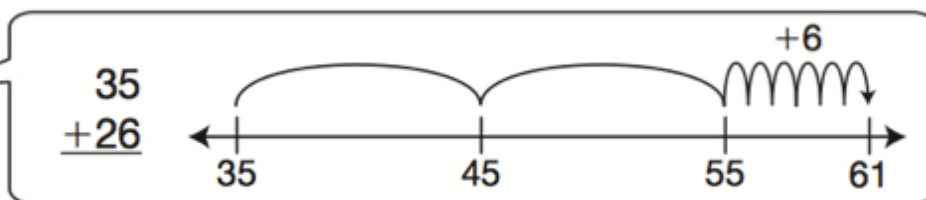


## Grade 2 Unit Overviews



Julia



### Unit 1: Welcome to Second Grade

#### 17–18 Days

Students focus on developing strategies for solving the addition facts including reasoning strategies. Students build on their invented strategies to reason from facts that they know (e.g., make ten, use doubles). They describe strategies used to get to know and then solve a word problem. Students also start a year-long coin-collecting and exchanging activity. They also collect and analyze information about the birth months of their classmates.

Focus on Major Work <sup>i</sup>	
2.OA.A	Represent and solve problems involving addition and subtraction.
2.OA.B	Add and subtract with 20.
2.MD.B	Relate addition and subtraction to length.
Supporting Work	
2.MD.C	Work with time and money.
2.MD.D	Represent and interpret data.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

### Unit 2: Buttons: Sorting and Counting

#### 9–10 Days

Students focus on developing number sense for larger numbers up to 200. They practice estimation and grouping and counting strategies to find the actual quantities of a collection of buttons. Students use counters, number lines, and number charts to represent two- and three-digit numbers.

Focus on Major Work	
2.OA.A	Represent and solve problems involving addition and subtraction.
2.NBT.A	Understand place value.
Supporting Work	
2.MD.D	Represent and interpret data.
Additional Work	
2.G.A	Reason with shapes and their attributes.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

## Unit 3: Exploring Numbers

16–19 Days

Students explore numbers and use mental math and reasoning strategies to solve addition and subtraction problems. They are introduced to the 200 Chart and use it to identify, describe, and use patterns. Students will explore addition and subtraction using the 200 Chart, number lines and manipulatives and solve word problems involving two whole numbers with a sum within 100.

Focus on Major Work	
2.OA.A	Represent and solve problems involving addition and subtraction.
2.OA.B	Add and subtract with 20.
2.NBT.A	Understand place value.
2.NBT.B	Use place value understanding and properties of operations to add and subtract.
2.MD.B	Relate addition and subtraction to length.
Supporting Work	
2.MD.D	Represent and interpret data.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

## Unit 4: Going to Great Lengths

9–14 Days

Students explore measurement concepts using a variety of units of length (palms, footprints, centimeters, inches, meters and yards). They develop a list of measurement rules and compare the relative size of these different units. Students then apply these measurement techniques as they determine “the best roller” in a collection of cars.

Focus on Major Work	
2.NBT.A	Understand place value.
2.MD.A	Measure and estimate lengths in standard units.
2.MD.B	Relate addition and subtraction to length.
Supporting Work	
2.MD.D	Represent and interpret data.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

## Unit 5: Putting Numbers in Their Places

12–14 Days

Students connect the many representations of quantity to place value concepts of two- and three-digit numbers. Students group and count different quantities of objects and partition numbers into hundred, tens, and ones using number lines, charts, and connecting cubes. Students explore the relationship between a container's size, shape, and volume. Students also practice telling time on analog and digital clocks.

Focus on Major Work	
2.NBT.A	Understand place value.
2.MD.A	Measure and estimate lengths in standard units.
Supporting Work	
2.MD.C	Work with time and money.
2.MD.D	Represent and interpret data.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

## Unit 6: Place Value

12–16 Days

Students continue their work with place value of three-digit numbers by using base-ten pieces and base-ten hopppers. Students revisit partitioning numbers into groups of tens and ones to further develop number sense. Students also further explore how to tell time on an analog clock to the nearest five minutes.

Focus on Major Work	
2.NBT.A	Understand place value.
2.MD.A	Measure and estimate lengths in standard units.
2.MD.B	Relate addition and subtraction to length.
Supporting Work	
2.MD.C	Work with time and money.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7	

## Unit 7: Adding Larger Numbers

15–19 Days

Students develop meaningful, accurate, and efficient methods for solving two-digit and three-digit addition problems. Students develop strategies to estimate sums, explore a variety of invented and mental math strategies supported with a variety of tools. Students also develop several addition methods (e.g., all-partials, expanded form, and compact) and compare and contrast them.

Focus on Major Work	
2.OA.A	Represent and solve problems involving addition and subtraction.
2.NBT.A	Understand place value.
2.NBT.B	Use place value understanding and properties of operations to add and subtract.
2.MD.B	Relate addition and subtraction to length.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6	

## Unit 8: Addition Properties and Mass

11–13 Days

Students practice applying and using the addition properties as they explore the concepts and skills of measurement, specifically mass.

Focus on Major Work	
2.OA.A	Represent and solve problems involving addition and subtraction.
2.NBT.A	Understand place value.
2.NBT.B	Use place value understanding and properties of operations to add and subtract.
Supporting Work	
2.OA.C	Work with equal groups of objects to gain foundations for multiplication.
2.MD.C	Work with time and money.
2.MD.D	Represent and interpret data.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

## Unit 9: Subtracting Larger Numbers

16–22 Days

Students use a variety of strategies to solve subtraction problems using a variety of methods and representations. Students apply place-value properties and use mental math strategies to calculate and estimate differences. Students also learn to use paper-and-pencil strategies (e.g., standard algorithm, expanded form) that apply place value concepts to solve subtraction problems.

Focus on Major Work	
2.OA.A	Represent and solve problems involving addition and subtraction.
2.OA.B	Add and subtract with 20.
2.NBT.A	Understand place value.
2.NBT.B	Use place value understanding and properties of operations to add and subtract.
2.MD.B	Relate addition and subtraction to length.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

## Unit 10: Addition Properties Using Volume

9–12 Days

Students explore and apply the associative and commutative properties of addition within the context of finding the volume of buildings built from connecting cubes. Students then apply these properties to solve multistep problems involving addition.

Focus on Major Work	
2.OA.A	Represent and solve problems involving addition and subtraction.
2.NBT.A	Understand place value.
2.NBT.B	Use place value understanding and properties of operations to add and subtract.
Supporting Work	
2.OA.C	Work with equal groups of objects to gain foundations for multiplication.
Additional Work	
2.G.A	Reason with shapes and their attributes.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

## Unit 11: Exploring Volume with Addition and Subtraction

8–10 Days

Students learn to read scales and apply their skills to find the volume of objects using a graduated cylinder. Students solve one- and two-step addition problems and subtraction problems related to the data in the volume lab.

Focus on Major Work	
2.OA.A	Represent and solve problems involving addition and subtraction.
2.NBT.A	Understand place value.
2.NBT.B	Use place value understanding and properties of operations to add and subtract.
2.MD.B	Relate addition and subtraction to length.
Supporting Work	
2.OA.C	Work with equal groups of objects to gain foundations for multiplication.
2.MD.D	Represent and interpret data.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

## Unit 12: Grouping and Sharing

11–12 Days

Students explore multiplication and division concepts. They invent and choose from a variety of strategies such as repeated addition, drawing a picture, organizing arrays, and counting groups. Students also focus on developing strategies for solving multistep problems in multiplication and division situations.

Focus on Major Work	
2.OA.A	Represent and solve problems involving addition and subtraction.
2.OA.B	Add and subtract with 20.
Supporting Work	
2.OA.C	Work with equal groups of objects to gain foundations for multiplication.
Additional Work	
2.G.A	Reason with shapes and their attributes.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

## Unit 13: Reason with Shapes

15–17 Days

Students solve problems involving two, three, and four fair shares using area models and drawings. Students then partition rectangles into equal shares and find the area of shapes that have whole units and parts of units. Students then analyze, sort, and describe the attributes of polygons.

Additional Work	
2.G.A	Reason with shapes and their attributes.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

## Unit 14: Multidigit Addition and Subtraction

### 13–15 Days

Students extend their understanding and strategies for adding and subtracting to solve problems involving multidigit numbers. Students apply place-value properties and use mental math strategies to calculate and estimate differences. Students also learn to use paper-and-pencil strategies (e.g., standard algorithm, expanded form) that apply place value concepts to add and subtract.

Focus on Major Work	
2.OA.A	Represent and solve problems involving addition and subtraction.
2.OA.B	Add and subtract with 20.
2.NBT.A	Understand place value.
2.NBT.B	Use place value understanding and properties of operations to add and subtract.
2.MD.B	Relate addition and subtraction to length.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

## Unit 15: Patterns in Data

### 11–15 Days

Students investigate doubles and halves with function machines and model growth patterns by identifying, describing, and using patterns to make predictions.

Focus on Major Work	
2.OA.A	Represent and solve problems involving addition and subtraction.
2.MD.A	Measure and estimate lengths in standard units.
Supporting Work	
2.OA.C	Work with equal groups of objects to gain foundations for multiplication.
2.MD.D	Represent and interpret data.
Mathematical Practices	
MP1, 2, 3, 4, 5, 6, 7, 8	

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<sup>i</sup> The *K–8 Publisher’s Criteria for the Common Core State Standards for Mathematics* identifies every cluster of standards as being either major work, supporting work, or additional work for its respective grade level. It calls for at least 65% of time to be devoted to the major work of the grade with supporting work and additional work engaging students in the major work of the grade where appropriate. See <http://achievethecore.org/shifts-mathematics> for more information.