# Hamilton-Wenham Regional School District

# MRMS Common Core Standards Grade 6

## Grade 6 Units

Unit 1: Algebra: Number Patterns and Functions

Unit 2: Statistics and Graphs

Unit 3: Operations with Decimals

Unit 4: Fractions and Decimals

Unit 5: Operations with Fractions

Unit 6: Ratio, Proportion, and Functions

Unit 7: Percent

Unit 8: Systems of Measurement

Unit 9: Geometry: Angles and Polygons

Unit 10: Measurement: Perimeter, Area, and Volume

Unit 11: Integers

Unit 12: Algebra: Properties and Equations

## Grade 6 Overview

In Grade 6 the focus is on four critical areas: (1) connecting ratio and rate to whole number multiplication and division, and using the concepts of ratio and rate to solve problems; (2) understanding and explaining why the procedures for dividing fractions makes sense and extending the notion of numbers to the system of rational numbers to include negative integers; (3) writing, interpreting, and using expressions and equations; and (4) developing their understanding of numbers to think statistically.

# Common Core (CC) Standards Curriculum Map Grade 6

## E. Todd Quarter 1

## Conceptual Category

Expressions and Equations

### Unit 1 Algebra: Number Patterns and Functions 20 days

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| CC Standard and Content | Mathematical Practices and Essential Questions | Prior Learning | Instructional Activities(IA)Formative Assessments(FA)Summative Assessments(SA) |
| **1-1****A Plan for Problem Solving** | SMP 1, 2, 3, 4, 6How would you plan to solve a word problem? | Make sense of problems and persevere in solving them | (FA) 1.1 Anticipation Guide(IA) 1.1 Graphic Organizer, Study Guide and Intervention, Skills, and Applications(FA) 1.1 Homework Practice |
| **1-CSB 6****Multiplying and Dividing Whole Numbers**6.NS.2 | How can multiplication help us repeatedly add large numbers?How is multiplication and division related? | Perform operations with multi-digit whole numbers | (IA) Review and Practice Sheets for multiplying and dividing using the standard algorithm |
| **1-2****Prime Factors**6.EE.2b | How can we determine if a number is prime or composite? | Find all factor pairs for a whole number in the range of 1-100 | (IA) 1.2 Sieve of Eratosthenes, Divisibility Rules, Study Guide and Intervention, Skills, and Applications(FA) Factor Trees |
| **1-3****Powers and Exponents**6.EE.1, 6.EE.2b | How can we use exponents to represent the value of larger numbers? | Use whole number exponents to denote powers of 10 | (IA) 1.3 Study Guide and Intervention, Graphing Calculator to evaluate expressions involving exponents(FA) Homework; Math Book pg. 35; #10-40 evens |
|  **1-4** **Order of Operations**6.EE.1, 6.EE.2c | Why does the order of operations lead you to an accurate solution? | Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols | (IA) 1.4 Study Guide and Intervention, Skills, and ApplicationsOrder of Operations Game(FA) Homework Order of Operations Puzzle(FA) Quiz; Lessons 1-4 |
| **1-5****Algebra: Variables and Expressions**6.EE.2, 6.EE2b, 6.EE.2c, 6.EE.6 | How does changing one variable in a data set affect the outcome of the data? | Write and interpret numerical expressions | (IA) 1.5 Study Guide and Intervention, Skills, and Applications(FA)Math Book; pp. ; #2-44 evens |
| **1-Write Expressions** CCSS56.EE.2, 6.EE.2a | How can mathematical symbols model verbal expressions? | Write simple expressions | (IA) Skills and Applications of real world situations |
| **Chapter 1-6 Algebra: Functions**6.EE.2, 6.EE.2a, 6.EE.2c, 6.EE.6, 6.EE.9 | SMP 4What strategies can we use to find patterns? | Identify simple number patterns | (IA) 1.6 Lesson Reading Guide, Study Guide and Intervention, Practice, and Word Problems(FA) Draw and color a function machine that represents a situation where the output depends on the input. |
| **1-7** **Problem-Solving Investigation: Guess and Check**Mathematics application of CC Standards for English Language | SMP 1,2, 3, 4, 6What makes a strategy both effective and efficient? | Construct viable arguments and critique the reasoning of others | (IA) 1.7 Study Guide and Intervention, Practice, and Application(FA) Journal Writing |
| **1-8** **Algebra: Equations**6.EE.5 | How can solving equations be useful in real life? | Write and interpret simple numerical expressions | (IA) 1.8 Study Guide and Intervention, Practice, and Application(FA) Homework: pg. 59; 6-32; evens |
| **1-9** **Algebra: Area Formulas**6.EE.2, 6.EE.2c, 6.EE.7Mathematics application of CC Standards for English Language | SMP 1,2, 3, 4, 5, 6How can you determine the area of different shapes? | Apply area formulas | (IA) 1.9 Study Guide and Intervention, Practice, and Application(FA) Homework; 1.9 Practice(FA) Graded Classwork; Lessons 4-9(FA) Garden Project(FA) Journal Writing(SA) Chapter Test and Glossary |

# Common Core (CC) Standards Curriculum Map Grade 6

## E. Todd Quarter 1

## Conceptual Category

The Number System

### Unit 3 Operations with Decimals 25 days

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| CC Standard and Content | Mathematical Practices and Essential Questions | Prior Learning | Instructional Activities(IA)Formative Assessments(FA)Summative Assessments(SA) |
| **3-1** **Representing Decimals**Preparation for 6.NS.3  | SMP 1, 2, 3, 4, 6, 7, 8 How do we use decimals in our everyday life? | Read, write and compare decimals to the thousandths place | (FA) 3.1 Anticipation Guide(IA) 3.1 Study Guide and Intervention, Skills Practice, and Application(IA) Place Value Chart |
| **3-2** **Comparing and Ordering Decimals**6.NS.7, 6.NS.7a, 6.NS.7b | How do we determine the value of a decimal number? | Read, write and compare decimals to the thousandths place | (IA) 3.2 Study Guide and Intervention, Skills Practice, and Application(FA) Retro Comparing Decimals War Card Game(FA) 3.2 Word Problems |
| **3-3** **Rounding Decimals**Preparation 6.NS.3 | How would you determine when to round a decimal up? | Use place value understanding to round decimals to any place | (IA) 3.3 Study Guide and Intervention, Skills Practice, and Application(FA) Rounding with Dice Game |
| **3-4** **Estimating Sums and Differences**Preparation for 6.NS.3Mathematics application of CC Standards for English Language Learners | Why is it useful to be able to estimate sums and differences? | Fluently add and subtract numbers | (IA) 3.4 Study Guide and Intervention, Skills Practice, and Application(FA) Homework 3.4 Practice and Application(SA) Quiz; Lessons 1-4(FA) Journal Writing |
| **3-5** **Adding and Subtracting Decimals**6.NS.3 | When do we add and subtract decimals in our everyday life? | Add and subtract decimals to the hundredth place | (IA) 3.5 Study Guide and Intervention, Skills Practice, and Application(FA) 3.5 Homework Practice |
| **Chapter 3-6****Multiplying Decimals by Whole Numbers**6.NS.3 | How can we use models to show multiplying decimals? | Multiply decimals to the hundredth place | (IA) 3.6 Study Guide and Intervention, Skills Practice, and Applications(FA) 3.6 Homework Practice |
| **Chapter 3-7 Multiplying Decimals**6.NS.3 | How do the rules of multiplying whole numbers relate to multiplying decimals? | Multiply decimals to the hundredth place | (IA) 3.7 Study Guide and Intervention, Skills Practice, and Application(FA) 3.7 Homework Word Problems |
| **Chapter 3-8 Dividing Decimals by Whole Numbers**6.NS.3 | How do you solve problems involving dividing decimals? | Divide decimals to the hundredth place | (IA) 3.8 Study Guide and Intervention, Skills Practice, and Application(FA) 3.8 Homework Word Problems |
| **Chapter 3-9 Dividing by Decimals**6.NS.3Mathematics application of CC Standards for English Language | How can you model different ways to divide decimals? | Divide decimals to the hundredth place | (IA) 3.9 Study Guide and Intervention, Skills Practice, and Application(FA) Journal Writing |
| **Chapter 3-10 Problem-Solving Investigation: Reasonable Answers** | SMP 1, 2, 3, 4,6, 7, 8 | Make sense of problems and persevere in solving them | (IA) 3.10 Study Guide and Intervention, Skills Practice and Application(SA) Talking Turkey Project—Comparing Costs for Thanksgiving Dinner(FA) Study Guide(SA) Test, Glossary, and Enrichment |

# Common Core (CC) Standards Curriculum Map Grade 6

## E. Todd Quarter 2

## Conceptual Category

The Number System

### Unit 4 Fractions and Decimals 15 days

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| CC Standard and Content | Mathematical Practices and Essential Questions | Prior Learning | Instructional Activities(IA)Formative Assessments(FA)Summative Assessments(SA) |
| **4-1** **Greatest Common Factor**6.NS.1, 6.NS.4  | How can the divisibility rules help to determine the greatest factor two numbers have in common? | Know multiplication and division facts | (FA) 4.1 Anticipation Guide(IA) Getting Ready for the Lesson—Make a Venn Diagram(IA) 4.1 Study Guide and Intervention, Skills Practice, and Application(FA) Homework; Math Book; pg. 200; 10-32; evens |
|  **4-2** **Simplifying Fractions**Preparation for 6.NS.1 | SMP 4How do you use the divisibility rules to simplify fractions? | Two fractions are equivalent if they are the same size, or the same point on the number line | (IA) Model equivalent fractions with counters(IA) Draw Equivalent Fractions(IA) 4.2 Study Guide and Intervention, Skills Practice and Application(FA) Homework; Math Book; pg. 207; 10-34; evens |
| **4-3****Mixed Numbers and Improper Fractions**Preparation for 6.NS.1 | How would you write instructions to convert mixed numbers to improper fractions and vice a versa? | Represent mixed numbers and improper fractions by a model | (IA) 4.3 Mini Lab; Math Book; pg. 209(IA) 4.3 Study Guide and Intervention, Skills Practice, and Application(FA) Homework; Math Book; pg. 211; 2-28; evens(SA) Quiz; Lessons 1-3 |
| **4-4****Problem-Solving Investigation: Make an Organized List** | SMP 1, 2, 3, 4, 6, 7, 8 | Make sense of problems and persevere in solving them | (FA) Review the 4-step Plan(IA) 4.4 Study Guide and Intervention, Skills Practice, and Application(FA) 4.4 Word Problems |
| **4-5****Least Common Multiple**6.NS.1, 6.NS.4Mathematics application of CC Standards for English Language | How applicable are multiples in every day life? | Fluently multiply numbers using the standard algorithm | (IA) 4.5 Mini Lab; Math Book pg. 16(IA) 4.5 Study Guide and Intervention, Skills Practice, and Application(FA) Homework; 4.5 Word Problems(FA) Journal Writing |
| **4-6****Comparing and Ordering Fractions**6.NS.7, 6.NS.7a, 6.NS.7b | How are fractions related? | Two fractions are equivalent if they are the same size or on the same point on the number line | (IA) 4.6 Mini Lab; Math Book pg. 220(IA) 4.6 Study Guide and Intervention, Skills Practice, and Application(FA) Homework; 4.6 Practice |
| **4-7****Writing Decimals as Fractions**Preparation for 6.RP.3c | How are decimals and fractions related? | Know place value  | (IA) 4.7 Study Guide and Intervention, Skills Practice, and Application(FA) Homework; Math Book; pp.227-228; 10-40; evens |
| **4-8****Writing Fractions as Decimals**Preparation for 6.RP.3c | How are fractions and decimals related? | Using decimal notation for fractions with denominators of 10 or 100 | (IA) 4.8 Study Guide and Intervention, Skills Practice, and Application(FA) Homework; Math Book; pp.231-232; 12-404; evens(FA) Quiz; Lessons 7-8(FA) Matchmaking Card Game |
| **4-9****Algebra: Ordered Pairs and Functions**6.NS.8 | Where does the coordinate system exist in daily life? | Graphing ordered pairs on the coordinate plane | (IA) 4.9 Get Ready for the Lesson; Math Book; pg. 233(IA) 4.9 Study Guide and Intervention, Skills Practice, and Application(FA) Homework; 4.9 Word Problems and 4.9 Enrichment(FA) Study Guide and Jeopardy Game(SA) Test, Glossary, and Enrichment |

# Common Core (CC) Standards Curriculum Map Grade 6

## E. Todd Quarter 2

## Conceptual Category

The Number System

### Unit 5 Operations with Fractions 20 Days

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| CC Standard and Content | Mathematical Practices and Essential Questions | Prior Learning | Instructional Activities(IA)Formative Assessments(FA)Summative Assessments(SA) |
| **5-1****Rounding Fractions and Mixed Numbers** Preparation for 6.NS.1 | SMP 4When is it useful to round fractions and mixed numbers? | Rounding skills with whole numbers | (FA) 4.1 Anticipation Guide(IA) 5.1 Explore; Math Book; pg. 248(IA) 5.1 Mini Lab; Math Book; pg. 249(IA) 5.1 Study Guide and Intervention, Skills Practice, and Application(FA) Homework; Math Book; pp. 252-253; 14-40; evens |
| **5-2****Problem-Solving Investigation: Act it Out**Preparation for6.NS.1 | SMP 1, 2, 3, 4, 6, 7, 8 | Make sense of problems and persevere in solving them | (IA) 5.2 Study Guide and Intervention, Skills Practice, and Application(FA) Homework 5.2 Word Problems |
| **5-6****Estimating Products of Fractions**Preparation for 6.NS.1 | When is it appropriate to use an estimation or approximation? | Estimating with whole numbers | (IA) 5.6 Exploring Unit Fractions; Math Book (teacher version); pg. 276a(IA) 5.6 Study Guide and Intervention, Skills Practice, and Application(FA) Homework; 5.6 Word Problems |
| **5-7****Multiplying Fractions**Preparation for 6.NS.1 | How can I use a model to show how to multiply two fractions? | Fluently multiply numbers using the standard algorithm | (IA) 5.7 Math Lab; Math Book; pp. 280-281(IA) 5.7 Study Guide and Intervention, Skills Practice, and Application(FA) Homework 5.7 Practice |
| **5-8****Multiplying Mixed Numbers**Preparation for 6.NS.1 | SMP 5How can I use a model to show how to multiply mixed number by a fraction? | Using models to represent mixed numbers | (IA) Options for Differentiated Instruction; Math Book (teacher version); pf. 287a(IA) 5.8 Study Guide and Intervention, Skills Practice, and Application(FA) 5.8 Practice and Word Problems |
| **5-9****Dividing Fractions**6.NS.1 | SMP 5How would you explain how to divide fractions? | Understanding how to write a reciprocal | (IA) 5.9 Math Lab; Math Book; pp. 291-292(IA) 5.9 Mini Lab; Math Book; pg. 293(IA) 5.9 Study Guide and Intervention, Skills Practice, and Application(FA) Homework; 5.9 Practice and Word Problems |
| **5-10****Dividing Mixed Numbers**6.NS.1 | How would you use a model to show how to divide mixed numbers? | Change mixed numbers to improper fractions | (IA) 5.10 Study Guide and Intervention, Skills Practice, and Application(FA) Homework; 5.10 Practice and Word Problems(FA) Study Guide and Jeopardy(SA) Test, Glossary, and Enrichment |

# Common Core (CC) Standards Curriculum Map Grade 6

## E. Todd Quarter 3

## Conceptual Category

Ratios and Proportional Relationships

### Unit 6 Ratio, Proportion, and Functions 20 days

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| CC Standard and Content | Mathematical Practices and Essential Questions | Prior Learning | Instructional Activities(IA)Formative Assessments(FA)Summative Assessments(SA) |
| **6-1** **Ratio and Rates**6.RP.1, 6.RP.2, 6.RP.3, 6.RP.3b  | SMP 5How is a ratio or rate used to compare two quantities or values? | Familiar with fractions | (FA) 6.1 Anticipation Guide(IA) 6.1 Math Lab; Math Book; pp. 320-321(IA) 6.1 Mini Lab; Math Book; pg. 314(IA) 6.1 Study Guide and Intervention, Skills Practice, and Application(FA) Homework 6.1 Practice and Word Problems |
| **6-2****Ratio Tables**6.RP.3, 6.RP.3a | What information can I get from comparing numbers in a ratio table? | Familiar with equivalent fractions | (IA) 6.2 Get Ready for the Lesson; Math Book; pg. 322(IA) 6.2 Study Guide and Intervention, Skills Practice, and Application(FA) 6.2 Homework Practice and Word Problems |
| **CCSS1**6.RP.3, 6.RP.3a |  |  |  |
| **6-3****Proportions**6.RP.2, 6RP.3, 6.RP.3b | SMP 5What are ratio proportion and scale? | Understanding multiplication as scaling or resizing fractions | (IA) 6.3 Study Guide and Intervention, Skills Practice, and Application(FA) 6.3 Homework Practice and Word Problems(FA) Draw a scale drawing of an object, write the ratio, and make an advertisement for that object |
| **6-4****Algebra: Solving Proportions****6.RP.2, 6.RP.3, 6.RP.3b**Mathematics application of CC Standards for English Language | How can proportions be used to solve problems? | Solving real world problems involving multiplication of fractions | (IA) 6.4 Study Guide and Intervention, Skills Practice, and Application(FA) 6.4 Homework Practice and Word Problems(FA) Journal Writing(SA) Quiz; Lessons 1-4 |
| **6-5****Problem-Solving Investigation: Look for a Pattern** | SMP 1, 2, 3, 4, 6, 7, 8 | Make sense of problems and persevere in solving them | (IA) Review the 4-Step Plan for Problem Solving(IA) 6.5 Study Guide and Intervention, Skills Practice, and Application(FA) 6.5 Homework Practice and Word Problems |
| **6-6****Sequences**6.EE.2, 6.EE.2c, 6.EE.6, 6.EE.9 | How can patterns be used to make a prediction? | Identify apparent relationships between corresponding terms | (IA) 6.6 Study Guide and Intervention, Skills Practice, and Application(FA) 6.6 Homework Practice and Word Problems |
| **6-7** **Proportions and Equations**6.RP.3, 6.RP.3a, 6.EE.7, 6.EE.9 | How do we use proportions and equations to solve real life situations? | Scaling and equivalent fractions | (IA) 6.7 Getting Ready for the Lesson; Math Book; pg. 349(IA) 6.7 Study Guide and Intervention, Skills Practice, and Application(FA) 6.7 Homework Practice and Word Problems(FA) Study Guide and Mind Jogger(SA) Test, Glossary, and Enrichment |

# Common Core (CC) Standards Curriculum Map Grade 6

## E. Todd Quarter 2

## Conceptual Category

Ratios and Proportional Relationships

### Unit 7 Percent 10 days

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| CC Standard and Content | Mathematical Practices and Essential Questions | Prior Learning | Instructional Activities(IA)Formative Assessments(FA)Summative Assessments(SA) |
| **7-1****Percents and Fractions**6.RP.3c | SMP 5How do people use percents and fractions in real life? | Use the understanding of place value in decimals | (IA) DVD What’s Math Got To Do With It?(FA) 7.1 Anticipation Guide(IA) 7.1 Math Lab; Modeling Percents(IA) 7.1 Study Guide and Intervention, Skills Practice, and Application(FA) 7.1 Homework Practice and Word Problems((FA) Menu Project |
| **7-2****Circle Graphs**Reinforcement for 6.RP.3c | When should a circle graph be used? | Different types of data are represented in a variety of ways | (IA) 7.2 Mini Lab; Math Book; pg. 370(IA) 7.2 Study Guide and Intervention, Skills Practice, and Application(FA) 7.2 Homework Practice and Word Problems(IA) Look in magazines/newspapers for circle graphs that pertain to students’ lives. Does the graph fairly represent their age group? |
| **7-3****Percents and Decimals**Reinforcement for 6.RP.3c | What is the relationship between fractions, decimals and percents? | Understanding the relationship between decimals and fractions | (IA) Draw A Picture; Math Book; pg. 376(IA) 7.3 Study Guide and Intervention, Skills Practice, and Application(FA) 7.3 Homework Practice and Word Problems(SA) Quiz; Lessons 1-3 |
| **7-7****Problem Solving Investigation: Solve a Simpler Problem** | SMP 1, 2, 3, 4,6, 7, 8 | Make sense of problems and persevere in solving them | (IA) Review the 4-Step Plan for Problem Solving(IA) 7.7 Study Guide and Intervention, Skills Practice, and Application(FA) 7.7 Homework Practice and Word Problems |
| **7-8****Estimating with Percents**6.RP.3c | How do I make a reasonable estimate? | Use mental computation and estimation strategies of whole numbers | (IA) 7.8 Mini Lab; Math Book; pg. 401(IA) 7.8 Study Guide and Intervention, Skills Practice, and Application(FA) 7.8 Homework Practice and Word Problems |
| **CCSS 2** **Solve Percent Problems****6.RP.3, 6.RP.3c**Mathematics application of CC Standards for English Language | How do you find the missing value in a percent problem? | Understanding the relationship of a fraction being part of a whole | (FA) Journal Writing(FA) Study Guide, Mind Jogger, and Jeopardy(SA) Test, Glossary, and Enrichment |

# Common Core (CC) Standards Curriculum Map Grade 6

## E. Todd Quarter 4

## Conceptual Category

### Ratios and Proportional Relationships

### Unit 8 Systems of Measurements 10 days

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| CC Standard and Content | Mathematical Practices and Essential Questions | Prior Learning | Instructional Activities(IA)Formative Assessments(FA)Summative Assessments(SA) |
| **8-1****Length in the Customary System**6.RP.3d | How does what I measure influence how we measure? | Identify the units of measurement in the customary system | (FA) 8.1 Anticipation Guide(IA) Concept Map; Math Book (teacher version); pg. 416E(IA) 8.1 Mini lab; Math Book; pg. 418(IA) 8.1 Study Guide and Intervention, Skills Practice, and Application(FA) 8.1 Homework Practice and Word Problems |
| **8-2****Capacity and Weight in the Customary System**6.RP.3d | How did converting units of length help you to understand converting units of weight and capacity? | Measure by counting cubes | (IA) 8.2 Mini Lab; Math Book; pg. 424(IA) 8.2 Study Guide and Intervention, Skills Practice, and Application(FA) 8.2 Homework Practice and Word Problems |
| **Explore 8-3****Measurement Lab: The Metric System**6.RP.3d | If you know how long something is in inches, can you estimate the length in centimeters? What would you do? | Familiarity with the metric system | (IA) 8.3 The Metric Lab; Math Book; pg. 430(IA) 8.8 Study Guide and Intervention, Skills Practice, and Application(FA) 8.3 Homework Practice and Word Problems |
| **8-5****Problem-Solving Investigation: Use Benchmarks** | SMP 1, 2, 3, 4,6, 7, 8How can a benchmark be useful in solving a problem? | Make sense of problems and persevere in solving them | (IA) 8.5 Study Guide and Intervention, Skills Practice, and Application(FA) 8.5 Homework Practice and Word Problems |
| **8-6****Changing Metric Units**6.RP.3d | What are the three main units in the metric system and what are they used to measure? | CCSS Grade 4Multiplying and dividing decimals | (IA) 8.6 Get Ready for the Lesson; Math Book; pg. 445(IA) 8.6 Study Guide and Intervention, Skills Practice, and Application(FA) 8.6 Homework Practice and Word Problems |
| **Extend 8-8****Measurement Lab: Using Appropriate Units and Tools**6.SP.5b | SMP 1, 2, 3, 4, 5, 6How do I choose the appropriate units and tools when measuring? | Identify different units of measurement | (IA) 8.8 Measurement Lab; Math Book; pg. 459(FA) Journal Writing(FA) Study Guide and Jeopardy(SA) Test, Glossary, and Enrichment |

# Common Core (CC) Standards Curriculum Map Grade 6

## E. Todd Quarter 4

## Conceptual Category

### Geometry

### Unit 9 Geometry: Angles and Polygons 2 days

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| CC Standard and Content | Mathematical Practices and Essential Questions | Prior Learning | Instructional Activities(IA)Formative Assessments(FA)Summative Assessments(SA) |
| **9-4****Triangles**Preparation for6.G.1  | How can angles and side measures help us to classify triangles? | Classify angles | (FA) Anticipation Guide(IA) 9.4 Geometry Lab; Math Book; pg. 485(IA) 9.4 Real World Connections; Math Book (teacher’s version); pg. 486a(IA) 9.4 Mini Lab; Math Book; pg. 486 (IA) 9.4 Study Guide and Intervention, Skills Practice, and Application(FA) 9.4 Homework Practice and Word Problems(FA) Journal Writing |
| **9-5****Quadrilaterals**Preparation for 6.G.1 | How can you classify quadrilaterals? | Classify two-dimensional figures | (IA) 9.5 Geometry Lab; Math Book; pg. 493(IA) 9.5 Mini Lab; Math Book; pg. 494(IA) 9.5 Study Guide and Intervention, Skills Practice, and Application(FA) 9.5 Homework Practice and Word Problems |
| **9-6****Problem Solving Investigation: Draw a Diagram** | SMP 1, 2, 3, 4,6, 7, 8 | Make sense of problems and persevere in solving them | (IA) 9.6 Study Guide and Intervention, Skills Practice, and Application(FA) 9.6Homework Practice and Word Problems(FA) Study Guide and Jeopardy(SA) Test, Glossary, and Enrichment |

# Common Core (CC) Standards Curriculum Map Grade 6

## E. Todd Quarter 4

## Conceptual Category

### Expressions and Equations

### Unit 10 Measurement: Perimeter, Area, and Volume 13 days

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| CC Standard and Content | Mathematical Practices and Essential Questions | Prior Learning | Instructional Activities(IA)Formative Assessments(FA)Summative Assessments(SA) |
| **10-3****Area of Parallelograms**6.EE.2, 6.EE.2c, 6.G.1 | How can you relate finding the area of a rectangle to a parallelogram? | Use of formulas | (IA) Anticipation Guide(IA) 10.3 Mini Lab; Math Book; pg. 534(IA) 10.3 Study Guide and Intervention, Skills Practice, and Application(FA) 10.3 Homework Practice and Word Problems |
| **10-4****Area of Triangles**6.EE.2, 6.EE.2c, 6.G.1 | How can you relate finding the area of a triangle to the area of a parallelogram? | Use of formulas | (IA) 10.4 Measurement Lab; Math Book; pg. 539(IA) 10.4 Study Guide and Intervention, Skills Practice, and Application(FA) 10.4 Homework Practice and Word Problems |
| **CSB 13****Composite Figures**6.G.1 | How do you find the area of a composite figure? | Use of formulas |  |
| **10-5****Problem-Solving Investigation Make a Model** | SMP 1, 2, 3, 4, 6, 7, 8 | Make sense of problems and persevere in solving them | (IA) 10.5 Study Guide and Intervention, Skills Practice, and Application(FA) 10.5 Homework Practice and Word Problems |
| **10-6****Volume of Rectangular Prisms**6.EE.2, 6.EE2c, 6.G.2Mathematics application of CC Standards for English Language | How can you find the volume of a rectangular prism? | Find volume by using cubes | (IA) 10.6 Mini Lab; Math Book; pg. 548(IA) 10.6 Study Guide and Intervention, Skills Practice, and Application(IA) 10.6 Geometry Lab(FA) 10.6 Homework Practice and Word Problems(FA) Journal Writing |
| **10-7****Surface Area of Rectangular Prisms**6.G.4, 6.SP.5b | What shapes make up a rectangular prism and how can you use these shapes to find the surface area? | Use of formulas | (IA) 10.7 Mini Lab; Math Book; pg. 555(IA) 10.7 Study Guide and Intervention, Skills Practice, and Application(IA) Countdown Challenge Worksheet(FA) 10.7 Homework Practice and Word Problems(IA) Measurement Lab; Math Book; pg. 560(FA) Study Guide and Jeopardy(SA) Test, Glossary, and Enrichment |

# Common Core (CC) Standards Curriculum Map Grade 6

## E. Todd Quarter 4

## Conceptual Category

The Number System

### Unit 11 Integers 10 days

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| CC Standard and Content | Mathematical Practices and Essential Questions | Prior Learning | Instructional Activities(IA)Formative Assessments(FA)Summative Assessments(SA) |
| **11-1****Ordering Integers**6.NS.6, 6.NS.7, 6.NS.7a, 6.NS.7b, 6.NS.8 | Why is location on the number line important? | Use positive and negative numbers to describe quantities | (IA) 11.1 Anticipation Guide(IA) 11.2 Algebra Lab; math Book; pg. 576(IA) 11.2 Study Guide and Intervention, Skills Practice, and Application(FA) 11.2 Homework Practice and Word Problems |
| **LA 1****Negative Rational Numbers**6.NS.6, 6.NS6c, 6.NS.7, 6.NS.7a, 6.NS.7b, 6.NS.7c, 6.NS.7d | Is there evidence of integers in our everyday life? | Use of positive and negative numbers in temperature, elevation or money |  |
| **11-5****Problem-Solving Investigation: Work Backward** | SMP 1, 2, 3, 4, 6, 7, 8 | Make sense of problems and persevere in solving them | (IA) 11.5 Study Guide and Intervention, Skills Practice, and Application(FA) 11.5 Homework Practice and Word Problems |
| **11-7****The Coordinate Plane**6.NS.8 | Why is graphing on the coordinate plane helpful? | Graphing points in the first quadrant | (IA) Get Ready For The Lesson; Math Book; pg. 599(IA) 11.7 Study Guide and Intervention, Skills Practice, and Application(FA) 11.7 Homework Practice and Word Problems |
| **CCSS 4****Extend: Distance on the Coordinate Plane**6.NS.8 | Where does the coordinate system exist in daily life? | Graphing points in the first quadrant | <http://www.uen.org/core/math/downloads/6NS6b.pdf> |
| **CCSS 8****Polygons on the Coordinate Plane**6.G.3 | What can we determine from polygons drawn on the coordinate plane? |  | (IA) Draw polygons in the coordinate plane given for the vertices; use coordinate to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.(FA) Study Guide and Jeopardy(SA) Test, Glossary, and Enrichment |

# Common Core (CC) Standards Curriculum Map Grade 6

## E. Todd Quarter 4

## Conceptual Category

### Expressions and Equations

### Chapter 12 Algebra: Properties and Equations 20 days

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| CC Standard and Content | Mathematical Practices and Essential Questions | Prior Learning | Instructional Activities (IA)Formative Assessments(FA)Summative Assessments(SA) |
| **12-1****The Distributive Property**6.NS.4, 6.EE.3, 6.EE.4 | How can the distributive property help me with computation? | Adding, subtracting, multiplying and dividing whole numbers using the standard algorithm | (IA) 12.1 Anticipation Guide(IA) Algebra Lab; Math Book; pp. 630-631(IA) Get Ready for the Lesson; Math Book pg. 632(IA) 12.1 Study Guide and Intervention, Skills Practice, and Application(FA) 12.1 Homework Practice and Word Problems |
| **CCSS 3****Extend Factoring**6.NS.4, 6.EE.3 |  |  | (IA) <http://interactivemaths.net/index.php?q=category/1/28/29/106> |
| **12-2****Simplifying Algebraic** Expressions6.NS.4, 6.EE.2b, 6.EE.3, 6.EE.4 | How do I use algebraic expressions to analyze or solve problems? | Order of operations and writing and interpreting numerical expressions | (IA) Get Ready for the Lesson; Math Book; pg. 636(IA) 12.2 Study Guide and Intervention, Skills Practice, and Application(FA) 12.2 Homework Practice and Word Problems |
| **12-3****Solving Addition Equations**6.EE.7 | How is an equation like a balance scale? | Adding and subtracting numbers using the standard algorithm | (IA) 12.3 Algebra Lab; Math Book; pg. 642(IA) 12.3 Study Guide and Intervention, Skills Practice, and Application(FA) Football Game(FA) 12.3 Homework Practice and Word Problems |
| **12-4****Solving Subtraction Equations**6.EE.7 | How can using number relationships help me to solve a subtraction equation? | Adding and subtracting numbers using the standard algorithm | (IA) Get Ready for the Lesson; Math Book; pg. 651(IA) 12.4 Study Guide and Intervention, Skills Practice, and Application(FA) 12.4 Homework Practice and Word Problems(FA) Algebra Lab; Math Book; pg. 655 |
| **12-5****Solving Multiplication Equations**6.EE.7 | How would knowing your multiplication facts help you to solve multiplication equations? | Multiplying and dividing numbers using the standard algorithm | (IA) Get Ready for the Lesson; Math Book; pg. 657(IA) 12.4 Study Guide and Intervention, Skills Practice, and Application(FA) 12.4 Homework Practice and Word Problems(FA) Journal Writing |
| **CCSS 6****Inequalities**6.EE.5, 6.EE.8 |  |  | (IA) <http://www.uen.org/Lessonplan/preview?LPid=6393> |
| **CCSS 7****Write and Graph Inequalities**6.EE.5, 6.EE.8 | SMP 1,2, 4, 6, 7How do you write inequalities that correspond to a given situation? | Write and interpreting an equation | (IA) Provide students with a list of real-world situations using inequalities, have the students match the inequality to the situation and graph(IA) Provide students with inequalities and have the students write real-world situations and graph |
| **12-6****Problem-Solving Investigation: Choose the Best Method of Computation** | SMP 1, 2, 3, 4, 6, 7, 8 | Make sense of problems and persevere in solving them |  (IA) 12.6 Study Guide and Intervention, Skills Practice, and Application(FA) 12.6 Homework Practice and Word Problems(FA) Study Guide and Jeopardy(SA) Test, Glossary, and Enrichment |

# Common Core (CC) Standards Curriculum Map Grade 6

## E. Todd Quarter 4

## Conceptual Category

Statistical Thinking

### Unit 2 Statistics and Graphs 15 days

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| CC Standard and Content | Mathematical Practices and Essential Questions | Prior Learning | Instructional Activities(IA)Formative Assessments(FA)Summative Assessments(SA) |
| **CCSS 9****Explore: Statistics Questions**6.SP.1 | Why is data collected and analyzed? |  | (FA) Anticipation Guide |
| **2-1****Problem-Solving Investigation: Make a Table** | SMP 1, 2, 3, 4, 6, 7, 8 | Make sense of problems and persevere in solving them | IA) 2.1 Study Guide and Intervention, Practice, and Word Problems |
| **Extend 2-2****Spreadsheet Lab; Double-Line and-Bar Graphs**Preparation for 6.SP.5 | SMP 5 How do you determine the best way to display data on a graph? | Excel spreadsheet | Excel Spreadsheet in the Tech Lab |
| **2-3****Interpret Line Graphs**Preparation for 6.SP.5 | How can predictions be made based on the data? | Interpret graphs | (IA) 2.3 Study Guide and Intervention, Practice, and Word Problems(FA) 2.3 Homework Skills Practice—Interpret Line Graphs |
| **2-4****Stem-and Leaf Plots**Preparation for 6.SP.5 | Why is this data display appropriate for a given set of data? | Determine different methods to display data | (IA) 2.4 Study Guide and Intervention, Practice, and Word Problems(FA) 2.4 Homework; pp. 94-95; 6-24 evens |
| **2-5****Line Plots**6.SP.2, 6.SP.4, 6.SP.5, 6.SP.5a | Why is this data display appropriate for a given set of data? | Make a line plot | (IA) 2.5 Study Guide and Intervention, Practice, and Application(FA) 2.5 Homework; pp. 98-99; 1-18; all(FA) 2.5 Study Guide and Review(SA) Quiz; Lessons 1-5 |
| **LA6****Histograms**6.SP.4 | Why is this data display appropriate for a given set of data? | Interpret data |  |
| **2-6 Mean**6.SP.2, 6.SP.3 | How is the mean computed and how is it used in real life? | Multiplying and dividing numbers using the standard algorithm | (IA) 2.6 Study Guide and Intervention, Practice, and Application(IA) Roll a dice game for Data(FA) Homework; Math Book; pp. 105-106; 10-32; evens |
| **Extend 2-6****Spreadsheet Lab; Spreadsheets and Mean**6.SP.2 | SMP 5How do we use technology effectively? | Excel Spreadsheet | Excel Spreadsheet |
| **2-7****Median, Mode, and Range**6.SP.2, 6.SP.3Mathematics application of CC Standards for English Language | How can median, mode and range be computed and compared? | Represent and interpret data | (IA) 2.7 Get Ready for the Lesson; Have 7 students line up to height(IA) Study Guide and Intervention, Practice, and Application(FA) Complete Notes(FA) Journal Writing |
| **CCSS 10****Measures of Variation**6.SP.3, 6.SP.5c |  |  | (IA) Study Guide and Intervention, Practice, and Application |
| **CCSS 11 Box-and-Whisker Plots**6.SP.2, 6.SP.4 | Why is this data display appropriate for a given set of data? | Represent and interpret data | (IA) Study Guide and Intervention, Practice, and Application<http://www.shodor.org/interactivate/activities/BoxPlot/> |
| **CCSS 12 Mean Absolute Deviation**6.SP.5c | What kinds of questions can be answered using mean absolute deviation? | Represent and interpret data | (IA) Study Guide and Intervention, Practice, and Application |
| **CCSS 13** **Shape of Data Distributions**6.SP.5d | What does the shape of data distribution tell us about the data? | Represent and interpret data | (IA) Study Guide and Intervention, Practice, and Application |
| **2-8 Selecting an Appropriate Display**6.SP.4 | SMP 1, 2, 3, 4, 6, 7, 8 How would you determine which display would be most effective to display different kinds of data? | Represent and interpret data | (IA) 2.8 Study Guide and Intervention, Practice and Application(SA) Group Poster—given a set of data select an appropriate display for the situation |
| **Extend 2-8****Statistics Lab; Collecting Data to Solve a Problem**6.SP.5, 6.SP.5a, 6.SP.5b, 6.SP.5c | How does the data we collect help us to solve a problem? | Represent and interpret data | Tech Lab |
| **2-9****Integers and Graphing**6.NS.5, 6.NS.6. 6.NS6a, 6.NS.6c | Why is graphing an effective representation of integers? | Familiar with positive and negative integers | (IA) 2.9 Get Ready for the Lesson—tape a number line to the floor(IA) 2.9 Study Guide and Intervention, Practice and Application(IA) Study Guide(SA) Test, Glossary, and Enrichment |