

A Correlation of

INVESTIGATIONS

IN NUMBER, DATA, AND SPACE®

©2017



to the

Pennsylvania Core Standards Mathematics (2014) Grades K-5

**A Correlation of Investigations 3 in Number, Data, and Space ©2017
To the Pennsylvania Core Standards - Mathematics**

Introduction

This document demonstrates how *Investigations 3* in Number, Data, and Space, ©2017, aligns to Pennsylvania Core Standards - Mathematics, Grades K-5. Correlation references are to the Sessions of Investigations 3.

Investigations in Number, Data, and Space® 3rd Edition, known as Investigations 3, maintains the standard of excellence as a focused and coherent program that supports students to make sense of mathematical ideas and supports their teachers to make sense of both mathematics content and student thinking.

The guiding principles from *Investigations 2nd* Edition are maintained in *Investigations 3*. These guiding principles follow:

- 1) Students have mathematical ideas and are given the opportunity to learn in an environment that focuses on making sense of mathematics. Students build on the ideas they already have and learn about new mathematics they have never encountered.
- 2) Teachers are engaged in ongoing learning about mathematics content, pedagogy, and student learning.
- 3) Teachers collaborate with the students and use the curriculum to maintain a clear, focused, and coherent agenda for mathematics teaching.

Investigations 3 ensures that its instructional approach works in a wide variety of classrooms. It maintains full availability for classrooms that use print materials and provides access to digital enhancements for both teachers and students in classrooms with regular or periodic access to those technologies.

Investigations 3 offers digital tools and technologies to enhance its research-based, field tested, and proven instructional model. These tools provide teachers with easy access to the professional development materials that are a hallmark of the program, support classroom management tasks, and help students capture and share their work.

Core program resources for teaching and learning will be made available on Savvas' latest learning management system, Savvas Realize™.

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Kindergarten Units

Unit 1 - Counting People, Sorting Buttons

Unit 2 - Counting Quantities, Comparing Lengths

Unit 3 - Make a Shape, Fill a Hexagon

Unit 4 - Collect, Count and Measure

Unit 5 - Build a Block, Build a Wall

Unit 6 - How Many Now?

Unit 7 - How Many Noses? How Many Eyes?

Unit 8 - Ten Frames and Teen Numbers

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Pennsylvania Core Standards For Mathematics Kindergarten	Investigations 3 in Number, Data, and Space ©2017 Kindergarten
2.1.K Numbers and Operations	
A) Counting and Cardinality	
CC.2.1.K.A.1 Know number names and write and recite the count sequence.	Unit 1: 1.1, 1.4, 1.5, 2.2, 2.3, 2.5, 3.1, 3.2, 3.4, 3.5, 3.6 Unit 2: 1.1, 1.2, 1.4, 1.5, 1.7, 1.9, 1.10, 2.1, 2.3, 2.5, 2.7, 2.9, 2.11, 2.12 Unit 3: 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7 Unit 4: 1.1, 1.3, 1.5, 1.6, 1.7, 1.10, 2.1, 2.2, 2.4, 2.6, 2.7, 3.2, 3.4, 3.6 Unit 5: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10 Unit 6: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.2, 2.4, 2.5, 2.7, 2.8, 3.2, 3.4, 3.5, 3.6 Unit 7: 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8 Unit 8: 1.1, 1.4, 1.6, 1.7, 2.2, 2.4, 2.5, 2.7, 2.10, 3.1, 3.2, 3.3, 3.4, 3.5
CC.2.1.K.A.2 Apply one-to-one correspondence to count the number of objects.	Unit 1: 1.1, 1.2, 1.4, 1.5, 2.1, 2.3, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 2: 1.1, 1.3, 1.4, 1.6, 1.7, 1.9, 1.10, 2.1, 2.2, 2.5, 2.6, 2.7, 2.9, 2.11, 2.12 Unit 3: 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7 Unit 4: 1.2, 1.4, 1.6, 1.10, 2.1, 2.3, 2.5, 2.7, 3.1, 3.2, 3.3, 3.6 Unit 5: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10 Unit 6: 1.1, 1.3, 1.5, 1.6, 2.2, 2.3, 2.4, 2.6, 2.8, 3.1, 3.2, 3.3, 3.5, 3.6 Unit 7: 1.2, 1.3, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8 Unit 8: 1.1, 1.2, 1.4, 1.5, 1.7, 2.1, 2.4, 2.6, 2.8, 2.10, 3.1, 3.4, 3.5
CC.2.1.K.A.3 Apply the concept of magnitude to compare numbers and quantities.	Unit 1: 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 2: 1.2, 1.3, 1.5, 1.6, 1.7, 1.8, 1.10, 2.1, 2.3, 2.5, 2.7, 2.12 Unit 3: 1.1, 1.2, 1.4, 1.5, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7 Unit 4: 1.1, 1.3, 1.5, 1.7, 1.10, 2.1, 2.2, 2.4, 2.7, 3.1, 3.2, 3.3, 3.6 Unit 5: 1.1, 1.2, 1.3, 1.4, 1.5, 1.7, 1.8, 1.9, 1.10 Unit 6: 1.1, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3, 2.4, 2.6, 3.2, 3.4, 3.5

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Pennsylvania Core Standards For Mathematics Kindergarten	Investigations 3 in Number, Data, and Space ©2017 Kindergarten
(Continued) CC.2.1.K.A.3 Apply the concept of magnitude to compare numbers and quantities.	Unit 7: 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.8 Unit 8: 1.4, 1.5, 1.6, 1.7, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.10, 3.1, 3.2, 3.3, 3.4, 3.5
B) Numbers and Operations in Base Ten	
CC.2.1.K.B.1 Use place value to compose and decompose numbers within 19.	Unit 5: 1.4 Unit 6: 1.4, 2.4, 3.5 Unit 7: 1.3 Unit 8: 1.4, 2.5, 2.6, 2.8, 2.9, 2.10, 3.1, 3.2, 3.3, 3.4, 3.5
2.2.K Algebraic Concepts	
A) Operations and Algebraic Thinking	
CC.2.2.K.A.1 Extend the concepts of putting together and taking apart to add and subtract within 10.	Unit 2: 2.9 Unit 3: 1.4, 2.4 Unit 4: 1.6, 1.7, 1.8, 1.9, 1.10, 2.2, 2.4, 2.6, 3.3, 3.5, 3.6 Unit 5: 1.1, 1.2, 1.3, 1.5, 1.7, 1.8, 1.9 Unit 6: 1.1, 1.3, 1.5, 2.2, 2.5, 2.6, 2.8, 3.1, 3.2, 3.3, 3.5, 3.6 Unit 7: 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.2, 3.4, 3.5, 3.7, 3.8 Unit 8: 1.1, 1.3, 1.5, 1.7, 2.2, 2.4, 2.6, 2.8, 2.10, 3.1, 3.4, 3.5
2.3.K Geometry	
A) Geometry	
CC.2.3.K.A.1 Identify and describe two- and three-dimensional shapes.	Unit 3: 1.1, 1.4, 1.5, 2.1, 2.2, 2.4, 2.6, 2.7 Unit 5: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10
CC.2.3.K.A.2 Analyze, compare, create, and compose two- and three-dimensional shapes.	Unit 1: 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 3: 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7 Unit 4: 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 5: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10 Unit 7: 1.1, 1.2, 1.3, 1.4, 2.2, 2.3, 3.2

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2.4.K Measurement, Data, and Probability	
A) Measurement and Data	
<p>CC.2.4.K.A.1 Describe and compare attributes of length, area, weight, and capacity of everyday objects. (Continued)</p> <p>CC.2.4.K.A.1 Describe and compare attributes of length, area, weight, and capacity of everyday objects.</p>	<p>Unit 2: 2.1, 2.2, 2.3, 2.4, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12</p> <p>Unit 4: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8</p> <p>Unit 6: 1.1, 1.2, 1.3</p> <p>Unit 8: 2.3, 2.4, 2.6, 3.1, 3.2, 3.5</p>
<p>CC.2.4.K.A.4 Classify objects and count the number of objects in each category.</p>	<p>Unit 1: 3.1, 3.3, 3.4, 3.5, 3.6</p> <p>Unit 2: 1.6, 1.9, 2.1, 2.2, 2.3, 2.4, 2.5, 2.8, 2.12</p> <p>Unit 3: 1.2, 1.3, 1.5, 2.3, 2.6</p> <p>Unit 4: 1.1, 1.4, 1.7, 1.10, 2.3, 2.6, 3.2, 3.6</p> <p>Unit 5: 1.1, 1.2, 1.3, 1.7</p> <p>Unit 6: 1.1, 1.5, 1.6, 2.1, 2.6, 3.2</p> <p>Unit 7: 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.2, 3.3, 3.4, 3.5, 3.6, 3.8</p> <p>Unit 8: 1.6, 1.7, 2.6, 3.2</p>
Math Practices	
1. Make sense of problems and persevere in solving them.	<p>Unit 1: 1.1, 1.2, 1.5, 2.1, 2.3, 3.1, 3.2, 3.4</p> <p>Unit 7: 1.1, 1.2, 2.1, 2.2, 2.3, 3.1, 3.2, 3.4, 3.8</p>
2. Reason abstractly and quantitatively.	<p>Unit 4: 1.2, 1.3, 1.5, 1.6, 2.2, 2.3, 3.3, 3.4, 3.5, 3.6</p> <p>Unit 7: 1.1, 1.2, 1.4, 2.2, 3.3, 3.4, 3.5, 3.7, 3.8</p>
3. Construct viable arguments and critique the reasoning of others.	<p>Unit 5: 1.2, 1.3, 1.4, 1.6, 1.7, 1.9, 1.10</p> <p>Unit 6: 1.1, 1.4, 1.5, 1.6, 2.2, 2.6, 3.2, 3.5, 3.6</p>
4. Model with mathematics.	<p>Unit 2: 1.1, 1.3, 1.4, 1.9, 2.1, 2.6, 2.11, 2.12</p> <p>Unit 5: 1.1, 1.2, 1.7, 1.9, 1.10</p>
5. Use appropriate tools strategically.	<p>Unit 1: 1.1, 1.4, 1.5, 2.1, 2.4</p> <p>Unit 6: 1.1, 1.2, 1.3, 1.6, 2.3, 2.4, 2.6, 2.7, 2.8, 3.1, 3.3, 3.5, 3.6</p>
6. Attend to precision.	<p>Unit 3: 1.1, 1.2, 1.3, 1.4, 2.2, 2.3, 2.5, 2.6, 2.7</p> <p>Unit 4: 1.1, 1.2, 1.3, 1.5, 1.6, 1.8, 2.1, 2.4, 3.2, 3.3, 3.5, 3.6</p>

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<p style="text-align: center;">Pennsylvania Core Standards For Mathematics Kindergarten</p>	<p style="text-align: center;">Investigations 3 in Number, Data, and Space ©2017 Kindergarten</p>
<p>7. Look for and make use of structure.</p>	<p>Unit 3: 1.2, 2.1, 2.2, 2.3, 2.5, 2.6, 2.7 Unit 8: 1.1, 1.2, 1.4, 1.5, 2.2, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 3.1, 3.4, 3.5</p>
<p>8. Look for and express regularity in repeated reasoning.</p>	<p>Unit 2: 1.1, 1.3, 1.6, 2.1, 2.11, 2.12 Unit 8: 2.1, 2.3, 2.5, 2.9, 2.10, 3.4, 3.5</p>

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Grade 1 Units

Unit 1 - Building Numbers and Solving Story Problems

Unit 2 - Comparing and Combining Shapes

Unit 3 - How Many of Each? How Many in All

Unit 4 - Fish Lengths and Fraction Rugs

Unit 5 - Number Games and Crayon Problems

Unit 6 - Would You Rather Be an Eagle or a Whale?

Unit 7 - How Many Tens? How Many Ones?

Unit 8 - Blocks and Buildings

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2.1.1 Numbers and Operations	
B) Numbers and Operations in Base Ten	
CC.2.1.1.B.1 Extend the counting sequence to read and write numerals to represent objects.	Unit 1: 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.4, 2.8, 3.6, 3.7 Unit 2: 1.1, 1.2, 1.5, 1.7, 2.2, 2.3 Unit 3: 1.2, 2.2, 2.6, 3.3, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.8 Unit 7: 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 2.1, 2.2, 2.3, 2.5, 2.6, 2.8, 3.1, 3.3, 3.5, 3.6, 3.8
CC.2.1.1.B.2 Use place-value concepts to represent amounts of tens and ones and to compare two digit numbers.	Unit 1: 1.3, 1.4, 1.5, 2.1, 2.6, 3.6, 3.7 Unit 2: 1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 2.2, 2.5 Unit 3: 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 2.8, 3.3, 3.4, 3.5, 4.1, 4.2, 4.4, 4.6, 4.7, 4.8 Unit 4: 2.3 Unit 5: 1.4, 1.6, 2.1, 2.2, 2.3, 2.6, 3.3, 3.4, 3.5 Unit 6: 1.1, 1.2, 1.4, 1.6, 1.7, 1.9 Unit 7: 1.3, 1.4, 1.6, 1.8, 2.1, 2.4, 2.6, 2.8, 3.1, 3.3, 3.5, 3.6, 3.8
CC.2.1.1.B.3 Use place-value concepts and properties of operations to add and subtract within 100.	Unit 7: 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 2.1, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8 Unit 8: 1.6
2.2.1 Algebraic Concepts	
A) Operations and Algebraic Thinking	
CC.2.2.1.A.1 Represent and solve problems involving addition and subtraction within 20.	Unit 1: 2.2, 2.3, 2.4, 2.6, 2.8, 3.1, 3.3, 3.4, 3.5, 3.6, 3.7 Unit 2: 1.1, 1.3, 1.4 Unit 3: 2.1, 2.3, 2.4, 2.6, 2.7, 2.8, 3.1, 3.3, 3.5, 3.6, 4.8 Unit 4: 1.5, 1.6, 1.7, 1.8, 2.6 Unit 5: 1.1, 1.4, 1.5, 1.7, 1.8, 2.1, 2.2, 2.3, 2.5, 2.6, 2.8, 3.1, 3.3, 3.4, 3.6, 3.7 Unit 6: 1.3, 1.5, 1.8, 2.2, 2.3 Unit 7: 1.1, 1.2, 1.3, 3.2, 3.4, 3.6
CC.2.2.1.A.2 Understand and apply properties of operations and the relationship between addition and subtraction.	Unit 1: 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7 Unit 2: 1.3 Unit 3: 1.1, 1.3, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 3.1, 3.3, 3.4, 3.6, 4.8 Unit 4: 1.5, 1.6, 1.7, 1.8, 2.6 Unit 5: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 2.1, 2.4, 2.5, 2.7, 2.8, 3.1, 3.2, 3.3, 3.5, 3.7 Unit 6: 1.3, 1.5, 1.8, 2.2, 2.3

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2.3.1 Geometry	
A) Geometry	
CC.2.3.1.A.1 Compose and distinguish between two- and three-dimensional shapes based on their attributes.	Unit 1: 1.1, 1.2, 1.3, 1.4, 1.5 Unit 2: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.1, 2.2, 2.3, 2.4, 2.5 Unit 4: 1.8, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 Unit 8: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9
CC.2.3.1.A.2 Use the understanding of fractions to partition shapes into halves and quarters.	Unit 4: 1.8, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 Unit 5: 2.3 Unit 8: 1.8
2.4.1 Measurement, Data, and Probability	
A) Measurement and Data	
CC.2.4.1.A.1 Order lengths and measure them both indirectly and by repeating length units.	Unit 4: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7
CC.2.4.1.A.2 Tell and write time to the nearest half hour using both analog and digital clocks.	Unit 1: 1.4, 2.3 Unit 3: 1.4, 2.7, 4.3 Unit 4: 1.1, 1.2, 1.3, 1.5, 1.7, 2.1, 2.5, 2.6 Unit 5: 1.1, 1.2, 1.7, 2.4, 2.5, 2.8, 3.2 Unit 6: 1.6, 2.1 Unit 7: 2.1, 2.3, 3.3, 3.7 Unit 8: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6
CC.2.4.1.A.4 Represent and interpret data using tables/charts.	Unit 1: 1.5 Unit 2: 2.1, 2.2, 2.3, 2.4 Unit 3: 4.1 Unit 6: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.1, 2.2, 2.3
Math Practices	
1. Make sense of problems and persevere in solving them.	Unit 1: 1.1, 1.2, 2.3, 2.4, 2.7, 2.8, 3.1, 3.2, 3.4, 3.6, 3.7 Unit 6: 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.1, 2.2
2. Reason abstractly and quantitatively.	Unit 3: 1.1, 1.2, 2.1, 2.2, 2.4, 2.5, 2.6, 2.7, 3.1, 3.2, 3.5 Unit 7: 1.1, 1.3, 1.6, 1.7, 1.8, 2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 2.8, 3.1, 3.2, 3.6
3. Construct viable arguments and critique the reasoning of others.	Unit 2: 1.4, 1.5, 1.6, 1.7, 2.1, 2.2, 2.3, 2.4 Unit 5: 1.1, 1.4, 2.1, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 3.1, 3.5

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4. Model with mathematics.	Unit 4: 1.1, 1.2, 1.3, 1.5, 1.6, 2.1, 2.2, 2.3, 2.4 Unit 6: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2
5. Use appropriate tools strategically.	Unit 2: 1.1, 1.6, 1.7, 2.2, 2.3, 2.4 Unit 4: 1.2, 1.3, 1.4, 1.5, 1.6, 1.7
6. Attend to precision.	Unit 3: 1.2, 2.2, 2.4, 2.5, 2.8, 3.1, 3.2, 3.4, 4.1 Unit 8: 1.1, 1.2, 1.3, 1.5, 1.6
7. Look for and make use of structure.	Unit 5: 1.2, 1.4, 2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 2.8, 3.1, 3.3 Unit 8: 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8
8. Look for and express regularity in repeated reasoning.	Unit 1: 1.2, 1.4, 2.2, 2.4, 2.5, 2.6, 2.7, 3.1, 3.2, 3.3, 3.4, 3.5 Unit 7: 1.2, 1.4, 2.2, 2.3, 2.5, 2.6, 2.7, 3.1, 3.3, 3.4, 3.5, 3.6, 3.7

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Grade 2 Units

Unit 1 - Coins, Numbers Strings, and Story Problem

Unit 2 - Attributes of Shapes and Parts of a Whole

Unit 3 - How Many Stickers? How Many Cents?

Unit 4 - Pockets, Teeth, and Guess My Rule

Unit 5 - How Many Tens? How Many Hundreds?

Unit 6 - How Far Can You Jump?

Unit 7 - Partners, Teams, and Other Groups

Unit 8 - Enough for the Class? Enough for the Grade?

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Pennsylvania Core Standards For Mathematics Grade 2	Investigations 3 in Number, Data, and Space ©2017 Grade 2
2.1.2 Numbers and Operations	
B) Numbers and Operations in Base Ten	
CC.2.1.2.B.1 Use place-value concepts to represent amounts of tens and ones and to compare three digit numbers.	Unit 3: 1.4, 1.5, 1.6, 1.7, 1.8, 2.4, 3.2, 3.3, 3.5, 3.6 Unit 5: 1.5, 1.6, 2.2, 2.3, 2.4, 2.5, 2.6, 3.2, 3.5, 3.6, 3.7, 3.8 Unit 6: 1.1, 1.2, 1.4, 1.5, 2.2 Unit 7: 1.1, 2.1, 2.3 Unit 8: 1.11, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9
CC.2.1.2.B.2 Use place-value concepts to read, write, and skip count to 1000.	Unit 1: 1.4, 1.5, 1.6, 2.4, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7 Unit 2: 2.3 Unit 3: 1.5, 1.6, 1.7, 1.8, 3.3, 3.4, 3.5, 3.6, 3.7 Unit 4: 1.5, 2.2 Unit 5: 1.2, 2.2, 2.3, 2.4, 2.5, 2.6, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 6: 1.1, 1.2, 1.4, 1.5, 2.2 Unit 7: 1.1, 1.4, 2.1, 2.2, 2.3, 2.4 Unit 8: 2.1, 2.2, 2.3, 2.4, 2.5, 2.9
CC.2.1.2.B.3 Use place-value understanding and properties of operations to add and subtract within 1000.	Unit 1: 2.4, 2.7, 3.6 Unit 2: 3.4 Unit 3: 1.4, 1.5, 1.6, 1.7, 1.8, 2.3, 2.5, 2.7, 2.9, 3.1, 3.3, 3.5, 3.7 Unit 4: 1.1, 2.5 Unit 5: 1.1, 1.2, 1.4, 1.5, 1.6, 2.1, 2.3, 2.5, 2.6, 3.1, 3.2, 3.3, 3.5, 3.7, 3.8 Unit 6: 1.1, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 Unit 7: 1.1, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 Unit 8: 1.1, 1.2, 1.3, 1.4, 1.5, 1.7, 1.9, 1.11, 2.1, 2.3, 2.5, 2.6, 2.8, 2.9
2.2.2 Algebraic Concepts	
A) Operations and Algebraic Thinking	
CC.2.2.2.A.1 Represent and solve problems involving addition and subtraction within 100.	Unit 1: 2.3, 2.4, 3.1, 3.3, 3.4, 3.6, 3.7, 4.1, 4.2, 4.3, 4.4, 4.5 Unit 2: 1.3, 1.4, 2.1, 3.1, 3.3 Unit 3: 1.2, 1.3, 1.4, 1.6, 1.8, 2.2, 2.4, 2.6, 2.9, 3.1, 3.4, 3.6, 3.7 Unit 4: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.6 Unit 5: 1.3, 1.5, 1.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8 Unit 6: 1.2, 1.3, 1.5, 1.6, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 Unit 7: 1.1, 1.3, 1.4, 2.3, 2.5 Unit 8: 1.1, 1.2, 1.3, 1.7, 1.9, 1.11, 2.1, 2.3, 2.5, 2.6, 2.7

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Pennsylvania Core Standards For Mathematics Grade 2	Investigations 3 in Number, Data, and Space ©2017 Grade 2
CC.2.2.2.A.2 Use mental strategies to add and subtract within 20.	Unit 1: 1.1, 1.4, 1.5, 2.2, 2.4, 2.5, 2.8, 3.2, 3.4, 3.7, 4.2, 4.4, 4.5 Unit 2: 1.1, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1 Unit 3: 1.1, 1.3, 1.4, 1.6, 1.7, 1.8, 2.2, 2.7, 2.8, 3.2, 3.3, 3.5, 3.6, 3.7 Unit 4: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.4, 2.5, 2.6 Unit 5: 1.1, 1.3, 1.5, 1.6, 2.1, 2.3, 3.3, 3.7 Unit 6: 1.6, 2.3, 2.6 Unit 7: 1.1, 1.3, 2.1, 2.3, 2.5, 2.6 Unit 8: 1.2, 1.3, 1.5, 1.9, 1.11, 2.1, 2.3, 2.5, 2.7, 2.8
CC.2.2.2.A.3 Work with equal groups of objects to gain foundations for multiplication.	Unit 7: 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6
2.3.2 Geometry	
A) Geometry	
CC.2.3.2.A.1 Analyze and draw two- and three-dimensional shapes having specified attributes.	Unit 1: 1.2, 1.3, 1.4, 1.5 Unit 2: 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1
CC.2.3.2.A.2 Use the understanding of fractions to partition shapes into halves, quarters, and thirds.	Unit 2: 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8 Unit 7: 2.2, 2.4, 2.6
2.4.2 Measurement, Data, and Probability	
A) Measurement and Data	
CC.2.4.2.A.1 Measure and estimate lengths in standard units using appropriate tools.	Unit 6: 1.4, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6
CC.2.4.2.A.2 Tell and write time to the nearest five minutes using both analog and digital clocks.	Unit 1: 1.6, 2.1 Unit 2: 1.3, 2.2, 3.7, 3.8 Unit 3: 2.4, 2.9, 3.4, 3.6 Unit 4: 1.3, 1.6, 2.3 Unit 5: 1.1, 1.6, 3.1 Unit 6: 1.1, 1.3, 2.5 Unit 7: 1.2, 1.4, 2.3, 2.4, 2.5 Unit 8: 1.1, 1.4, 1.7, .8, 1.9
CC.2.4.2.A.3 Solve problems and make change using coins and paper currency with appropriate symbols.	Unit 1: 1.3, 1.4, 3.3, 3.4, 3.5, 3.6, 3.7 Unit 2: 1.1 Unit 3: 1.3, 1.4, 1.5, 2.5, 2.7, 2.8, 2.9, 3.1, 3.2 Unit 4: 2.6 Unit 5: 1.4, 1.5, 1.6, 2.2 Unit 8: 1.4, 1.5, 1.6, 1.7, 1.9, 1.10, 1.11, 2.6, 2.9

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Pennsylvania Core Standards For Mathematics Grade 2	Investigations 3 in Number, Data, and Space ©2017 Grade 2
CC.2.4.2.A.4 Represent and interpret data using line plots, picture graphs, and bar graphs.	Unit 4: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 Unit 6: 1.4, 1.6, 2.4, 2.5
CC.2.4.2.A.6 Extend the concepts of addition and subtraction to problems involving length.	Unit 6: 1.5, 1.6, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6
Math Practices	
1. Make sense of problems and persevere in solving them.	Unit 1: 1.1, 1.2, 1.4, 2.1, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 4.1, 4.2 Unit 8: 1.1, 1.3, 1.5, 1.6, 1.7, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8
2. Reason abstractly and quantitatively.	Unit 3: 1.2, 1.5, 1.6, 1.7, 1.8, 2.3, 2.4, 2.6, 2.7, 2.8, 3.1, 3.2, 3.3, 3.4, 3.7 Unit 7: 1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6
3. Construct viable arguments and critique the reasoning of others.	Unit 2: 1.1, 1.2, 1.3, 2.2, 3.1, 3.2, 3.3, 3.4, 3.5 Unit 7: 1.2, 1.3, 1.4, 2.1, 2.3, 2.6
4. Model with mathematics.	Unit 4: 1.1, 1.4, 1.5, 1.6, 2.3, 2.4, 2.5, 2.6 Unit 5: 1.3, 1.5, 1.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7
5. Use appropriate tools strategically.	Unit 3: 1.1, 1.2, 1.4, 1.5, 1.6, 1.7, 1.8, 2.3, 2.4, 2.6, 2.7, 2.8, 3.1, 3.2, 3.3, 3.4, 3.7 Unit 6: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3, 2.4, 2.5
6. Attend to precision.	Unit 4: 1.1, 1.4, 1.5, 1.6, 2.4, 2.6 Unit 6: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.4
7. Look for and make use of structure.	Unit 2: 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.3, 2.5, 3.5 Unit 5: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7
8. Look for and express regularity in repeated reasoning.	Unit 1: 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.6, 2.7, 2.8, 3.2, 3.5, 4.2 Unit 8: 1.2, 1.3, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11, 2.4, 2.5, 2.7, 2.8

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Grade 3 Units

Unit 1 - Understanding Equal Groups

Unit 2 Graphs and Line Plots

Unit 3 - Travel Stories and Collections

Unit 4 - Perimeter, Area, and Polygons

Unit 5 - Cube Patterns, Arrays, and Multiples of 10

Unit 6 - Fair Shares and Fractions on Number Lines

Unit 7 - How Many Miles?

Unit 8 Larger Numbers and Multi-Step Problems

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Pennsylvania Core Standards For Mathematics Grade 3	Investigations 3 in Number, Data, and Space ©2017 Grade 3
2.1.3 Numbers and Operations	
B) Numbers and Operations in Base Ten	
CC.2.1.3.B.1 Apply place-value understanding and properties of operations to perform multi-digit arithmetic. (M03.A-T.1.1.1, M03.A-T.1.1.2, M03.A-T.1.1.3, M03.A-T.1.1.4)	Unit 1: 2.4, 2.5, 3.1, 3.2, 3.3, 3.4, 3.7, 4.3, 4.4, 4.5, 4.6 Unit 2: 1.2, 1.6, 1.9, 2.1, 2.2, 2.3, 2.4 Unit 3: 1.1, 1.3, 1.5, 2.2, 2.3, 2.4, 3.2, 3.3, 3.5, 4.1, 4.4, 4.5, 5.1, 5.2, 5.4, 5.6 Unit 4: 1.1, 1.2, 1.3, 2.1, 2.2, 2.4, 2.6, 3.1, 3.2, 3.3, 3.5 Unit 5: 1.1, 1.3, 1.4, 1.5, 2.1, 2.2, 2.5, 3.1, 3.2, 3.4, 3.5 Unit 6: 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4 Unit 7: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.4, 3.5, 3.6 Unit 8: 1.1, 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3
C) Numbers and Operations—Fractions	
CC.2.1.3.C.1 Explore and develop an understanding of fractions as numbers. (M03.A-F.1.1.1, M03.A-F.1.1.2, M03.A-F.1.1.3, M03.A-F.1.1.4, M03.A-F.1.1.5)	Unit 6: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 2.1, 2.2, 2.3, 2.4, 2.5 Unit 7: 1.3, 1.4, 1.5, 2.4, 3.5 Unit 8: 3.4
2.2.3 Algebraic Concepts	
A) Operations and Algebraic Thinking	
CC.2.2.3.A.1 Represent and solve problems involving multiplication and division. (M03.B-O.1.1.1, M03.B-O.1.1.2, M03.B-O.1.2.1, M03.B-O.1.2.2)	Unit 1: 1.1, 1.3, 1.4, 2.2, 2.4, 2.6, 3.3, 3.5, 3.7, 4.1, 4.3, 4.6 Unit 2: 1.1, 1.2, 1.8, 2.6 Unit 3: 2.2, 5.1 Unit 4: 2.3 Unit 5: 1.1, 1.2, 1.3, 1.4, 1.5, 2.2, 2.4, 2.5, 2.6, 3.1, 3.3, 3.4, 3.5, 3.6 Unit 6: 1.2, 1.5, 1.7, 2.1, 2.3, 2.5 Unit 7: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.1, 2.2, 2.3 Unit 8: 1.1, 1.3, 1.4, 1.5, 1.6, 2.1, 2.3, 2.4, 2.5, 3.3, 3.5
CC.2.2.3.A.2 Understand properties of multiplication and the relationship between multiplication and division. (M03.B-O.2.1.1, M03.B-O.2.1.2, M03.B-O.2.2.1)	Unit 1: 2.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.4, 3.5, 3.6, 3.7, 4.1, 4.2, 4.4, 4.5, 4.6 Unit 5: 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.3, 3.4 Unit 7: 2.1, 2.2, 2.3 Unit 8: 1.1, 1.2, 1.3, 1.6, 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3, 3.4

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Pennsylvania Core Standards For Mathematics Grade 3	Investigations 3 in Number, Data, and Space ©2017 Grade 3
CC.2.2.3.A.3 Demonstrate multiplication and division fluency.	Unit 1: 2.2, 3.3, 3.4, 3.5, 3.6, 3.7, 4.5, 4.6 Unit 2: 2.6 Unit 3: 2.2, 3.1, 3.2, 3.3, 3.4, 5.1 Unit 4: 2.3 Unit 5: 1.1, 1.2, 1.4, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 6: 1.2, 1.5, 2.1, 2.2, 2.3 Unit 8: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3, 2.4, 2.5, 3.5
CC.2.2.3.A.4 Solve problems involving the four operations, and identify and explain patterns in arithmetic. (M03.B-O.3.1.1, M03.B-O.3.1.2, M03.B-O.3.1.3, M03.B-O.3.1.4, M03.B-O.3.1.5, M03.B-O.3.1.6, M03.B-O.3.1.7)	Unit 1: 1.3, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.5, 3.6, 3.7, 4.5 Unit 2: 1.5 Unit 3: 1.4, 2.1, 2.4, 4.4, 5.6 Unit 4: 1.3, 1.4, 1.5 Unit 5: 1.1, 1.2, 1.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 6: 1.1, 2.1, 2.5 Unit 7: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.4, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 8: 2.4, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5
2.3.3 Geometry	
A) Geometry	
CC.2.3.3.A.1 Identify, compare, and classify shapes and their attributes. (M03.C-G.1.1.1, M03.C-G.1.1.2)	Unit 4: 3.3, 3.4, 3.5
CC.2.3.3.A.2 Use the understanding of fractions to partition shapes into parts with equal areas and express the area of each part as a unit fraction of the whole. (M03.C-G.1.1.3)	Unit 6: 1.1, 1.2, 1.3, 1.4, 1.7, 1.8, 2.5
2.4.3 Measurement, Data, and Probability	
A) Measurement and Data	
CC.2.4.3.A.1 Solve problems involving measurement and estimation of temperature, liquid volume, mass, and length. (M03.D-M.1.2.1, M03.D-M.1.2.2, M03.D-M.1.2.3)	Unit 7: 1.1, 1.2, 1.4, 1.5, 1.6, 1.7, 2.2 Unit 8: 1.4, 3.2
CC.2.4.3.A.2 Tell and write time to the nearest minute and solve problems by calculating time intervals. (M03.D-M.1.1.1, M03.D-M.1.1.2)	Unit 3: 4.4, 4.5, 5.1, 5.4, 5.5, 5.6 Unit 6: 1.6, 1.7, 1.8, 2.4, 2.5 Unit 8: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 3.4, 3.5

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CC.2.4.3.A.3 Solve problems and make change involving money using a combination of coins and bills. (M03.D-M.1.3.1, M03.D-M.1.3.2, M03.D-M.1.3.3)	Unit 1: 1.1 Unit 3: 1.3, 3.1 Unit 7: 1.5, 2.1, 3.3, 3.5, 3.6
CC.2.4.3.A.4 Represent and interpret data using tally charts, tables, pictographs, line plots, and bar graphs. (M03.D-M.2.1.1, M03.D-M.2.1.2, M03.D-M.2.1.3, M03.D-M.2.1.4)	Unit 2: 1.1, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.5, 2.6 Unit 3: 1.1 Unit 8: 3.2
CC.2.4.3.A.5 Determine the area of a rectangle and apply the concept to multiplication and to addition. (M03.D-M.3.1.1, M03.D-M.3.1.2)	Unit 1: 3.1, 3.3, 3.4, 3.5 Unit 4: 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 3.5 Unit 5: 1.2, 2.1, 2.2, 2.6 Unit 8: 2.2
CC.2.4.3.A.6 Solve problems involving perimeters of polygons and distinguish between linear and area measures. (M03.D-M.4.1.1)	Unit 4: 1.1, 1.2, 1.3, 1.4, 1.5, 2.4, 3.4, 3.5
Math Practices	
1. Make sense of problems and persevere in solving them.	Unit 1: 1.1, 1.3, 1.4, 2.3, 2.4, 2.5, 4.6 Unit 7: 1.4, 1.5, 1.6, 1.7, 3.1, 3.4, 3.5
2. Reason abstractly and quantitatively.	Unit 3: 1.2, 1.3, 1.4, 3.1, 4.2, 5.3, 5.5 Unit 5: 1.2, 2.1, 2.3, 3.4, 3.5
3. Construct viable arguments and critique the reasoning of others.	Unit 4: 2.2, 2.3, 2.5, 2.6, 2.7, 3.2, 3.3 Unit 7: 1.5, 1.6, 1.7, 2.1, 2.5, 3.3, 3.4
4. Model with mathematics.	Unit 2: 1.1, 1.5, 1.6, 1.9, 2.1, 2.2, 2.5 Unit 6: 1.1, 1.3, 1.4, 1.8, 2.2, 2.3, 2.4
5. Use appropriate tools strategically.	Unit 2: 1.2, 1.4, 1.5, 1.7, 2.1, 2.2, 2.5 Unit 6: 1.2, 1.4, 1.5, 2.3, 2.4
6. Attend to precision.	Unit 4: 1.2, 1.3, 2.6, 2.7 Unit 8: 1.2, 1.5, 1.6, 2.5, 3.2, 3.3
7. Look for and make use of structure.	Unit 3: 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 3.2, 3.3, 3.4, 4.2, 5.2, 5.4, 5.5 Unit 5: 1.1, 1.5, 2.1, 2.2, 2.5, 2.6, 3.2, 3.5
8. Look for and express regularity in repeated reasoning.	Unit 1: 2.2, 3.2, 3.3, 3.4 Unit 8: 1.2, 3.1, 3.2, 3.3, 3.5

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Grade 4 Units

Unit 1 - Arrays, Factors, and Multiplicative Comparison

Unit 2 - Generating and Representing Measurement Data

Unit 3 - Multiple Towers and Cluster Problems

Unit 4 - Measuring and Classifying Shapes

Unit 5 - Large Numbers and Landmarks

Unit 6 - Fraction Cards and Decimal Grids

Unit 7 - How Many Packages and Groups?

Unit 8 - Penny Jars and Towers

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Pennsylvania Core Standards For Mathematics Grade 4	Investigations 3 in Number, Data, and Space ©2017 Grade 4
2.1.4 Numbers and Operations	
B) Numbers and Operations in Base Ten	
CC.2.1.4.B.1 Apply place-value concepts to show an understanding of multi-digit whole numbers. (M04.A-T.1.1.1, M04.A-T.1.1.2, M04.A-T.1.1.3, M04.A-T.1.1.4)	Unit 5: 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 3.6 Unit 6: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 7: 1.4, 1.5, 1.6, 2.2, 2.3, 3.4, 3.5, 3.6 Unit 8: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6
CC.2.1.4.B.2 Use place-value understanding and properties of operations to perform multi-digit arithmetic. (M04.A-T.2.1.1, M04.A-T.2.1.2, M04.A-T.2.1.3, M04.A-T.2.1.4)	Unit 1: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 2.1, 2.4 Unit 2: 1.1, 1.2, 1.3, 1.5, 2.1, 2.2, 2.3 Unit 3: 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 4: 1.1, 1.3, 1.4, 1.5, 2.2, 2.4, 2.5, 3.1, 3.2, 3.3, 3.4, 4.1, 4.4, 4.5, 4.6 Unit 5: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.3, 2.4, 2.6, 2.7, 3.1, 3.4, 3.5, 3.6 Unit 6: 1.1, 1.2, 1.3, 1.4, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 7: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 8: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9
C) Numbers and Operations—Fractions	
CC.2.1.4.C.1 Extend the understanding of fractions to show equivalence and ordering. (M04.A-F.1.1.1, M04.A-F.1.1.2)	Unit 6: 1.1, 1.2, 1.3, 1.5, 1.6, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.8, 3.6 Unit 7: 1.5, 1.6
CC.2.1.4.C.2 Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. (M04.A-F.2.1.1, M04.A-F.2.1.2, M04.A-F.2.1.3, M04.A-F.2.1.4, M04.A-F.2.1.5, M04.A-F.2.1.6, M04.A-F.2.1.7)	Unit 6: 1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.3, 4.4 Unit 7: 2.2
CC.2.1.4.C.3 Connect decimal notation to fractions, and compare decimal fractions (base 10 denominator, e.g., 19/100). (M04.A-F.3.1.1, M04.A-F.3.1.2, M04.A-F.3.1.3)	Unit 6: 1.4, 1.5, 1.6, 2.7, 2.8, 3.5, 3.6, 4.2, 4.3, 4.4

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2.2.4 Algebraic Concepts	
A) Operations and Algebraic Thinking	
CC.2.2.4.A.1 Represent and solve problems involving the four operations. (M04.B-O.1.1.1, M04.B-O.1.1.2, M04.B-O.1.1.3, M04.B-O.1.1.4)	Unit 1: 1.4, 1.5, 1.6, 1.8, 2.2, 2.3 Unit 2: 2.3, 2.4 Unit 3: 1.1, 1.4, 2.1, 2.5, 3.6, 3.7 Unit 4: 1.4, 1.5, 2.2, 3.2 Unit 5: 2.3, 2.6, 2.7, 3.3, 3.4, 3.5, 3.6 Unit 6: 1.4, 2.3, 2.7 Unit 7: 1.2, 1.3, 2.1, 2.4, 2.5, 3.4, 3.5, 3.6 Unit 8: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10
CC.2.2.4.A.2 Develop and/or apply number theory concepts to find factors and multiples. (M04.B-O.2.1.1)	Unit 1: 1.1, 1.2, 1.3, 1.6, 1.7, 1.8, 2.1, 2.2, 2.3, 2.4 Unit 2: 1.1, 1.3 Unit 3: 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.6
CC.2.2.4.A.4 Generate and analyze patterns using one rule. (M04.B-O.3.1.1, M04.B-O.3.1.2, M04.B-O.3.1.3)	Unit 2: 1.4 Unit 8: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10
2.3.4 Geometry	
A) Geometry	
CC.2.3.4.A.1 Draw lines and angles and identify these in two-dimensional figures. (M04.C-G.1.1.1)	Unit 4: 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 4.4
C.2.3.4.A.2 Classify two-dimensional figures by properties of their lines and angles. (M04.C-G.1.1.2)	Unit 4: 2.1, 2.2, 2.3, 2.4, 2.5, 4.1
CC.2.3.4.A.3 Recognize symmetric shapes and draw lines of symmetry. (M04.C-G.1.1.3)	Unit 4: 4.1, 4.2, 4.3, 4.4
2.4.4 Measurement, Data, and Probability	
A) Measurement and Data	
CC.2.4.4.A.1 Solve problems involving measurement and conversions from a larger unit to a smaller unit. (M04.D-M.1.1.1, M04.D-M.1.1.2, M04.D-M.1.1.3, M04.D-M.1.1.4)	Unit 2: 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 Unit 4: 1.1, 1.2, 1.3, 1.4, 1.5 Unit 5: 1.1, 1.2, 1.3, 2.1, 2.6, 2.7, 3.4, 3.5, 3.6 Unit 6: 2.1, 3.5, 3.6, 4.2, 4.3, 4.4 Unit 7: 1.1, 1.2, 1.3, 1.7, 2.1, 2.4, 3.6 Unit 8: 1.6, 1.7, 1.8, 1.9, 1.10

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CC.2.4.4.A.2 Translate information from one type of data display to another. (M04.D-M.2.1.3)	Unit 2: 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6
CC.2.4.4.A.4 Represent and interpret data involving fractions using information provided in a line plot. (M04.D-M.2.1.1, M04.D-M.2.1.2)	Unit 2: 1.1, 2.1, 2.3, 2.5, 2.6 Unit 3: 1.1 Unit 6: 3.5
CC.2.4.4.A.6 Measure angles and use properties of adjacent angles to solve problems. (M04.D-M.3.1.1, M04.D-M.3.1.2)	Unit 4: 3.1, 3.2, 3.3, 3.4, 4.5, 4.6
Math Practices	
1. Make sense of problems and persevere in solving them.	Unit 1: 1.1, 1.5, 1.6, 1.8, 2.1 Unit 7: 1.1, 1.3, 1.6, 1.7, 2.1, 2.2, 3.3, 3.4
2. Reason abstractly and quantitatively.	Unit 3: 1.1, 1.4, 2.1, 2.2, 2.3, 3.3 Unit 7: 1.2, 1.4, 1.5, 2.1, 2.4, 2.5, 3.1, 3.5
3. Construct viable arguments and critique the reasoning of others.	Unit 2: 1.2, 1.4, 1.5, 2.4, 2.5 Unit 6: 1.1, 1.2, 1.5, 1.6, 2.2, 2.4, 2.5, 2.6, 3.3, 3.6, 4.1, 4.3
4. Model with mathematics.	Unit 2: 1.1, 1.5, 2.1, 2.4 Unit 8: 1.2, 1.3, 1.5, 1.6, 1.7, 1.9
5. Use appropriate tools strategically.	Unit 4: 1.1, 1.3, 1.4, 1.5, 2.2, 3.1, 3.2, 3.3, 3.4, 4.1, 4.4 Unit 5: 1.2, 1.3, 1.4, 1.6, 2.1, 2.2, 2.4, 2.5, 3.1, 3.6
6. Attend to precision.	Unit 4: 1.2, 1.3, 1.4, 1.5, 2.3, 3.1, 3.3, 4.1, 4.3, 4.4, 4.5 Unit 6: 1.1, 1.4, 1.6, 2.1, 2.3, 2.5, 2.8, 3.1, 4.1, 4.2, 4.3
7. Look for and make use of structure.	Unit 3: 1.1, 1.3, 2.1, 2.5, 3.1, 3.2, 3.4, 3.5, 3.6 Unit 5: 1.1, 1.2, 1.4, 1.5, 1.6, 2.2, 2.3, 2.4, 3.1, 3.2, 3.4
8. Look for and express regularity in repeated reasoning.	Unit 1: 1.2, 1.3, 1.6, 2.1, 2.2 Unit 8: 1.1, 1.2, 1.5, 1.6, 1.7, 1.8

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Grade 5 Units

Unit 1 - Puzzles, Clusters, and Towers

Unit 2 - Prisms and Solids

Unit 3 - Rectangles, Clocks, and Tracks

Unit 4 - How Many People and Teams?

Unit 5 - Temperature, Height, and Growth

Unit 6 - Between 0 and 1

Unit 7 - Races, Arrays, and Grids

Unit 8 - Properties of Polygons

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2.1.5 Numbers and Operations	
B) Numbers and Operations in Base Ten	
CC.2.1.5.B.1 Apply place-value concepts to show an understanding of operations and rounding as they pertain to whole numbers and decimals. (M05.A-T.1.1.1, M05.A-T.1.1.2, M05.A-T.1.1.3, M05.A-T.1.1.4, M05.A-T.1.1.5)	Unit 1: 2.3, 2.4, 3.2, 3.3, 3.4, 3.6, 3.7 Unit 4: 2.1, 2.2, 2.6, 2.7, 3.1, 3.4, 3.5 Unit 5: 1.5, 1.6 Unit 6: 1.1, 1.3, 1.4, 1.6, 1.7, 1.8, 2.1, 2.2, 2.3, 2.6, 2.8, 2.9 Unit 7: 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.4, 3.6, 3.8, 3.10, 3.11
CC.2.1.5.B.2 Extend an understanding of operations with whole numbers to perform operations including decimals. (M05.A-T.2.1.1, M05.A-T.2.1.2, M05.A-T.2.1.3)	Unit 1: 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.3, 2.5, 2.6, 3.2, 3.4, 3.5, 3.7 Unit 2: 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.1, 2.2, 2.3, 2.4 Unit 3: 1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5 Unit 4: 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.7, 3.1, 3.3, 3.4, 3.5 Unit 5: 1.1, 1.3, 1.4, 2.1, 2.2, 2.3, 2.5, 2.6 Unit 6: 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7 Unit 7: 1.1, 1.2, 1.3, 1.4, 1.6, 1.9, 2.2, 2.4, 3.2, 3.4, 3.7, 3.9, 3.11 Unit 8: 2.2, 2.3, 2.4, 2.5
C) Numbers and Operations—Fractions	
CC.2.1.5.C.1 Use the understanding of equivalency to add and subtract fractions. (M05.A-F.1.1.1)	Unit 3: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 4: 1.1, 1.2, 1.3, 1.4, 1.5 Unit 5: 1.1, 1.2, 1.3, 1.4 Unit 6: 1.1, 1.2, 1.3 Unit 8: 2.3, 2.4, 2.5
CC.2.1.5.C.2 Apply and extend previous understandings of multiplication and division to multiply and divide fractions. (M05.A-F.2.1.1, M05.A-F.2.1.2, M05.A-F.2.1.3, M05.A-F.2.1.4)	Unit 7: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11, 2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 3.4, 3.5, 3.6, 3.7 Unit 8: 1.4, 2.3, 2.4, 2.5
2.2.5 Algebraic Concepts	
A) Operations and Algebraic Thinking	
CC.2.2.5.A.1 Interpret and evaluate numerical expressions using order of operations. (M05.B-O.1.1.1, M05.B-O.1.1.2)	Unit 1: 1.1, 1.2, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 3.4, 3.5, 3.6, 3.7 Unit 3: 2.3, 2.4, 2.5, 3.1, 3.2, 3.3, 3.4 Unit 4: 2.1 Unit 5: 1.5, 1.6, 1.7, 2.4, 2.5, 2.6, 2.7 Unit 8: 2.1, 2.2, 2.3, 2.4, 2.5

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CC.2.2.5.A.4 Analyze patterns and relationships using two rules. (M05.B-O.2.1.1, M05.B-O.2.1.2)	Unit 5: 1.6, 1.7, 2.3, 2.4, 2.6, 2.7 Unit 8: 2.2, 2.3, 2.4, 2.5
2.3.5 Geometry	
A) Geometry	
CC.2.3.5.A.1 Graph points in the first quadrant on the coordinate plane and interpret these points when solving real world and mathematical problems. (M05.C-G.1.1.1, M05.C-G.1.1.2)	Unit 5: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.3, 2.4, 2.5, 2.6, 2.7
CC.2.3.5.A.2 Classify two-dimensional figures into categories based on an understanding of their properties. (M05.C-G.2.1.1)	Unit 8: 1.1, 1.2, 1.3, 1.4, 1.5, 2.2
2.4.5 Measurement, Data, and Probability	
A) Measurement and Data	
CC.2.4.5.A.1 Solve problems using conversions within a given measurement system. (M05.D-M.1.1.1)	Unit 7: 3.8, 3.9, 3.10, 3.11 Unit 8: 1.1, 1.3, 2.1, 2.3
CC.2.4.5.A.2 Represent and interpret data using appropriate scale. (M05.D-M.2.1.2)	Unit 3: 3.4, 3.5, 3.6
CC.2.4.5.A.4 Solve problems involving computation of fractions using information provided in a line plot. (M05.D-M.2.1.1)	Unit 3: 3.4, 3.5, 3.6
CC.2.4.5.A.5 Apply concepts of volume to solve problems and relate volume to multiplication and to addition. (M05.D-M.3.1.1, M05.D-M.3.1.2)	Unit 2: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 2.1, 2.2, 2.3, 2.4
Math Practices	
1. Make sense of problems and persevere in solving them.	Unit 1: 1.1, 1.3, 2.2, 2.4, 2.5, 3.2, 3.5 Unit 7: 1.1, 1.4, 1.7, 1.11, 2.1, 2.3, 3.2, 3.4, 3.5, 3.6, 3.8, 3.10
2. Reason abstractly and quantitatively.	Unit 4: 1.2, 2.1, 2.4, 2.5, 3.1, 3.3, 3.4 Unit 8: 2.1, 2.2, 2.4, 2.5

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3. Construct viable arguments and critique the reasoning of others.	Unit 3: 1.1, 1.2, 1.5, 2.1, 2.2, 2.3, 2.6, 3.2, 3.3, 3.5 Unit 8: 1.1, 1.3, 1.5, 2.1, 2.3, 2.4, 2.5
4. Model with mathematics.	Unit 2: 1.1, 1.4, 1.6, 1.7, 1.8, 2.2 Unit 5: 1.1, 1.2, 1.3, 1.4, 1.7, 2.1, 2.3, 2.5
5. Use appropriate tools strategically.	Unit 2: 1.2, 1.5, 1.7, 2.1, 2.2, 2.3 Unit 5: 1.1, 1.2, 1.3, 1.6, 2.1, 2.5
6. Attend to precision.	Unit 4: 1.1, 1.3, 2.1, 2.2, 2.4, 2.5, 2.7, 3.2 Unit 6: 1.1, 1.3, 1.4, 1.5, 1.6, 2.2, 2.4, 2.6, 2.7
7. Look for and make use of structure.	Unit 1: 1.1, 1.2, 2.2, 2.4, 3.1, 3.4, 3.5, 3.6 Unit 6: 1.1, 1.3, 1.7, 1.8, 2.1, 2.4, 2.5, 2.8
8. Look for and express regularity in repeated reasoning.	Unit 3: 1.1, 1.3, 1.4, 1.6, 2.1, 2.5, 2.7, 3.2, 3.3, 3.6 Unit 7: 1.3, 1.6, 1.8, 1.9, 1.10, 2.2, 2.3, 2.4, 3.3, 3.4, 3.8