 1.1.F 1.1.G 1.6.A 1.6.B 1.6.C 1.6.D 1.6.E 1.6.F

ELPS: 1.A 1.B 2.A 2.B 2.E 2.F 3.B 3.D 3.H 4.D 4.E

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Exploring Relationships Between Shapes.....	140
Composing Irregular 2-D Shapes.....	141
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Topic 11: Partitioning Shape and Time

ST Math Objectives: [Equal Shares and Partitioning](#), [Equal Shares and Partitioning Symbolic](#), [Telling Time](#)

TEKS: 1.1.A 1.1.B 1.1.C 1.1.D 1.1.E 1.1.F 1.1.G 1.6.D 1.6.F 1.6.G 1.6.H 1.7.E 1.8.A 1.8.B 1.8.C

ELPS: 1.A 1.B 1.C 1.E 2.B 2.C 2.D 2.E 3.B 3.H 4.D 4.E

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Grade 2

Content Overview

Topic 1 (Estimating and Measuring Length) builds a strong understanding of length that students can extend to length models in subsequent topics , including number lines and bar-type graphs in **Topic 2 (Discovering Addition and Subtraction on the Number Line)**, strip diagrams in **Topic 4 (Exploring Addition and Subtraction Within 100)**, and bar graphs in **Topic 7 (Investigating Data)**. These length models support the progressive development of sequential addition and subtraction place value strategies throughout the course. Comparison language and word problems are also carefully introduced in a length context in Topic 1 so that students can both measure and calculate differences, which prepares students to apply length models abstractly to problem-solving in subsequent topics .

While topics 1 and 2 lay a foundation for students in length measurement and length models, they also give students the opportunity to cement fluency with addition and subtraction within 20. They explore the use of models and strategies within this familiar number range before extending to greater number ranges in topics 3–6. **Topics 3 (Discovering Place Value Strategies)** and 4 (Exploring Addition and Subtraction Within 100) focus on addition and subtraction within 100, as students come into grade 2 with a firm understanding of the place value structure within 100. These topics leverage that place value understanding to develop place value strategies for addition and subtraction. **Topic 5 (Extending Place Value to 1,200)** extends their place value understanding to 1,200, which allows for an extension of addition and subtraction strategies to problems within 1,000 in **Topic 6 (Extending Addition and Subtraction to 1,000)**.

The final four topics of the course provide avenues for synthesizing learning and consolidating skills through relevant contextual opportunities. **Topic 7 (Investigating Data)** utilizes data contexts for a wide variety of problem-solving combined with rigorous interpretation of the mathematics in context. **Topic 8 (Counting in Groups)** relies on a strong foundation in addition and subtraction, which has been built over the course of the year, to introduce the idea of equal groups and repeated addition, paving the road for formal multiplication early in grade 3. The idea of counting in groups is revisited in **Topic 9 (Building Financial Literacy)**, during which students apply their understanding of skip counting and equal groups to determine the value of sets of coins. This thinking about equal groups culminates in **Topic 10 (Exploring Shapes and Time)**, when students apply the same concept to equal parts of shapes. Telling time is viewed through the lens of equal parts of the clock face, giving students the opportunity to synthesize their understanding of many course concepts, including equal groups, partitioning shapes, skip counting, and modeling.

Topic 1: Estimating and Measuring Length

ST Math Objectives: [Measurement, Addition and Subtraction with Measurement, Two-Step Situations](#)

TEKS: 2.1.A 2.1.B 2.1.C 2.1.D 2.1.E 2.1.F 2.1.G 2.4.C 2.9.A 2.9.B 2.9.D 2.9.E

ELPS: 1.A 1.D 1.E 1.F 2.B 2.C 2.E 2.F 3.A 3.B 3.E 3.F 3.G 3.H 4.D 4.E

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Solving Greater-Unknown Comparison Word Problems Involving Length.....	19
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Topic 2: Discovering Addition and Subtraction on the Number Line

ST Math Objectives: [The Number Line to 1,200, Operations on the Number Line, Addition and Subtraction Situations](#)

TEKS: 2.1.A 2.1.B 2.1.C 2.1.D 2.1.E 2.1.F 2.1.G 2.10.A 2.10.B 2.10.C 2.2.C 2.2.D 2.2.E 2.2.F 2.4.A 2.4.B 2.4.C 2.4.D 2.7.C 2.9.C

ELPS: 1.A 1.B 1.C 1.D 1.E 2.B 2.C 2.D 2.E 2.F 3.A 3.B 3.H 4.D 4.E

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Using Number Lines to Find the Difference.....	33
Using Number Lines to Complete a Bar-Type Graph.....	34
Using Number Lines to Model and Solve Additive Comparison Word Problems.....	35

Topic 3: Discovering Place Value Strategies

ST Math Objectives: [Place Value to 1,200, Two-Digit Addition and Subtraction, Adding and Subtracting Tens and Hundreds](#)

TEKS: 2.1.A 2.1.B 2.1.C 2.1.D 2.1.E 2.1.F 2.1.G 2.2.A 2.2.D 2.2.F 2.4.A 2.4.B 2.4.C 2.7.B 2.7.C 2.9.C

ELPS: 1.A 1.B 1.E 2.A 2.B 2.C 2.D 2.E 2.F 3.A 3.B 3.H 4.D 4.E 4.F

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Topic 4: Exploring Addition and Subtraction Within 100

ST Math Objectives: [Addition and Subtraction Situations within 100, Two-Digit Addition and Subtraction, One Hundred as a Unit](#)

TEKS: 2.1.A 2.1.B 2.1.C 2.1.D 2.1.E 2.1.F 2.1.G 2.2.D 2.4.A 2.4.B 2.4.C 2.4.D 2.7.C

ELPS: 1.A 1.F 2.B 2.C 2.D 2.E 2.F 3.B 3.C 3.H 4.D 4.E

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Topic 5: Extending Place Value to 1,200

ST Math Objectives: [Place Value to 1,200](#), [Place Value Bundles to 1000](#), [Comparing Three-Digit Numbers](#)

TEKS: 2.1.B 2.1.C 2.1.D 2.1.E 2.1.F 2.1.G 2.2.A 2.2.B 2.2.C 2.2.D 2.2.E 2.2.F 2.7.B 2.9.C

ELPS: 1.A 1.C 1.E 1.F 2.A 2.C 2.D 2.E 2.F 3.B 3.C 3.D 3.F 3.G 3.H 4.A 4.B 4.D 4.E

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Topic 6: Extending Addition and Subtraction to 1,000

ST Math Objectives: [Model Addition and Subtraction within 1000](#), [Adding and Subtracting Tens and Hundreds](#), [Two-Step Situations](#)

TEKS: 2.1.A 2.1.B 2.1.C 2.1.D 2.1.E 2.1.F 2.1.G 2.2.D 2.2.E 2.4.B 2.4.C 2.4.D 2.7.B 2.7.C

ELPS: 1.A 1.C 1.D 1.E 2.B 2.C 2.D 2.E 2.F 3.A 3.D 3.F 3.G 3.H 4.D 4.E 4.F

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Topic 7: Investigating Data

ST Math Objectives: [Creating Graphs](#), [Comparing Three-Digit Numbers](#), [Skip Counting](#)

TEKS: 2.1.A 2.1.B 2.1.C 2.1.D 2.1.E 2.1.F 2.1.G 2.10.A 2.10.B 2.10.C 2.10.D 2.2.D 2.4.C

ELPS: 1.A 1.B 1.C 1.E 1.F 2.A 2.B 2.C 2.D 2.E 2.F 3.B 3.C 3.E 3.G 3.H 4.A 4.B 4.C 4.D 4.E 4.F

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Topic 8: Counting in Groups

ST Math Objectives: [Skip Counting](#), [Rows and Columns](#), [Even and Odd Numbers](#)

TEKS: 2.1.B 2.1.C 2.1.D 2.1.E 2.1.F 2.1.G 2.10.A 2.10.B 2.10.D 2.4.A 2.6.A 2.6.B 2.7.A 2.9.F

ELPS: 1.A 1.B 1.E 2.B 2.E 2.F 3.B 3.F 3.G 3.H 4.D 4.E

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Topic 9: Building Financial Literacy

ST Math Objectives: [Using Money](#), [Money Place Value](#), [Two-Step Situations](#)

TEKS: 2.1.A 2.1.B 2.1.C 2.1.F 2.1.G 2.11.A 2.11.B 2.11.C 2.11.D 2.11.E 2.11.F 2.4.B 2.5.A 2.5.B K.1.A

ELPS: 1.A 1.B 1.C 1.E 2.B 2.D 2.E 2.F 3.B 3.E 3.H 4.C 4.D 4.F

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Topic 10: Exploring Shapes and Time

ST Math Objectives: [Shapes](#), [Time](#), [Partitioning into Equal Shares](#)

TEKS: 2.1.A 2.1.B 2.1.C 2.1.D 2.1.E 2.1.F 2.1.G 2.3.A 2.3.B 2.3.C 2.3.D 2.8.A 2.8.B 2.8.C 2.8.D 2.8.E 2.9.D 2.9.G

ELPS: 1.A 1.E 2.B 2.C 2.D 2.E 3.B 3.C 3.D 3.F 3.G 3.H 4.C 4.D 4.E 4.F

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Grade 3

Content Overview

Topic 1 (Discovering Multiplication and Division) introduces students to the operations of multiplication and division. This Topic focuses on building a strong conceptual foundation of the mathematics of equal groups, modeling multiplication situations, multiplication and division as inverse operations, and the efficiency of multiplication and division in place of repeated addition and subtraction.

Students explored the attribute of area informally in grade 2, and now in **Topic 2 (Discovering Area)**, they formally explore area of two-dimensional shapes. They directly measure area with Topic squares before discovering that multiplication can be used to indirectly measure the area of a rectangle. This work with area early in the course supports the use of area models of multiplication in subsequent topics.

In **Topic 3 (Exploring Multiplication and Division Strategies)**, students begin to develop more efficient multiplication strategies by using known foundational facts (such as 2s and 10s) to derive unknown facts using strategies such as grouping, partitioning, and compensation. They use their knowledge of area in order to use area as a model for multiplication and to support strategy development.

Students delve deeper into two-dimensional shapes in **Topic 4 (Discovering Perimeter and Exploring Area)**, differentiating between quantifying the size of shape as perimeter or area and investigating the relationship between the two. Students synthesize their understanding of area, multiplication, and division in **Topic 5 (Extending Multiplication and Division Strategies)** as they pair symbolic representations with area models, multiply and divide fluently, and extend their strategies to multidigit numbers.

In **Topic 6 (Using Place Value to Add and Subtract)**, the focus shifts to place value understanding and how that supports comparison, addition, and subtraction of multidigit numbers. As students begin working with greater numbers, there is an emphasis on real-world examples in order to support understanding of magnitude.

In earlier grade levels, students partitioned shapes into equal shares and described the pieces as halves, thirds, etc. **Topic 7 (Discovering Fractions)** formally introduces students to fractions and fractional notation. Students first come to understand Topic fractions as one piece of a whole, and then extend their understanding to non-Topic fractions through both iteration and partitioning. This builds on students' schema of iterating topics of length and area. In **Topic 8 (Exploring Fractional Thinking)**, students extend their understanding of fractions in order to generate simple equivalent fractions and to make comparisons. They come to understand fractions as numbers and recognize that there are many equivalent ways to represent the same number.

In **Topic 9 (Exploring Measurement)**, students make use of their new knowledge of fractions to understand measurement as continuous, and express length measurements as fractions. They also extend their measurement schema to the attributes of volume and weight. With a larger repertoire of ways in which to quantify size, they learn to select appropriate attributes and topics in context.

Topic 10 (Deepening Financial Literacy) provides students with an opportunity to apply their addition and subtraction skills to solve problems related to money while also considering how financial decisions impact one another. Students complete the year applying their skills to more real-world contexts in **Topic 11 (Investigating Data)**.

Topic 1: Discovering Multiplication and Division

ST Math Objectives: [Multiplication Concepts](#), [Division Concepts](#), [Multiplication and Division Relationships](#)

TEKS: 1.1.F 3.1.A 3.1.B 3.1.C 3.1.D 3.1.E 3.1.F 3.1.G 3.2.D 3.4.D 3.4.E 3.4.F 3.4.G 3.4.H 3.4.I 3.4.K 3.5.B 3.5.C 3.5.D 3.8.B

ELPS: 1.A 1.B 1.C 1.E 1.F 2.A 2.B 2.C 2.D 2.E 3.A 3.C 3.E 3.F 3.G 3.H 4.A 4.D 4.E 4.F

Exploring Equal Groups.....	7
Using Equal Groups to Find the Total.....	8
Writing Repeated Addition Equations to Model Equal Groups.....	9
Introducing Multiplication.....	10
Modeling and Solving Multiplication Problems with Equal Groups.....	11
Modeling and Solving Partitive Division Problems.....	12
Modeling and Solving Quotitive Division Problems.....	13
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Using Arrays to Organize Equal Groups.....	15
Modeling and Solving Word Problems Involving Arrays.....	16
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Using the Commutative Property of Multiplication Strategically.....	18
Using Patterns to Multiply.....	19
Using Multiplication and Division Patterns to Solve Equal-Group Problems.....	20
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Topic 2: Exploring Area

ST Math Objectives: [Multiplication and Area](#), [Area and Perimeter](#), [Properties of Multiplication](#)

TEKS: 3.1.A 3.1.B 3.1.C 3.1.D 3.1.E 3.1.F 3.1.G 3.4.E 3.4.K 3.5.B 3.6.C

ELPS: 1.A 1.B 1.D 1.E 2.B 2.D 2.E 2.F 3.C 3.F 3.G 4.A 4.C 4.D 4.E 4.F

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Topic 3: Exploring Multiplication and Division Strategies

ST Math Objectives: [Multiplication Facts and Strategies](#), [Division Facts and Strategies](#), [Properties of Multiplication](#)

TEKS: 1.1.D 3.1.A 3.1.B 3.1.C 3.1.D 3.1.E 3.1.F 3.1.G 3.4.E 3.4.F 3.4.G 3.4.H 3.4.J 3.4.K 3.5.B 3.5.D 3.6.C 3.6.D 3.8.A 3.8.B

ELPS: 1.A 1.B 1.E 2.B 2.C 2.D 2.E 2.F 3.A 3.E 3.F 3.G 4.A 4.D 4.E

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Exploring More Patterns in a Multiplication Table.....	50
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Topic 4: Discovering Perimeter and Exploring Area

ST Math Objectives: [Area and Perimeter](#), [Shape Attributes](#), [Multiplication and Area](#)

TEKS: 3.1.A 3.1.B 3.1.C 3.1.D 3.1.E 3.1.F 3.1.G 3.4.A 3.4.K 3.6.A 3.6.B 3.6.C 3.6.D 3.7.B

ELPS: 1.A 1.B 1.C 1.E 2.A 2.B 2.C 2.E 2.F 3.A 3.E 3.F 3.G 3.H 4.A 4.D 4.E

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Using Side Lengths to Measure Perimeter.....	56
Strategically Calculating Perimeter.....	57
Using Perimeter to Find Missing Side Lengths of Polygons.....	58
Relating Perimeter and Area.....	59
Exploring a Change in Perimeter or Area of a 2-D Shape.....	60
Solving Two-Step Problems Involving Perimeter and Area of Rectangles.....	61
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Topic 5: Extending Multiplication and Division Strategies

ST Math Objectives: [Multiplication and Division Facts](#), [Multiplication as Comparison](#), [Solve Two-Step Problems](#)

TEKS: 3.1.A 3.1.B 3.1.C 3.1.D 3.1.E 3.1.F 3.1.G 3.4.E 3.4.F 3.4.G 3.4.I 3.4.K 3.5.B 3.6.C 3.6.D 3.8.A 3.8.B

ELPS: 1.A 1.B 1.C 1.D 1.E 1.F 2.A 2.B 2.C 2.D 2.E 2.F 3.A 3.C 3.E 3.F 3.G 3.H 4.A 4.B 4.C 4.D 4.E 4.F

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Solving Open-Ended Problems with the Standard Algorithm.....	86
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Topic 6: Extending Place Value and Adding and Subtracting Efficiently

ST Math Objectives: [Place Value to 100,000](#), [Addition and Subtraction within 1000 Strategies](#), [Composing and Decomposing within 1000](#)

TEKS: 3.1.A 3.1.B 3.1.C 3.1.D 3.1.E 3.1.F 3.1.G 3.2.A 3.2.B 3.2.C 3.2.D 3.4.A 3.4.B 3.5.A 3.5.C

ELPS: 1.A 1.B 1.D 1.E 1.F 2.A 2.B 2.C 2.D 2.E 2.F 3.A 3.B 3.C 3.D 3.E 3.F 3.G 3.H 4.A 4.D 4.E

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Using Rounding to Estimate the Total.....	97
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Solving Word Problems Involving Addition and Subtraction of Three-Digit Numbers.....	101
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Solving Two-Step Word Problems Involving Addition and Subtraction of Three-Digit Numbers.....	103
Using Estimation to Solve Two-Step Word Problems Involving Three-Digit Addition and Subtraction	104
Choosing Strategies to Flexibly Add and Subtract Three-Digit Numbers	105

Topic 7: Discovering Fractions

ST Math Objectives: [Fraction Concepts](#), [Fractions on the Number Line](#), [Number Patterns](#)

TEKS: 3.1.A 3.1.B 3.1.D 3.1.E 3.1.F 3.1.G 3.3.A 3.3.B 3.3.C 3.3.D 3.3.E 3.6.E 3.7.A

ELPS: 1.A 1.B 1.C 1.E 2.A 2.B 2.C 2.D 2.E 2.F 3.A 3.F 4.A 4.D 4.E 4.F

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Exploring Fractions Involving Number Lines.....	116
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Topic 8: Exploring Fraction Thinking

ST Math Objectives: [Fraction Equivalence and Ordering](#), [Fractions on the Number Line](#), [Fraction Concepts](#)

TEKS: 3.1.A 3.1.B 3.1.C 3.1.D 3.1.E 3.1.F 3.1.G 3.3.A 3.3.B 3.3.C 3.3.D 3.3.F 3.3.G 3.3.H 3.6.E 3.7.A

ELPS: 1.A 1.B 2.B 2.C 2.D 2.E 3.A 3.B 3.C 3.D 3.F 4.A 4.D 4.E

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Using Patterns to Make Equivalent Fractions.....	122
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Topic 9: Exploring Measurement

ST Math Objectives: [Time to the Minute](#), [Intervals of Time](#), [Weight and Volume](#)

TEKS: 3.1.A 3.1.B 3.1.C 3.1.D 3.1.E 3.1.F 3.1.G 3.3.H 3.4.A 3.4.K 3.5.E 3.6.A 3.7.A 3.7.D 3.7.E 3.8.A 3.8.B

ELPS: 1.A 1.B 1.C 1.D 1.E 2.A 2.B 2.C 2.D 2.E 2.F 3.A 3.B 3.D 3.E 3.F 4.A 4.B 4.C 4.D 4.E 4.F

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Topic 10: Deepening Financial Literacy

ST Math Objectives: [Money with Coins and Bills](#), [Addition and Subtraction within 1000 Strategies](#), [Solve Two-Step Problems](#)

TEKS: 3.1.A 3.1.B 3.1.E 3.1.F 3.1.G 3.4.A 3.4.C 3.4.K 3.5.C 3.5.E 3.9.A 3.9.B 3.9.C 3.9.D 3.9.E 3.9.F

ELPS: 1.A 1.F 2.A 2.C 2.D 2.E 3.A 3.C 3.E 3.F 3.H 4.A 4.B 4.C 4.D 4.E

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Exploring Decisions About Planned and Unplanned Uses of Money	152
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Topic 11: Investigating Data

ST Math Objectives: [Line Plots](#), [Scale and Measurement in Graphing](#), [Number Patterns](#)

TEKS: 3.1.A 3.1.B 3.1.C 3.1.D 3.1.E 3.1.F 3.1.G 3.7.C 3.8.A 3.8.B

ELPS: 1.A 1.E 2.B 2.E 2.F 3.A 3.B 3.C 3.E 3.F 3.G 4.A 4.C 4.D 4.E

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Relating Analog Clocks, Number Lines, and Time	162
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Grade 4

Content Overview

Students enter grade 4 with an existing schema of multiplication as the mathematics of equal groups. They extend that schema in **Topic 1 (Exploring Multiplicative Relationships)** to generate a more robust concept of multiplicative relationships as they explore factors, multiples, and input-output tables. They begin to explore division situations with remainders and interpret remainders in context. **Topic 2 (Discovering Multiplicative Comparison)** extends students' multiplication schemas further to include situations involving multiplicative comparison. Students develop their language skills related to these situations, and apply understanding of multiplicative relationships to convert between customary topics of measurement.

In **Topic 3 (Extending Place Value and Adding and Subtracting Efficiently)**, students generalize place value reasoning, making use of periodicity to work with numbers up to one billion. They describe place value relationships as multiplicative comparisons and use place value reasoning to compare, add, and subtract multidigit numbers. In **Topic 4 (Extending Multiplication to Multidigit Whole Numbers)** and **Topic 5 (Building Division Strategies)**, students connect place value reasoning to their understanding of factors and multiples to generalize multiplication and division strategies, and then extend those strategies in **Topic 6 (Extending Division Strategies)**.

The next pair of topics focus on fractions. Students begin **Topic 7 (Extending Addition and Subtraction to Fractions)** by extending their fraction schema to include numbers greater than 1, and to express them in different but equivalent ways including fractions, whole numbers, and mixed numbers. They continue to think of Topic fractions as they do other topics, and build understanding that fractions can be added or subtracted when they are expressed with common Topic fractions. In **Topic 8 (Exploring Fraction Thinking and Discovering Decimals)** extend their understanding of equivalence to represent numbers as equivalent fractions and as decimals and explore ways to generate these equivalent forms and compare numbers.

In **Topic 9 (Extending Financial Literacy)**, students use money contexts to support understanding of addition and subtraction of decimals. They explore thinking of decimals as fractions and to extend whole number place value reasoning to decimals, and see that both of these are legitimate ways to think about adding and subtracting decimals. Students have the opportunity to further practice adding and subtracting decimals as they learn about income, expenses, saving, and borrowing.

Students examine two-dimensional shapes and the relationships among their parts in **Topic 10 (Exploring Shapes, Lines, and Angles)** as they extend their classification system. **Topic 11 (Making Connections with Time and Data)** offers students the opportunity to consolidate much of their learning as they problem solve with fractions, angles, multiples, and data representations in real-world situations.

Topic 1: Exploring Multiplicative Relationships

ST Math Objectives: [Factors and Multiples](#), [Generating Patterns](#), [Multi-Digit Multiplication](#)

TEKS: 4.1.A 4.1.B 4.1.C 4.1.D 4.1.E 4.1.F 4.1.G 4.4.C 4.4.D 4.4.E 4.4.F 4.4.H 4.5.A 4.5.B 4.5.C 4.5.D

ELPS: 2.A 2.B 2.C 2.D 2.E 2.F 3.B 3.H 4.A 4.B 4.C 4.E 4.F

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Using Multiples to Solve Problems.....	14
Exploring Multiplication and Division Relationships.....	15
Dividing with Remainders.....	16
Interpreting Remainders.....	17
Solving Division Word Problems with Remainders.....	18

Topic 2: Discovering Multiplicative Comparison

ST Math Objectives: [Multi-Digit Multiplication](#), [Applying Area and Perimeter](#), [Factors and Multiples](#)

TEKS: 4.1.A 4.1.B 4.1.C 4.1.D 4.1.E 4.1.F 4.1.G 4.4.B 4.4.D 4.4.H 4.5.A 4.5.B 4.8.A 4.8.B 4.8.C

ELPS: 1.E 2.A 2.B 2.E 2.F 3.B 3.C 3.E 3.F 3.G 3.H 4.A 4.B 4.C 4.E 4.F

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Converting Between Customary Length Measurements.....	27
Solving Problems with Customary Length Conversions.....	28
Converting Between Pounds and Ounces.....	29
Converting Between Customary Units of Liquid Volume.....	30
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Topic 3: Extending Place Value and Adding and Subtracting Efficiently

ST Math Objectives: [Using Place Value](#), [Addition and Subtraction Algorithm](#), [Rounding Whole Numbers](#)

TEKS: 4.1.A 4.1.B 4.1.C 4.1.D 4.1.E 4.1.F 4.1.G 4.2.A 4.2.B 4.2.C 4.2.D 4.4.A 4.4.B 4.4.G 4.5.A 4.8.A 4.8.B 4.8.C 4.9.A 4.9.B

ELPS: 1.B 1.C 1.D 1.E 1.F 2.B 2.C 2.D 2.E 2.F 3.A 3.C 3.D 3.E 3.F 3.G 3.H 4.A 4.B 4.C 4.D 4.E 4.F

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Topic 4: Extending Multiplication to Multidigit Whole Numbers

ST Math Objectives: [Multi-Digit Multiplication](#), [Factors and Multiples](#), [Generating Patterns](#)

TEKS: 4.1.A 4.1.B 4.1.C 4.1.D 4.1.E 4.1.F 4.1.G 4.2.A 4.4.B 4.4.C 4.4.D 4.4.G 4.4.H 4.5.A 4.5.C 4.5.D 4.8.C

ELPS: 1.C 1.E 2.B 2.C 2.D 2.E 2.F 3.A 3.E 3.F 3.G 3.H 4.A 4.B 4.C 4.E 4.F

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Modeling and Solving Multistep Word Problems Involving Multiplication.....	70
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Topic 5: Building Division Strategies

ST Math Objectives: [Multi-Digit Division, Factors and Multiples, Multi-Step Problems Using 4 Operations](#)

TEKS: 4.1.A 4.1.B 4.1.C 4.1.D 4.1.E 4.1.F 4.1.G 4.2.A 4.4.B 4.4.E 4.4.F 4.4.H 4.5.A 4.5.B 4.5.D

ELPS: 1.C 1.E 2.B 2.C 2.E 2.F 3.E 3.F 3.G 3.H 4.A 4.B 4.C 4.E 4.F

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Topic 6: Extending Division Strategies

ST Math Objectives: [Multi-Digit Division, Multi-Step Problems Using 4 Operations, Factors and Multiples](#)

TEKS: 4.1.A 4.1.B 4.1.C 4.1.D 4.1.E 4.1.F 4.1.G 4.4.B 4.4.C 4.4.D 4.4.E 4.4.F 4.4.H 4.5.A 4.5.B

ELPS: 1.A 2.A 2.C 2.D 3.A 3.E 3.H 4.A 4.B 4.C 4.D 4.E 4.F

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Topic 7: Extending Addition and Subtraction to Fractions

ST Math Objectives: [Adding and Subtracting Fractions, Mixed Numbers, Fractions - Equivalence and Ordering](#)

TEKS: 4.1.A 4.1.B 4.1.C 4.1.D 4.1.E 4.1.F 4.1.G 4.3.A 4.3.B 4.3.C 4.3.E 4.3.F 4.3.G 4.9.A 4.9.B

ELPS: 1.B 1.C 2.A 2.B 2.E 2.F 3.A 3.B 3.C 3.F 3.G 3.H 4.A 4.B 4.C 4.E 4.F

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Topic 8: Exploring Fraction Thinking and Discovering Decimals

ST Math Objectives: [Fractions - Equivalence and Ordering, Fraction and Decimal Equivalence, Mixed Numbers](#)

TEKS: 4.1.A 4.1.B 4.1.C 4.1.D 4.1.E 4.1.F 4.1.G 4.2.A 4.2.B 4.2.E 4.2.F 4.2.G 4.2.H 4.3.C 4.3.D 4.3.F 4.3.G 4.8.B

ELPS: 1.C 1.E 2.A 2.B 2.C 2.D 2.E 2.F 3.A 3.F 3.H 4.A 4.B 4.C 4.E 4.F

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Comparing and Ordering Decimals.....	130
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Topic 9: Extending Financial Literacy

ST Math Objectives: Decimal Addition and Subtraction , Comparing Decimals , Fraction and Decimal Equivalence	
TEKS: 4.1.A 4.1.B 4.1.C 4.1.D 4.1.E 4.1.F 4.1.G 4.10.A 4.10.B 4.10.C 4.10.D 4.10.E 4.2.A 4.2.B 4.2.E 4.2.F 4.2.G 4.3.C 4.3.D 4.4.A 4.5.A 4.5.B 4.8.C 4.9.A 4.9.B	
ELPS: 1.E 1.F 2.A 2.B 2.D 2.E 2.F 3.A 3.B 3.C 3.F 3.G 3.H 4.A 4.B 4.C 4.D 4.E 4.F	
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Topic 10: Exploring Shapes, Lines, and Angles

ST Math Objectives: Lines and Angles , Classifying Shapes , Lines of Symmetry	
TEKS: 4.1.B 4.1.C 4.1.D 4.1.E 4.1.F 4.1.G 4.6.A 4.6.B 4.6.C 4.6.D 4.7.A 4.7.B 4.7.C 4.7.D 4.7.E 5.1.E	
ELPS: 1.A 1.B 1.D 1.E 2.B 2.E 3.D 3.H 4.A 4.B 4.C 4.E 4.F	
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Topic 11: Making Connections with Time and Data

ST Math Objectives: Measurement and Conversions , Dot Plots , Multi-Step Addition and Subtraction Problems	
TEKS: 4.1.A 4.1.B 4.1.C 4.1.D 4.1.E 4.1.F 4.1.G 4.2.F 4.2.G 4.3.C 4.4.D 4.4.H 4.7.A 4.7.B 4.7.C 4.7.D 4.8.C	
ELPS: 1.A 1.E 2.B 2.C 2.D 2.E 2.F 3.F 3.G 3.H 4.A 4.B 4.C 4.E 4.F	
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Solving Problems with Time-Based Data.....	164
Solving Problems with Time Estimates.....	165

Grade 5

Content Overview

In **Topic 1 (Extending Place Value, Addition, and Subtraction with Decimals)** students extend their understanding of the relationship between adjacent place values in whole numbers to decimals. They use this understanding to also extend their strategies for addition and subtraction to decimals, to explore the impact of multiplying and dividing by powers of 10, and to make sense of conversions between topics in the metric system. They extend this understanding of place value and powers of 10 to multiply and divide multidigit whole numbers in **Topic 2 (Extending Multiplication and Division to Multidigit Whole Numbers)** using the standard algorithms.

In **Topic 3 (Exploring Multistep Problems)**, students grow in their ability to interpret, represent, and solve multistep problems using symbolic notation and the convention order of operations. They extend their schema of equivalence to numerical expressions and explore the concept of “simplifying” expressions.

Topic 4 (Exploring Two- and Three-Dimensional Space) challenges students to think about and quantify size in three-dimensions: length (one dimension), area (two dimensions), and volume (three dimensions) while thinking about how the base unit, square unit, and cubic unit are used in each case. They use area and volume as models to identify factors and to understand prime and composite numbers.

The next pair of topics addresses operations with fractions: first addition and subtraction (**Topic 5, Extending Equivalence, Addition, and Subtraction to Fractions**), then multiplication and division (**Topic 6, Extending Multiplication and Division to Fractions**). Addition and subtraction strategies are rooted in conceptual understanding: they can only be added or subtracted if they are expressed with the same-sized parts. In Topic 6, students rely on both interpretations of multiplication (iteration of a fraction or finding the fractional part of another number) and division (dividing a fraction into a whole number of parts, or determining how many fractional parts fit into a whole number).

Topic 7 (Extending Multiplication and Division to Decimals) builds on students’ understanding of operations with both whole numbers and fractions. Students rely on extensions of place value patterns and/or fraction operations to interpret word problems and develop reliable strategies to multiply and divide decimals.

Topic 8 (Expanding Financial Literacy) provides students to practice computation and problem solving with decimals in money contexts while students learn about taxation and budgeting.

In **Topic 9 (Organizing Two-Dimensional Space)**, students expand their understanding of classification and come to understand classification of shapes as hierarchical. They are also introduced to the coordinate plane as a tool for quantifying location in two-dimensions. In **Topic 10 (Exploring Relationships in Data)**, students begin to use the coordinate plane to model inputs and outputs, identify patterns in data and graphs, and interpret them in real-world contexts. They make connections between algebraic and graphical representations, laying a foundation for working with and graphing algebraic equations in the future.

Topic 1: Extending Place Value, Addition, and Subtraction with Decimals

ST Math Objectives: [Decimal Place Value](#), [Rounding Decimals](#), [Comparing with Decimals](#)

TEKS: 5.1.A 5.1.B 5.1.C 5.1.D 5.1.E 5.1.F 5.1.G 5.2.A 5.2.B 5.2.C 5.3.A 5.3.D 5.3.E 5.3.F 5.3.G 5.3.K 5.7.A

ELPS: 1.B 1.C 1.E 1.F 2.A 2.B 2.C 2.D 2.E 2.F 3.C 3.F 3.G 3.H 4.A 4.B 4.C 4.E 4.F

Extending Place Value to Thousandths	7
Representing Decimals in Multiple Forms	8
Investigating Multiplicative Comparisons with Different Unit Wholes	9
Composing and Decomposing Decimals Using Place Value	10
Comparing Decimals with Number Lines	11
Comparing and Ordering Decimals to the Thousandths Place	12
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Adding and Subtracting Decimals with Place Value Strategies	14
Solving Word Problems Involving Decimal Addition and Subtraction	15
Discovering Patterns in Repeated Multiplication and Division by 10	16
Exploring Multiplicative Comparisons with Powers of Ten	17
Converting Between Units of Metric Length	18
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Topic 2: Extending Multiplication and Division to Multidigit Whole Numbers

ST Math Objectives: [Multiplication Algorithm](#), [Whole Number Division](#), [Prime and Composite Numbers](#)

TEKS: 4.1.D 4.1.E 5.1.A 5.1.B 5.1.C 5.1.D 5.1.E 5.1.F 5.1.G 5.3.A 5.3.B 5.3.C 5.3.G 5.7.A

ELPS: 1.C 1.D 1.E 2.A 2.B 2.C 2.D 2.E 2.F 3.D 3.E 3.G 3.H 4.A 4.B 4.C 4.E 4.F

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Exploring Division with Mixed Number Quotients	26
Interpreting Remainders in Context	27
Exploring Division Strategies with One-Digit Divisors	28
Using Place Value Strategies to Divide by Multiples of 10	29
Dividing by Two-Digit Divisors	30
Solving Division Word Problems with Remainders	31
Using Multiples of Two-Digit Divisors to Divide	32
Solving Problems Involving Customary Unit Conversions	33

Topic 3: Exploring Multistep Problems

ST Math Objectives: [Interpret Expressions](#), [Patterns and Relationships](#), [Converting Measurements](#)

TEKS: 5.1.A 5.1.B 5.1.D 5.1.E 5.1.F 5.1.G 5.3.B 5.4.B 5.4.E 5.4.F 5.4.H 5.7.A

ELPS: 1.A 1.D 1.E 1.F 2.E 2.F 3.B 3.D 3.E 3.F 3.H 4.A 4.B 4.C 4.E 4.F

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Solving Multistep Problems with All Four Operations	41
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Choosing Operations to Represent Situations with Equations	43

Topic 4: Exploring Two- and Three-Dimensional Space

ST Math Objectives: [Volume](#), [Shapes and Properties](#), [Prime and Composite Numbers](#)

TEKS: 5.1.A 5.1.B 5.1.C 5.1.D 5.1.E 5.1.F 5.1.G 5.4.A 5.4.F 5.4.G 5.4.H 5.6.A 5.6.B

ELPS: 1.A 1.B 1.E 1.F 2.A 2.B 2.C 2.D 2.E 2.F 3.A 3.B 3.C 3.G 3.H 4.A 4.B 4.C 4.E 4.F

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Using the Base of a Prism to Find Volume	54
Using the Dimensions of a Prism to Find Volume	55
Finding Missing Dimensions of Rectangular Prisms	56
Solving Problems with Rectangular Prisms	57

Topic 5: Extending Equivalence, Addition, and Subtraction to Fractions

ST Math Objectives: [Common Denominators and Equivalent Fractions](#), [Adding and Subtracting Fractions with Unlike Denominators](#), [Patterns and Relationships](#)

TEKS: 5.1.A 5.1.B 5.1.C 5.1.D 5.1.E 5.1.F 5.1.G 5.3.A 5.3.H 5.3.K 5.4.F 5.9.A 5.9.C

ELPS: 1.A 1.B 1.C 1.E 1.F 2.B 2.C 2.D 2.E 2.F 3.A 3.B 3.E 3.F 3.G 3.H 4.A 4.B 4.C 4.E 4.F

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Adding and Subtracting Mixed Numbers with Unrelated Denominators	70
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Topic 6: Extending Multiplication and Division to Fractions

ST Math Objectives: [Fraction Multiplication](#), [Introduction to Fraction Division](#), [Common Denominators and Equivalent Fractions](#)

TEKS: 5.1.A 5.1.B 5.1.C 5.1.D 5.1.E 5.1.F 5.1.G 5.3.A 5.3.C 5.3.H 5.3.I 5.3.J 5.3.L 5.4.B 5.4.F 5.7.A 5.9.A 5.9.C

ELPS: 1.E 2.A 2.B 2.D 2.E 2.F 3.A 3.C 3.F 3.G 3.H 4.A 4.B 4.C 4.E 4.F

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Topic 7: Extending Multiplication and Division to Decimals

ST Math Objectives: [Multiplying with Decimals](#), [Dividing with Decimals](#), [Decimal Place Value](#)

TEKS: 5.1.A 5.1.B 5.1.C 5.1.D 5.1.E 5.1.F 5.1.G 5.2.A 5.3.A 5.3.D 5.3.E 5.3.F 5.3.G 5.3.I 5.3.K 5.4.F 5.4.H 5.7.A

ELPS: 1.A 1.B 1.C 1.D 1.E 1.F 2.A 2.B 2.C 2.D 2.E 2.F 3.A 3.B 3.C 3.D 3.E 3.F 3.G 3.H 4.A 4.B 4.C 4.E 4.F

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Topic 8: Expanding Financial Literacy

ST Math Objectives: [Comparing with Decimals](#), [Multiplying with Decimals](#), [Decimal Place Value](#)

TEKS: 5.1.A 5.1.B 5.1.C 5.1.E 5.1.F 5.1.G 5.10.A 5.10.B 5.10.C 5.10.D 5.10.E 5.10.F 5.3.B 5.3.C 5.3.E 5.3.K

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ST Math Objectives: [The Coordinate Plane](#), [Shapes and Properties](#), [Angles](#)

TEKS: 5.1.A 5.1.B 5.1.C 5.1.D 5.1.E 5.1.F 5.1.G 5.5.A 5.8.A 5.8.B 5.8.C 5.9.C

ELPS: 1.C 1.E 2.B 2.C 2.E 2.F 3.A 3.C 3.F 3.H 4.A 4.B 4.C 4.E 4.F

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Topic 10: Exploring Relationships in Data

ST Math Objectives: [Using Data and Graphs](#), [Patterns and Relationships](#), [Converting Measurements](#)

TEKS: 5.1.A 5.1.B 5.1.C 5.1.D 5.1.E 5.1.F 5.1.G 5.4.C 5.4.D 5.8.C 5.9.A 5.9.B 5.9.C

ELPS: 1.A 1.C 1.D 1.F 2.A 2.B 3.A 3.B 3.D 3.G 3.H 4.A 4.B 4.C 4.D 4.E 4.F

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