

# Kenilworth Public Schools

## Curriculum Guide

Content Area: Math

Grade: 4

BOE Approved: 8/13/12

Revision Date: Fall 2018

Submitted by: Gina Folgar

BOE Revision Approved: 10/10/18

# Mathematics- Grade 4 Scope and Sequence

Unit 1- Multiplication Review and Place Value, Addition, and Subtraction	Unit 2- Multiplication	Unit 3- Division	Unit 4- Fractions & Decimals	Unit 5- Geometry	Unit 6- Measurement	Unit 7- Bridging the Gap
Weeks 1-3	Weeks 4-9	Weeks 10-15	Weeks 16-24	Weeks 25-29	Weeks 30-35	Weeks 36-38
<p><i>Unit Description:</i> All students will generalize place value understanding for multi-digit whole numbers. Students will use place value understanding and properties of operations to perform multi-digit arithmetic.</p>	<p><i>Unit Description:</i> All students will use the four operations with whole numbers to solve problems. Students will develop understanding and fluency with multi-digit multiplication.</p>	<p><i>Unit Description:</i> All students will gain a familiarity with factors and multiples. Students will generate and analyze patterns.</p>	<p><i>Unit Description:</i> All students will develop an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers.</p>	<p><i>Unit Description:</i> All students will generate and analyze patterns. Students will draw and identify lines and angles, and classify shapes by properties of their lines and angles. Students will understand concepts of angles and measure angles.</p>	<p><i>Unit Description:</i> All students will solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.</p>	<p><i>Unit Description:</i> Build on Grade 4 content and prepare students for Grade 5 content.</p>
<p><i>Unit Targets:</i></p> <ul style="list-style-type: none"> <li>• Read and write whole numbers in standard form, word form, and expanded form.</li> <li>• Compare and</li> </ul>	<p><i>Unit Targets:</i></p> <ul style="list-style-type: none"> <li>• Relate and solve multiplication equations and comparison statements.</li> <li>• Multiply tens,</li> </ul>	<p><i>Unit Targets:</i></p> <ul style="list-style-type: none"> <li>• Relate multiplication to division as the inverse operation.</li> <li>• Use models to divide whole</li> </ul>	<p><i>Unit Targets:</i></p> <ul style="list-style-type: none"> <li>• Use models and multiplication to generate equivalent fractions.</li> <li>• Write and identify</li> </ul>	<p><i>Unit Targets:</i></p> <ul style="list-style-type: none"> <li>• Identify and draw points, lines, line segments, rays, angles, parallel, and perpendicular lines.</li> </ul>	<p><i>Unit Targets:</i></p> <ul style="list-style-type: none"> <li>• Use benchmarks to understand the relative sizes of measurement units.</li> <li>• Use models to</li> </ul>	<p><i>Unit Targets:</i></p> <ul style="list-style-type: none"> <li>• Find sums and differences of decimal amounts in dollars and cents.</li> <li>• Use the order of</li> </ul>

<p>order whole numbers based on the values of the digits in each number.</p> <ul style="list-style-type: none"> <li>• Round any whole number to any place.</li> <li>• Add and subtract whole numbers to the millions.</li> </ul>	<p>hundreds and thousands by whole numbers through 10.</p> <ul style="list-style-type: none"> <li>• Use the Distributive Property to multiply a 2-digit number by a 1-digit number.</li> <li>• Use expanded form and partial products to multiply.</li> <li>• Multiply 2-, 3-, and 4-digit numbers with regrouping.</li> </ul>	<p>numbers that do not divide evenly.</p> <ul style="list-style-type: none"> <li>• Interpret remainders to solve division problems.</li> <li>• Use place value to determine where to place the first digit of a quotient.</li> <li>• Divide tens, hundreds, and thousands by whole numbers through 10.</li> <li>• Use the Distributive Property to find quotients.</li> <li>• Use repeated subtraction and multiples to find quotients.</li> <li>• Use partial products to divide.</li> <li>• Find all the factors of a number by using models.</li> <li>• Understand the relationship between factors and multiples.</li> <li>• Determine</li> </ul>	<p>fractions in simplest form.</p> <ul style="list-style-type: none"> <li>• Use equivalent fractions to represent a pair of fractions as fractions with common denominators.</li> <li>• Add and subtract parts of a whole.</li> <li>• Solve word problems involving addition and subtraction with fractions.</li> <li>• Write fractions greater than 1 as mixed numbers and write mixed numbers as fractions greater than 1.</li> <li>• Add and subtract mixed numbers.</li> <li>• Write a fraction as a product of a whole number and a unit fraction.</li> <li>• Record tenths and hundredths as fractions and as decimals.</li> <li>• Translate among representations of</li> </ul>	<ul style="list-style-type: none"> <li>• Classify triangles by the size of their angles.</li> <li>• Sort and classify quadrilaterals.</li> <li>• Determine and draw lines of symmetry based on each 2-dimensional figure.</li> <li>• Relate angles and fractional parts of a circle.</li> <li>• Relate degrees to fractional parts of a circle out of a possible <math>360^\circ</math>.</li> <li>• Use a protractor to measure angles.</li> </ul>	<p>compare customary units of length, weight, and liquid volume.</p> <ul style="list-style-type: none"> <li>• Make and interpret line plots with fractional data.</li> <li>• Use models to compare metric units of length, mass, and liquid volume.</li> <li>• Use models to compare units of time.</li> <li>• Solve problems involving mixed measures.</li> <li>• Use a formula to find the perimeter and area of a rectangle.</li> </ul>	<p>operations to find the value of expressions.</p> <ul style="list-style-type: none"> <li>• Use patterns to divide multiples of ten.</li> <li>• Use base-ten blocks to divide with 2-digit divisors.</li> <li>• Read and write whole numbers through millions.</li> <li>• Read and write decimals using place value.</li> <li>• Round decimal amounts, including money amounts, to the nearest whole number or dollar.</li> <li>• Use multiplication to describe patterns.</li> </ul>
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		whether a number is prime or composite.	fractions, decimals, and money. <ul style="list-style-type: none"><li>• Compare decimals to hundredths by reasoning about their size.</li></ul>			
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# Mathematics- Grade 4 Unit One

<b>Unit title:</b> Multiplication Fact Review, then Place Value, Addition, and Subtraction (Review and Chapter 1)	
<b>Unit summary:</b> All students will review basic multiplication facts. All students will generalize place value understanding for multi-digit whole numbers. Students will use place value understanding and properties of operations to perform multi-digit arithmetic.	
<b>Primary interdisciplinary connections:</b> Language Arts, Technology, Science and Social Studies	
<b>21<sup>st</sup> Century Themes:</b> Global Awareness	
<b>Learning Targets</b>	
<b>NJSLS Standards:</b> NBT 4.1-4; OA 4.1-3	
<b>Technology Standards:</b> 8.1.5.A.1	
<b>Content Statements:</b>	
1	Place value relationships
2	Comparisons and ordering of numbers
3	Addition and subtraction of whole numbers
<b>Big Ideas:</b> By identifying basic multiplication facts, different steps of problems can easily be solved. By understanding the place value of digits, different numerical operations can be applied to solve problems.	
<b>Unit Essential Questions:</b> <ul style="list-style-type: none"> <li>• How can you describe a digit to understand its value?</li> </ul>	<b>Unit Enduring Understandings:</b> <ul style="list-style-type: none"> <li>• Comparing and ordering numbers helps describe a digit's value to solve mathematical problems.</li> </ul>
<b>Unit Learning Targets</b> <i>Students will...</i> <ul style="list-style-type: none"> <li>• Use a variety of review methods to identify basic multiplication facts.</li> <li>• Model the 10-to-1 relationship among place-value positions in the base-ten number system.</li> <li>• Read and write whole numbers in standard form, word form, and expanded form.</li> <li>• Compare and order whole numbers based on the values of the digits in each number.</li> <li>• Round a whole number to any place.</li> <li>• Rename whole numbers by regrouping.</li> </ul>	

- Add and subtract whole numbers and determine whether solutions to addition problems are reasonable.
- Use the strategy draw a diagram to solve comparison problems with addition and subtraction.

### Evidence of Learning

**Summative Assessment:** Timed Multiplication Quizzes, then Chapter 1 Test, Performance Task Assessment

**Formative Assessments:**

- Multiplication centers and activities
- “Show What You Know”  
Chapter 1 – 3, 4
- Mid Chapter Quiz  
Chapter 1 – 21, 22
- Exit slips
- Notebook check
- Teacher observation
- Class Participation
- Problem of the day

### Lesson Plans

<i>Activities</i>	<i>Timeframe</i>
<ul style="list-style-type: none"> <li>• (Optional Enrichment) Project: <i>Food in Space</i> (pg. 2)</li> <li>• <i>Grab and Go Centers:</i> <b>Chapter 1</b> <ol style="list-style-type: none"> <li>1. Purple Cards: 1, 4</li> <li>2. Literature: <u>World’s Tallest Building</u>, <u>Summing Up a Pet’s Needs</u></li> <li>3. Orange Cards: 1, 4</li> <li>4. Games: Who’s the Closest?, Tree Climb</li> </ol> </li> </ul> <p>Ongoing activities</p> <ul style="list-style-type: none"> <li>o Smarter Balance Workbook Spiral Review (use different standard reviews that do not correlate with current chapter)</li> <li>o Timed Multiplication Quizzes</li> <li>o 180 Days of Math Activities</li> <li>o Interactive Notebook</li> </ul>	<p>Weeks 1-3</p>

Students with Disabilities, English Language Learners,  
and Gifted & Talented Students:

Differentiating instruction is a flexible process that includes the planning and design of instruction, how that instruction is delivered, and how student progress is measured. Teachers recognize that students can learn in multiple ways. By providing appropriately challenging learning, teachers can maximize success for all students.

Examples of Strategies and Practices that Support  
Students with Disabilities:

- Use of visual and multisensory formats
- Use of assisted technology
- Use of prompts
- Modification of content and student products
- Testing accommodations
- Authentic assessments

Examples of Strategies and Practices that Support Gifted  
& Talented Students:

- Adjusting the pace of lessons
- Curriculum compacting
- Inquiry-based instruction
- Independent study
- Higher-order thinking skills
- Interest-based content
- Student-driven instruction
- Real-world problems and scenarios

Examples of Strategies and Practices that Support English  
Language Learners:

- Pre-teaching of vocabulary and concepts
- Visual learning, including graphic organizers
- Use of cognates to increase comprehension
- Teacher modeling
- Pairing students with beginning English language skills with students who have more advanced English language skills
- Scaffolding
  - word walls
  - sentence frames
  - think-pair-share
  - cooperative learning groups

<ul style="list-style-type: none"> <li>•teacher think-aloud</li> </ul>	
<i>Teacher Resources</i>	<i>Teacher Note</i>
<ul style="list-style-type: none"> <li>• Textbook</li> <li>• Textbook resource materials</li> <li>• Grab-and-Go Differentiated Centers Kit</li> <li>• Student Math Boards</li> <li>• Place value number cards and chart</li> <li>• Base-ten blocks</li> <li>• Think Central resources</li> <li>• My Personal Math Trainer</li> <li>• Teacher Supplemental Binder</li> </ul>	<p>Activities can always be used during small group instruction for the use of a math center or during whole group instruction as a mini-assessment to check for understanding.</p> <p>Timed Multiplication Quizzes, 180 Days of Math Activities, and Interactive Notebook pages can be found in the Fourth Grade Supplemental Activities binder.</p>



# Mathematics- Grade 4 Unit Two

**Unit title:** Multiplication (Chapters 2 and 3)

**Unit summary:** All students will use the four operations with whole numbers to solve problems. Students will develop understanding and fluency with multi-digit multiplication.

**Primary interdisciplinary connections:** Literature, Technology

**21<sup>st</sup> Century Themes:** Global Awareness

## Learning Targets

**NJSLS Standards:** NBT 4.1,3-5; OA 4.1-3

**Technology Standards:** 8.1.5.A.1

**Content Statements:**

- |   |  |
|---|--|
| 1 | Multiplication comparison problems                   |
| 2 | Multiply 2-, 3-, and 4-digit numbers with regrouping |
| 3 | Area models and partial products to multiply         |

**Big Idea:** Different strategies can help us compute numbers more efficiently.

**Unit Essential Questions:**

- What are the different ways to multiply numbers?

**Unit Enduring Understandings:**

- We can learn to multiply by using a number of strategies.

**Unit Learning Targets**

*Students will...*

- Relate multiplication equations and comparison statements.
- Solve problems involving multiplicative comparison and additive comparison.
- Multiply tens, hundreds, and thousands by whole numbers.
- Use the Distributive Property and expanded form to multiply.
- Use place value and partial products to multiply multi-digit numbers.
- Use regrouping to multiply.
- Represent and solve multi-step problems.
- Use place value and multiplication properties to multiply by tens.
- Choose a method to multiply 2-digit numbers.

## Evidence of Learning

**Summative Assessment:** Chapter 2 Test and Chapter 3 Test; Performance Task Assessments

**Formative Assessments:**

- “Show What You Know”-  
Chapter 2 - 43, 44  
Chapter 3 - 99, 100
- Mid Chapter Quizzes –  
Chapter 2 – 73, 74  
Chapter 3 – 117, 118
- Exit slips
- Notebook check
- Teacher observation
- Class Participation
- Problem of the day

**Lesson Plans**

<i>Activities</i>	<i>Timeframe</i>
<ul style="list-style-type: none"> <li>• <i>Grab and Go Centers:</i></li> <li style="padding-left: 20px;"><b>Chapter 2</b></li> <li style="padding-left: 20px;">1. Purple Cards: 3, 5</li> <li style="padding-left: 20px;">2. Literature: <u>Putting the World on a Page</u>, <u>Tickle My Memory</u>, <u>Multiplying a Good Deed</u></li> <li style="padding-left: 20px;">3. Orange Cards: 3, 5</li> <li style="padding-left: 20px;">4. Games: Triangle Products, Multiplication Marathon</li> <li style="padding-left: 20px;"><b>Chapter 3</b></li> <li style="padding-left: 20px;">1. Blue Card: 3</li> <li style="padding-left: 20px;">2. Purple Card: 5</li> <li style="padding-left: 20px;">3. Literature: <u>Putting the World on a Page</u>, <u>Multiplying a Good Deed</u></li> <li style="padding-left: 20px;">4. Orange Card: 5</li> <li style="padding-left: 20px;">5. Games: Triangle Products, Multiplication Marathon</li> <li>Ongoing activities               <ul style="list-style-type: none"> <li>o Smarter Balance Workbook Spiral Review (use different standard reviews that do not correlate with current chapter)</li> <li>o Timed Multiplication Quizzes</li> </ul> </li> </ul>	<p>Weeks 4-9</p>

- o 180 Days of Math Activities
- o Interactive Notebook

Students with Disabilities, English Language Learners, and Gifted & Talented Students:

Differentiating instruction is a flexible process that includes the planning and design of instruction, how that instruction is delivered, and how student progress is measured. Teachers recognize that students can learn in multiple ways. By providing appropriately challenging learning, teachers can maximize success for all students.

Examples of Strategies and Practices that Support Students with Disabilities:

- Use of visual and multisensory formats
- Use of assisted technology
- Use of prompts
- Modification of content and student products
- Testing accommodations
- Authentic assessments

Examples of Strategies and Practices that Support Gifted & Talented Students:

- Adjusting the pace of lessons
- Curriculum compacting
- Inquiry-based instruction
- Independent study
- Higher-order thinking skills
- Interest-based content
- Student-driven instruction
- Real-world problems and scenarios

Examples of Strategies and Practices that Support English Language Learners:

- Pre-teaching of vocabulary and concepts
- Visual learning, including graphic organizers
- Use of cognates to increase comprehension
- Teacher modeling
- Pairing students with beginning English language skills with students who have more advanced English language skills
- Scaffolding
  - word walls
  - sentence frames

<ul style="list-style-type: none"> <li>•think-pair-share</li> <li>•cooperative learning groups</li> <li>•teacher think-aloud</li> </ul>	
<i>Teacher Resources</i>	<i>Teacher Note</i>
<ul style="list-style-type: none"> <li>• Textbook</li> <li>• Textbook resource materials</li> <li>• Grab-and-Go Differentiated Centers Kit</li> <li>• Student Math Boards</li> <li>• Number line</li> <li>• Think Central resources</li> <li>• My Personal Math Trainer</li> <li>• Teacher Supplemental Binder</li> </ul>	<p>Activities can always be used during small group instruction for the use of a math center or during whole group instruction as a mini-assessment to check for understanding.</p> <p>Timed Multiplication Quizzes, 180 Days of Math Activities, and Interactive Notebook pages can be found in the Fourth Grade Supplemental Activities binder.</p>

# Mathematics- Grade 4 Unit Three

**Unit title:** Division (Chapters 4 and 5)

**Unit summary:** All students will gain a familiarity with factors and multiples. Students will generate and analyze patterns.

**Primary interdisciplinary connections:** Language Arts, Technology, Science

**21<sup>st</sup> Century Themes:** Global Awareness

## Learning Targets

**NJSLS Standards:** NBT 4.1,6, OA 4.3-5

**Technology Standards:** 8.1.5.A.1

**Content Statements:**

- |   |   |
|---|---|
| 1 | Multiples to find quotients                 |
| 2 | Remainders                                  |
| 3 | Relationships between factors and multiples |

**Big Idea:** Different strategies can help us compute numbers more efficiently.

**Unit Essential Questions:**

- What are different ways to divide numbers?

**Unit Enduring Understandings:**

- Using a number of strategies, we can learn to divide numbers.

**Unit Learning Targets**

*Students will...*

- Use multiples to estimate quotients.
- Use models to divide whole numbers that do not divide evenly.
- Use remainders to solve division problems.
- Divide tens, hundreds, and thousands by whole numbers through 10.
- Use compatible numbers to estimate quotients.
- Use the Distributive Property to find quotients.
- Use repeated subtraction and multiples to find quotients.
- Use partial quotients to divide.
- Use base-ten blocks to model division with regrouping.
- Use place value to determine where to place the first digit of a quotient.
- Divide multi-digit numbers by 1-digit divisors.

- Determine whether a number is a factor of a given number.
- Find relationships between factors and multiples.
- Determine whether a number is prime or composite.
- Generate number patterns and describe the pattern's features.

### Evidence of Learning

**Summative Assessment:** Chapter 4 Test, Chapter 5 Test, Performance Task Assessments

**Formative Assessments:**

- “Show What You Know”-  
Chapter 4 – 135, 136  
Chapter 5 – 191, 192
- Mid Chapter Quizzes –  
Chapter 4 – 161, 162  
Chapter 5 – 205, 206
- Exit slips
- Notebook check
- Teacher observation
- Class Participation
- Problem of the day

### Lesson Plans

<i>Activities</i>	<i>Timeframe</i>
<ul style="list-style-type: none"> <li>• <i>Grab and Go Centers:</i>  <b>Chapter 4</b> <ol style="list-style-type: none"> <li>1. Purple Cards: 3, 7, 9</li> <li>2. Blue Cards: 7, 9</li> <li>3. Literature: <u>The Division Champs, Thirst Quencher</u></li> <li>4. Orange Cards: 7, 9</li> <li>5. Games: Remainder or Not, Divide All Five, Divide to Win</li> </ol>   <b>Chapter 5</b> <ol style="list-style-type: none"> <li>1. Purple Card: 3</li> <li>2. Literature: <u>Eratosthenes and His Sieve</u></li> <li>3. Blue Card: 17</li> <li>4. Orange Cards: 5, 15, 17</li> </ol> </li> </ul>	Weeks 10-15

## 5. Games: Factor Farm

### Ongoing activities

- o Smarter Balance Workbook Spiral Review (use different standard reviews that do not correlate with current chapter)
- o Timed Multiplication Quizzes
- o 180 Days of Math Activities
- o Interactive Notebook

### Students with Disabilities, English Language Learners, and Gifted & Talented Students:

Differentiating instruction is a flexible process that includes the planning and design of instruction, how that instruction is delivered, and how student progress is measured. Teachers recognize that students can learn in multiple ways. By providing appropriately challenging learning, teachers can maximize success for all students.

### Examples of Strategies and Practices that Support Students with Disabilities:

- Use of visual and multisensory formats
- Use of assisted technology
- Use of prompts
- Modification of content and student products
- Testing accommodations
- Authentic assessments

### Examples of Strategies and Practices that Support Gifted & Talented Students:

- Adjusting the pace of lessons
- Curriculum compacting
- Inquiry-based instruction
- Independent study
- Higher-order thinking skills
- Interest-based content
- Student-driven instruction
- Real-world problems and scenarios

### Examples of Strategies and Practices that Support English Language Learners:

- Pre-teaching of vocabulary and concepts

<ul style="list-style-type: none"> <li>• Visual learning, including graphic organizers</li> <li>• Use of cognates to increase comprehension</li> <li>• Teacher modeling</li> <li>• Pairing students with beginning English language skills with students who have more advanced English language skills</li> <li>• Scaffolding <ul style="list-style-type: none"> <li>•word walls</li> <li>•sentence frames</li> <li>•think-pair-share</li> <li>•cooperative learning groups</li> <li>•teacher think-aloud</li> </ul> </li> </ul>	
<p><i>Teacher Resources</i></p>	<p><i>Teacher Note</i></p>
<ul style="list-style-type: none"> <li>• Textbook</li> <li>• Textbook resource materials</li> <li>• Grab-and-Go Differentiated Centers Kit</li> <li>• Student Math Boards</li> <li>• Grid paper</li> <li>• Number line</li> <li>• Think Central resources</li> <li>• My Personal Math Trainer</li> <li>• Teacher Supplemental Binder</li> </ul>	<p style="text-align: center;">Activities can always be used during small group instruction for the use of a math center or during whole group instruction as a mini-assessment to check for understanding.</p> <p>Timed Multiplication Quizzes, 180 Days of Math Activities, and Interactive Notebook pages can be found in the Fourth Grade Supplemental Activities binder.</p>



## Mathematics- Grade 4 Unit Four

**Unit title:** Fractions & Decimals (Chapters 6, 7, 8, and 9)

**Unit summary:** All students will develop an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers.

**Primary interdisciplinary connections:** Language Arts, Technology, Science

**21<sup>st</sup> Century Themes:** Financial, Economic, Business and Entrepreneurial Literacy

### Learning Targets

**NJSLS Standards:** NF 4.1-7; MD 4.2

**Technology Standards:** 8.1.5.A.1

**Content Statements:**

1	Equivalent fractions
2	Simplest form
3	Common denominators
4	Add, subtract and multiply fractions

**Big Idea:** Different strategies can help us add, subtract and multiply fractions and decimals.

**Unit Essential Questions:**

- How do you use fractions to solve real world problems?

**Unit Enduring Understandings:**

- Using a variety of strategies, we can use fractions to solve real-world problems.

**Unit Learning Targets**

*Students will...*

- Use models to show and generate equivalent fractions.
- Write and identify equivalent fractions in simplest form.
- Use equivalent fractions to represent a pair of fractions as fractions with a common denominator.
- Use the strategy, *make a table*, to solve problems using equivalent fractions.
- Compare and order fractions.
- Decompose a fraction by writing it as a sum of fractions with the same denominators.
- Use models to represent and find sums and differences involving fractions.
- Write fractions greater than 1 as mixed numbers and write mixed numbers as fractions greater than 1.

- Write a fraction as a product of a whole number and a unit fraction.
- Use models to multiply fractions by whole numbers.
- Record tenths/hundredths as fractions and as decimals.
- Translate among representations of fractions, decimals, and money.
- Compare decimals to hundredths by reasoning about their size.

## Evidence of Learning

**Summative Assessment:** Chapter 6 Test, Chapter 7 Test, Chapter 8 Test, Chapter 9 Test, Performance Task Assessments

**Formative Assessments:**

- “Show What You Know”-
  - Chapter 6 – 225, 226
  - Chapter 7 – 265, 266
  - Chapter 8 – 313, 314
  - Chapter 9 – 341, 342
- Mid Chapter Quizzes –
  - Chapter 6 – 247, 248
  - Chapter 7 – 287, 288
  - Chapter 8 – 323, 324
  - Chapter 9 – 363, 364
- Exit slips
- Notebook check
- Teacher observation
- Class Participation
- Problem of the day

## Lesson Plans

<i>Activities</i>	<i>Timeframe</i>
<ul style="list-style-type: none"> <li>• (Optional Enrichment) Project: <i>Building Custom Guitars</i> (pg. 224)</li> <li>• <i>Grab and Go Centers:</i> <ul style="list-style-type: none"> <li><b>Chapter 6</b></li> <li>1. Purple Cards: 6, 8</li> <li>2. Blue Card: 6</li> <li>3. Literature: <u>Melody in Fractions</u>, <u>Sleeping Half the Day Away</u>, <u>Fundraising Fair</u></li> <li>4. Orange Card: 6</li> <li>5. Games: Fraction Action</li> </ul> </li> </ul>	Weeks 16-24

### **Chapter 7**

1. Purple Card: 6
2. Literature: Sleeping Half the Day Away
3. Blue Cards: 6, 8
4. Orange Card: 8
5. Games: Fraction Concentration, Fraction Action

### **Chapter 8**

1. Purple Card: 6
2. Literature: Melody in Fractions
3. Blue Card: 6

### **Chapter 9**

1. Blue Card: 10
2. Literature: Melody in Fractions, Elizabeth's Groovy Green Racing Machine, And The Total Is, Decimals on a Diamond
3. Orange Card: 10
4. Games: Fraction Action, Order Please!

#### Ongoing activities

- o Smarter Balance Workbook Spiral Review (use different standard reviews that do not correlate with current chapter)
- o Timed Multiplication Quizzes
- o 180 Days of Math Activities
- o Interactive Notebook

Students with Disabilities, English Language Learners, and Gifted & Talented Students:

Differentiating instruction is a flexible process that includes the planning and design of instruction, how that instruction is delivered, and how student progress is measured. Teachers recognize that students can learn in multiple ways. By providing appropriately challenging learning, teachers can maximize success for all students.

Examples of Strategies and Practices that Support Students with Disabilities:

- Use of visual and multisensory formats

<ul style="list-style-type: none"> <li>• Use of assisted technology</li> <li>• Use of prompts</li> <li>• Modification of content and student products</li> <li>• Testing accommodations</li> <li>• Authentic assessments</li> </ul> <p>Examples of Strategies and Practices that Support Gifted &amp; Talented Students:</p> <ul style="list-style-type: none"> <li>• Adjusting the pace of lessons</li> <li>• Curriculum compacting</li> <li>• Inquiry-based instruction</li> <li>• Independent study</li> <li>• Higher-order thinking skills</li> <li>• Interest-based content</li> <li>• Student-driven instruction</li> <li>• Real-world problems and scenarios</li> </ul> <p>Examples of Strategies and Practices that Support English Language Learners:</p> <ul style="list-style-type: none"> <li>• Pre-teaching of vocabulary and concepts</li> <li>• Visual learning, including graphic organizers</li> <li>• Use of cognates to increase comprehension</li> <li>• Teacher modeling</li> <li>• Pairing students with beginning English language skills with students who have more advanced English language skills</li> <li>• Scaffolding <ul style="list-style-type: none"> <li>•word walls</li> <li>•sentence frames</li> <li>•think-pair-share</li> <li>•cooperative learning groups</li> <li>•teacher think-aloud</li> </ul> </li> </ul>	
<i>Teacher Resources</i>	<i>Teacher Note</i>
<ul style="list-style-type: none"> <li>• Textbook</li> <li>• Textbook resource materials</li> <li>• Grab-and-Go Differentiated Centers Kit</li> <li>• Student Math Boards</li> <li>• Grid paper</li> <li>• Think Central resources</li> <li>• My Personal Math Trainer</li> <li>• Teacher Supplemental Binder</li> </ul>	<p>Activities can always be used during small group instruction for the use of a math center or during whole group instruction as a mini-assessment to check for understanding.</p> <p>Timed Multiplication Quizzes, 180 Days of Math Activities, and Interactive Notebook pages can be found in the Fourth Grade Supplemental Activities binder.</p>



# Mathematics- Grade 4 Unit Five

<b>Unit title:</b> Geometry (Chapters 10 and 11)	
<b>Unit summary:</b> All students will generate and analyze patterns. Students will draw and identify lines and angles, and classify shapes by properties of their lines and angles. Students will understand concepts of angles and measure angles.	
<b>Primary interdisciplinary connections:</b> Language Arts, Technology, Science	
<b>21<sup>st</sup> Century Themes:</b> Global Awareness	
<b>Learning Targets</b>	
<b>NJSLS Standards:</b> NF 4.1-7; MD 4.2	
<b>Technology Standards:</b> 8.1.5.A.1	
<b>Content Statements:</b>	
1	Line, rays and angles
2	Classifying triangles and quadrilaterals
3	Line symmetry
4	Measure and draw angles
<b>Big Idea:</b> Different strategies can help us identify and measure two-dimensional figures.	
<b>Unit Essential Questions:</b> <ul style="list-style-type: none"> <li>• How can you use geometric shapes to solve real-world problems?</li> </ul>	<b>Unit Enduring Understandings:</b> <ul style="list-style-type: none"> <li>• Classifying geometric shapes can help use select strategies to help us solve real-world problems.</li> </ul>
<b>Unit Learning Targets</b> <i>Students will...</i> <ul style="list-style-type: none"> <li>• Identify and draw points, lines, line segments, rays and angles.</li> <li>• Classify triangles by the size of their angles.</li> <li>• Identify and draw parallel and perpendicular lines.</li> <li>• Sort and classify quadrilaterals.</li> <li>• Determine whether a figure has a line of symmetry.</li> <li>• Relate angles and fractional parts of a circle.</li> <li>• Use a protractor to measure and draw angles.</li> </ul>	

## Evidence of Learning

**Summative Assessment:** Chapter 10 Test, Chapter 11 Test, and Performance Task Assessments

**Formative Assessments:**

- “Show What You Know”-  
Chapter 10 – 379, 380  
Chapter 11 – 415, 416
- Mid Chapter Quizzes –  
Chapter 10 – 397, 398  
Chapter 11 – 429, 430
- Exit slips
- Notebook check
- Teacher observation
- Class Participation
- Problem of the day

## Lesson Plans

<i>Activities</i>	<i>Timeframe</i>
<ul style="list-style-type: none"> <li>• (Optional Enrichment) Project: <i>Landscape Architects</i> (pg. 378)</li> <li>• <i>Grab and Go Centers:</i> <ul style="list-style-type: none"> <li><b>Chapter 10</b></li> <li>1. Purple Card: 13</li> <li>2. Blue Card: 13</li> <li>3. Literature: <u>A New Angle on Trains and Train Stations, Skateboarding Takes Shape, A Mirror Image</u></li> <li>4. Orange Card: 13</li>   <li><b>Chapter 11</b></li> <li>1. Literature: <u>Skateboarding Takes Shape</u></li> <li>2. Blue Card: 13</li> <li>3. Orange Card: 13</li> </ul> </li> </ul> <p>Ongoing activities</p> <ul style="list-style-type: none"> <li>o Smarter Balance Workbook Spiral Review (use different standard reviews that do not correlate with current chapter)</li> </ul>	<p>Weeks 25-29</p>

- o Timed Multiplication Quizzes
- o 180 Days of Math Activities
- o Interactive Notebook

Students with Disabilities, English Language Learners, and Gifted & Talented Students:

Differentiating instruction is a flexible process that includes the planning and design of instruction, how that instruction is delivered, and how student progress is measured. Teachers recognize that students can learn in multiple ways. By providing appropriately challenging learning, teachers can maximize success for all students.

Examples of Strategies and Practices that Support Students with Disabilities:

- Use of visual and multisensory formats
- Use of assisted technology
- Use of prompts
- Modification of content and student products
- Testing accommodations
- Authentic assessments

Examples of Strategies and Practices that Support Gifted & Talented Students:

- Adjusting the pace of lessons
- Curriculum compacting
- Inquiry-based instruction
- Independent study
- Higher-order thinking skills
- Interest-based content
- Student-driven instruction
- Real-world problems and scenarios

Examples of Strategies and Practices that Support English Language Learners:

- Pre-teaching of vocabulary and concepts
- Visual learning, including graphic organizers
- Use of cognates to increase comprehension
- Teacher modeling
- Pairing students with beginning English language skills with students who have more advanced English language skills
- Scaffolding
  - word walls



<ul style="list-style-type: none"> <li>•sentence frames</li> <li>•think-pair-share</li> <li>•cooperative learning groups</li> <li>•teacher think-aloud</li> </ul>	
<i>Teacher Resources</i>	<i>Teacher Note</i>
<ul style="list-style-type: none"> <li>• Textbook</li> <li>• Textbook resource materials</li> <li>• Grab-and-Go Differentiated Centers Kit</li> <li>• Student Math Boards</li> <li>• Grid paper</li> <li>• GeoBoards</li> <li>• Pattern blocks</li> <li>• Protractors</li> <li>• Think Central resources</li> <li>• My Personal Math Trainer</li> <li>• Teacher Supplemental Binder</li> </ul>	<p style="text-align: center;">Activities can always be used during small group instruction for the use of a math center or during whole group instruction as a mini-assessment to check for understanding.</p> <p>Timed Multiplication Quizzes, 180 Days of Math Activities, and Interactive Notebook pages can be found in the Fourth Grade Supplemental Activities binder.</p>

## Mathematics- Grade 4 Unit Six

<b>Unit title:</b> Measurement (Chapters 12 and 13)	
<b>Unit summary:</b> All students will solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	
<b>Primary Interdisciplinary Connections:</b> Language Arts, Technology, Science	
<b>21<sup>st</sup> Century Themes:</b> Global Awareness	
<b>Learning Targets</b>	
<b>NJSLS Standards:</b> MD 4.1-4	
<b>Technology Standards:</b> 8.1.5.A.1	
<b>Content Statements:</b>	
1	Customary units of length, weight, and liquid volume
2	Line plots
3	Metric units of mass and liquid volume
4	Units of time
5	Measuring perimeter and area
<b>Big Idea:</b> Different strategies can help us compare units of measurement.	
<b>Unit Essential Questions:</b> <ul style="list-style-type: none"> <li>• How can we use measuring in our everyday lives?</li> </ul>	<b>Unit Enduring Understandings:</b> <ul style="list-style-type: none"> <li>• We can use units of measurements in real life scenarios to help us solve mathematical problems.</li> </ul>
<b>Unit Learning Targets</b> <i>Students will...</i> <ul style="list-style-type: none"> <li>• Use benchmarks to understand the relative sized of measurement units.</li> <li>• Use models to compare customary units of length, weight, and liquid volume.</li> <li>• Make and interpret line plots with fractional data.</li> <li>• Use models to compare metric units of length, mass, and liquid volume.</li> <li>• Use models to compare units of time.</li> <li>• Solve problems involving mixed measures.</li> <li>• Use patterns to write number pairs for measurement units.</li> <li>• Use formulas to find the perimeter and area of a rectangle.</li> </ul>	

## Evidence of Learning

**Summative Assessment:** Chapter 12 Test, Chapter 13 Test, Performance Task Assessments

**Formative Assessments:**

- “Show What You Know”-  
Chapter 12 – 443, 444  
Chapter 13 – 495, 496
- Mid Chapter Quizzes –  
Chapter 12 – 465, 466  
Chapter 13 – 509, 510
- Exit slips
- Notebook check
- Teacher observation
- Class Participation
- Problem of the day

## Lesson Plans

<i>Activities</i>	<i>Timeframe</i>
<ul style="list-style-type: none"> <li>• <i>Grab and Go Centers:</i></li> <li style="padding-left: 20px;"><b>Chapter 12</b></li> <li style="padding-left: 40px;">1. Purple Cards: 14, 16</li> <li style="padding-left: 40px;">2. Blue Cards: 1, 13, 14, 16</li> <li style="padding-left: 40px;">3. Literature: <u>Measuring the Mississippi, A Trip to the Pond</u></li> <li style="padding-left: 40px;">4. Orange Card: 16</li> <li style="padding-left: 40px;">5. Games: Time to Go</li>   <li style="padding-left: 20px;"><b>Chapter 13</b></li> <li style="padding-left: 40px;">1. Literature: <u>Fighting Fire with Fire, Paint by Numbers, Designing a Skate Park</u></li> <li style="padding-left: 40px;">2. Blue Cards: 3, 4, 20</li> <li style="padding-left: 40px;">3. Orange Card: 20</li> <li style="padding-left: 40px;">4. Purple Card: 20</li>   <li>Ongoing activities                             <ul style="list-style-type: none"> <li>o Smarter Balance Workbook Spiral Review (use different standard reviews that do not correlate with current chapter)</li> <li>o Timed Multiplication Quizzes</li> <li>o 180 Days of Math Activities</li> <li>o Interactive Notebook</li> </ul> </li> </ul>	<p>Weeks 30-35</p>

Students with Disabilities, English Language Learners, and Gifted & Talented Students:

Differentiating instruction is a flexible process that includes the planning and design of instruction, how that instruction is delivered, and how student progress is measured. Teachers recognize that students can learn in multiple ways. By providing appropriately challenging learning, teachers can maximize success for all students.

Examples of Strategies and Practices that Support Students with Disabilities:

- Use of visual and multisensory formats
- Use of assisted technology
- Use of prompts
- Modification of content and student products
- Testing accommodations
- Authentic assessments

Examples of Strategies and Practices that Support Gifted & Talented Students:

- Adjusting the pace of lessons
- Curriculum compacting
- Inquiry-based instruction
- Independent study
- Higher-order thinking skills
- Interest-based content
- Student-driven instruction
- Real-world problems and scenarios

Examples of Strategies and Practices that Support English Language Learners:

- Pre-teaching of vocabulary and concepts
- Visual learning, including graphic organizers
- Use of cognates to increase comprehension
- Teacher modeling
- Pairing students with beginning English language skills with students who have more advanced English language skills
- Scaffolding
  - word walls
  - sentence frames
  - think-pair-share
  - cooperative learning groups
  - teacher think-aloud

*Teacher Resources*

*Teacher Note*

- Textbook
- Textbook resource materials
- Grab-and-Go Differentiated Centers Kit
- Student Math Boards
- Grid paper
- GeoBoards
- Rulers
- Graduated cylinders
- Triple beam balance
- Think Central resources
- My Personal Math Trainer
- Teacher Supplemental Binder

Activities can always be used during small group instruction for the use of a math center or during whole group instruction as a mini-assessment to check for understanding.

Timed Multiplication Quizzes, 180 Days of Math Activities, and Interactive Notebook pages can be found in the Fourth Grade Supplemental Activities binder.

# Mathematics- Grade 4 Unit Seven

<b>Unit title:</b> Bridging the Gap – Getting Ready for Fifth Grade	
<b>Unit summary:</b> In this unit, students will build on Grade 4 skills to prepare for Grade 5 content.	
<b>Primary Interdisciplinary Connections:</b> Language Arts, Technology, Science and Social Studies	
<b>21<sup>st</sup> Century Themes:</b> Global Awareness & Financial, Economic, Business and Entrepreneurial Literacy	
<b>Learning Targets</b>	
<b>NJSLS Standards:</b> NBT 4.2-6; OA 4.3-5; NF 4.3-7; MD 4.3; NBT 4.1-4,6,7; OA 5.1,3; NF 5.2-5,7; MD 5.5; G 5.1	
<b>Technology Standards:</b> 8.1.5.A.1	
<b>Content Statements:</b>	
1	Add and subtract dollars and cents
2	Algebra: Order of Operations
3	Divide by multiples of 10
4	Model division with 2-digit divisors
5	Decimals and place value
6	Fraction products
<b>Big Idea:</b> To continue growing and improving skills for next year's content.	
<b>Unit Essential Questions:</b> <ul style="list-style-type: none"> <li>• How can you further your knowledge of current skills to prepare for higher level content in the 5<sup>th</sup> grade?</li> </ul>	<b>Unit Enduring Understandings:</b> <ul style="list-style-type: none"> <li>• Using different strategies can build current skills and advance students' knowledge to prepare for next year.</li> </ul>
<b>Unit Learning Targets</b> <i>Students will...</i> <ul style="list-style-type: none"> <li>• Find sums and differences of decimal amounts in dollars and cents.</li> <li>• Use the order of operations to find the value of expressions.</li> <li>• Use patterns to divide by multiples of ten.</li> <li>• Use base-ten blocks to divide with 2-digit divisors.</li> <li>• Read and write decimals using place value.</li> <li>• Compare decimals to the hundredths.</li> </ul>	

- Decompose multiples of 10, 100, and 1,000.
- Use multiplication to describe patterns.
- Add and subtract fractions when one denominator is a multiple of the other.
- Write division problems as fractions.
- Use ordered pairs to locate points on a grid.
- Use tiling to find the area of a rectangle.
- Find the product of three factors.
- Find the area of the base of a rectangular prism.

### Evidence of Learning

**Summative Assessment:** Getting Ready for Grade 5 Test 1 and Getting Ready for Grade 5 Test 2

**Formative Assessments:**

- Exit slips
- Quizzes
- Notebook check
- Teacher observation
- Class Participation
- Problem of the day

### Lesson Plans

<i>Activities</i>	<i>Timeframe</i>
<ul style="list-style-type: none"> <li>• Optional Project: <i>The Black-Footed Ferret</i> (pg. B7)</li> <li>• Optional Project: <i>Fundraiser</i> (pg. B11)</li> <li>• Optional Project: <i>Creating Cars</i> (pg. B15)</li> </ul> <p>Ongoing activities</p> <ul style="list-style-type: none"> <li>o Smarter Balance Workbook Spiral Review (use different standard reviews that do not correlate with current chapter)</li> <li>o Timed Multiplication Quizzes</li> <li>o 180 Days of Math Activities</li> <li>o Interactive Notebook</li> </ul> <p>Students with Disabilities, English Language Learners, and Gifted &amp; Talented Students:</p>	<p>Weeks 36-38</p>

<p>Differentiating instruction is a flexible process that includes the planning and design of instruction, how that instruction is delivered, and how student progress is measured. Teachers recognize that students can learn in multiple ways. By providing appropriately challenging learning, teachers can maximize success for all students.</p> <p>Examples of Strategies and Practices that Support Students with Disabilities:</p> <ul style="list-style-type: none"> <li>• Use of visual and multisensory formats</li> <li>• Use of assisted technology</li> <li>• Use of prompts</li> <li>• Modification of content and student products</li> <li>• Testing accommodations</li> <li>• Authentic assessments</li> </ul> <p>Examples of Strategies and Practices that Support Gifted &amp; Talented Students:</p> <ul style="list-style-type: none"> <li>• Adjusting the pace of lessons</li> <li>• Curriculum compacting</li> <li>• Inquiry-based instruction</li> <li>• Independent study</li> <li>• Higher-order thinking skills</li> <li>• Interest-based content</li> <li>• Student-driven instruction</li> <li>• Real-world problems and scenarios</li> </ul> <p>Examples of Strategies and Practices that Support English Language Learners:</p> <ul style="list-style-type: none"> <li>• Pre-teaching of vocabulary and concepts</li> <li>• Visual learning, including graphic organizers</li> <li>• Use of cognates to increase comprehension</li> <li>• Teacher modeling</li> <li>• Pairing students with beginning English language skills with students who have more advanced English language skills</li> <li>• Scaffolding <ul style="list-style-type: none"> <li>•word walls</li> <li>•sentence frames</li> <li>•think-pair-share</li> <li>•cooperative learning groups</li> <li>•teacher think-aloud</li> </ul> </li> </ul>	
<i>Teacher Resources</i>	<i>Teacher Note</i>
<ul style="list-style-type: none"> <li>• Textbook</li> </ul>	<p>The student targets or objectives are for the topics that need to be</p>



<ul style="list-style-type: none"><li>• Textbook resource materials</li><li>• Grab-and-Go Differentiated Centers Kit</li><li>• Student Math Boards</li><li>• Think Central resources</li><li>• My Personal Math Trainer</li><li>• Teacher Supplemental Binder</li></ul>	<p>addressed. Please use these as guidelines for creating activities.</p> <p>Timed Multiplication Quizzes, 180 Days of Math Activities, and Interactive Notebook pages can be found in the Fourth Grade Supplemental Activities binder.</p>
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