# 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, 6  How 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 Applications  Order 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** CCSS5  6.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 4  What 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, 6  What 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.7  Mathematics application of CC Standards for English Language | SMP 1,2, 3, 4, 5, 6  How 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.3  Mathematics 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.3  Mathematics 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 4  How 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.4  Mathematics 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 4  When 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 5  How 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 5  How 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 5  How 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 5  What 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 5  How 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, 8  How 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 4  Multiplying 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, 6  How 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.2  Mathematics 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** Expressions  6.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, 7  How 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 5  How do we use technology effectively? | Excel Spreadsheet | Excel Spreadsheet |
| **2-7**  **Median, Mode, and Range**  6.SP.2, 6.SP.3  Mathematics 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 |