



## **FOURTH GRADE MATHEMATICS CURRICULUM**

### **Rochelle Park Mission Statement**

We envision an educational community, which inspires and empowers all students to become self-sufficient and to thrive in a complex, global society.

### **Rochelle Park Vision Statement**

- ❖ Establish and maintain a shared responsibility among home, school, and the greater community which fosters student learning, accountability, and citizenship.
- ❖ To provide curricula that enables all students to meet or exceed current national, state, and local standards.
- ❖ We will utilize a variety of formative and summative assessments in order to differentiate and guide instruction.
- ❖ The district, as a Professional Learning Community, will provide on-going professional development training and opportunities for collaboration among faculty and staff.



## PACING CHART

Chapter	Time Frame
Ch. 1: Place Value, Addition, and Subtraction to One Million	15 days
Ch. 2: Multiply by 1-Digit Numbers	17 days
Ch. 3: Multiply 2-Digit Numbers	12 days
Ch. 4: Divide by a 1-Digit Number	17 days
Ch. 5: Factors, Multiples, and Patterns	15 days
Ch. 6: Fraction Equivalence and Comparison	17 days
Ch. 7: Add and Subtract Fractions	19 days
Ch. 8: Multiply Fractions by Whole Numbers	12 days
Ch. 9: Relate Fractions and Decimals	18 days
Ch. 10: Two-Dimensional Figures	13 days
Ch. 11: Angles	12 days
Ch. 12: Relative Sizes of Measurement Units	20 days
Ch. 13: Algebra: Perimeter and Area	10 days



## **Mathematic Domains**

### Operations and Algebraic Thinking

- Represent and solve problems involving addition and subtraction.
- Understand and apply properties of operations and the relationship between addition and subtraction.
- Add and subtract within 20.
- Work with addition and subtraction equations.

### Number and Operations in Base Ten

- Extend the counting sequence.
- Understand place value.
- Use place value understanding and properties of operations to add and subtract.

### Measurement and Data

- Measure lengths indirectly and by iterating length units.
- Tell and write time.
- Represent and interpret data.

### Geometry

- Reason with shapes and their attributes.

## **Mathematical Practices**

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.



### 8.1 Educational Technology

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.

### 8.2 Technology Education, Engineering, Design, and Computational Thinking-Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

## Educational Technology

**Indicators:** 8.1.5.A.1, 8.1.5.A.2, 8.1.5.A.3, 8.1.5.F.1, 8.2.5.C.6, 8.2.5.E.2, 8.2.5.E.4

- Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
- Format a document using a word processing application to enhance text and include graphics, symbols, and/or pictures.
- Use a graphic organizer to organize information about problem or issue.
- Apply digital tools to collect, organize, and analyze data that support a scientific finding.
- Examine a malfunctioning tool and identify the process to troubleshoot and present options to repair the tool.
- Graph data using a spreadsheet, analyze and produce a report that explains the analysis of data.
- Demonstrate an understanding of how a computer takes input of data, processes and stores the data through a series of commands, and outputs information.
- Use appropriate terms in conversation (e.g. algorithm, program, debug, loop, events, procedures, memory, storage, processing, software, coding, procedure, and data).



## 21<sup>st</sup> Century Life and Careers Skills

**Indicators:** 9.1.4.A.2, 9.1.4.B.1, 9.1.4.B.3, 9.1.4.C.4, 9.1.4.D.1, 9.1.4.E.1, 9.1.4.E.2, 9.2.4.A.4

- Identify potential sources of income.
- Differentiate between financial wants and needs.
- Explain what a budget is and why it is important.
- Determine the relationship among income, expenses and interests.
- Determine how saving contributes to financial well-being.
- Determine the factors that influence consumer decisions related to money.
- Apply comparison-shopping skills to purchasing decisions.
- Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

## Career Ready Practices

**Indicators:** CRP2, CRP4, CRP6, CRP8, CRP11, CRP12

- Apply appropriate academic and technical skills.
- Communicate clearly and effectively and with reason.
- Demonstrate creativity and innovation.
- Utilize critical thinking to make sense of problems and persevere in solving them.
- Use technology to enhance productivity.
- Work productively in teams while using cultural global competence.

ROCHELLE PARK SCHOOL  
DISTRICT





<b>Grade:</b> Fourth		<b>Content:</b> Mathematics	
<b>Domain:</b> Numbers and Operation in Base Ten		<b>Topic:</b> Place Value, Addition, and Subtraction to One Million	<b>Time Frame:</b> 13-15 days
<b>Standards:</b> 4.NBT.A.1      4.NBT.A.3 4.NBT.A.2      4.NBT.B.4		<b>Focus Mathematical Practices:</b> MP2: Reason abstractly and quantitatively. MP6: Attend to precision	<b>PARCC Model Content Framework:</b> Major Content: 4.NBT.A, 4.NBT.B Supporting Content: n/a Additional Content: n/a

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>● How can you use place value to compare, add, subtract, and estimate with whole numbers?</li> <li>● How can you describe the value of a digit?</li> <li>● How can you read and write numbers through hundred thousands?</li> <li>● How can you compare and order numbers?</li> <li>● How can you round numbers?</li> <li>● How can you rename a whole number?</li> <li>● How can you add and subtract whole numbers?</li> <li>● How can you use the strategy draw a diagram to solve comparison problems with addition and subtraction?</li> </ul>	<ul style="list-style-type: none"> <li>● Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.</li> <li>● Use place value understanding to round multi-digit whole numbers to any place.</li> <li>● Fluently add and subtract multi-digit whole numbers using the standard algorithm.</li> </ul>



Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <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> <li>● Add and subtract whole numbers and determine whether solutions to addition and subtraction problems are reasonable.</li> <li>● Use the strategy draw a diagram to solve comparison problems with addition and subtraction.</li> </ul>	<p><b>Students will know how to:</b></p> <ul style="list-style-type: none"> <li>● Explain the quantitative relationship between places of a multi-digit whole number up to one million when moving from right to left.</li> <li>● Compare numbers using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> for two multi-digit whole numbers up to one million.</li> <li>● Round multi-digit whole numbers up to one million to any place.</li> <li>● Fluently add and subtract multi-digit whole numbers using the standard algorithm.</li> </ul>

Vocabulary	Resources	Assessment/Project
<p>estimate expanded form period round standard form word form</p>	<ul style="list-style-type: none"> <li>● GOMath Lessons 1.1-1.8</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 1 Test</li> </ul>





Differentiated Instruction		Interdisciplinary Connections
RTI/ELL	Enrichment	
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>	<p><b>Literature Connection:</b> <u>The World's Tallest Buildings</u>. Students will read the book and learn about place value to order numbers and to add and subtract multi-digit numbers.</p> <p><b>Social Studies Connection:</b> Ask Me About Area (Grab N Go Kit). Students will solve addition and subtraction problems relating to the area of states.</p>



<b>Grade:</b> Fourth		<b>Content:</b> Mathematics	
<b>Domain:</b> Operations and Algebraic Thinking, Number and Operations in Base Ten		<b>Topic:</b> Multiply by 1-Digit Numbers	<b>Time Frame:</b> 15-17 days
<b>Standards:</b> 4.OA.A.1 4.OA.A.2 4.OA.A.3 4.NBT.A.1 4.NBT.A.3 4.NBT.B.5		<b>Focus Mathematical Practices:</b> MP1: Reason abstractly and quantitatively MP4: Model with mathematics	<b>PARCC Model Content Framework:</b> Major Content: 4.OA.A, 4.NBT.A, 4.NBT.B Supporting Content: n/a Additional Content: n/a

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>● What strategies can you use to multiply by one-digit numbers?</li> <li>● How can does a model help you solve comparison problems?</li> <li>● How does understanding place value help you multiple tens, hundreds, and thousands?</li> <li>● How can you estimate products by rounding and determine if exact answers are reasonable?</li> <li>● How can you use the Distributive Property to multiply a 2-digit number by a 1-digit number?</li> <li>● How can you use expanded for, place value, and partial products to multiply a multi-digit number by a 1-digit number?</li> <li>● How can you use mental math and the Associative Property to help multiply numbers?</li> <li>● When can you use the draw a diagram strategy or equations to solve a multi-step multiplication problem?</li> <li>● How can you use regrouping to multiply a 2-, 3-, and 4-digit number by a 1-digit number?</li> </ul>	<ul style="list-style-type: none"> <li>● Interpret a multiplication equation as a comparison.</li> <li>● Represent verbal statements of multiplicative comparisons as multiplication equations.</li> <li>● Multiply to solve word problems involving multiplicative comparison.</li> <li>● Solve multi-step word problems.</li> <li>● Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.</li> <li>● Use place value understanding to round multi-digit whole numbers to any place.</li> <li>● Multiply a whole number of up to four digits by a one0digit whole number.</li> <li>● Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</li> </ul>



Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Solve problems using equations and comparisons.</li> <li>● Multiply tens, hundreds, and thousands by whole numbers through 10.</li> <li>● Estimate products by rounding and determine if exact answers to multiplication problems are reasonable.</li> <li>● Use the Distributive Property to multiply a 2-digit number by a 1-digit number.</li> <li>● Use expanded form, partial products, and mental math to multiply whole numbers.</li> <li>● Use the draw a diagram strategy to solve multi-step multiplication problems.</li> <li>● Use regrouping to multiply 2-, 3-, and 4-digit numbers by a 1-digit number.</li> <li>● Represent and solve multi-step problems using equations.</li> </ul>	<p>Students will know how to:</p> <ul style="list-style-type: none"> <li>● Round multi-digit whole numbers up to one million to any place.</li> <li>● Write multiplication equations from multiplicative comparisons given in words and describe a multiplication equation in words.</li> <li>● Multiply 3-digit by 1-digit numbers to solve word problems involving multiplicative comparisons.</li> <li>● Write an equation to identify the arithmetic operation written in a word problem.</li> <li>● Use strategies to multiply multi-digit numbers and explain the answer using equations, rectangular arrays, and area models.</li> </ul>

Vocabulary	Resources	Assessment/Project
<p>distributive property partial product</p>	<ul style="list-style-type: none"> <li>● GOMath Lessons 2.1-2.12</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 2 Test</li> </ul>



Differentiated Instruction		Interdisciplinary Connections
RTI/ELL	Enrichment	
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>	<p><b>Literature Connection:</b> <u>Multiplying a Good Deed</u>.</p> <p><b>Social Studies Connection:</b> Students will use multiplication strategies to plan a vacation and accommodate certain number of guests with restrictions how to bring down budget and find the total budget to build resort.</p>



<b>Grade:</b> Fourth		<b>Content:</b> Mathematics	
<b>Domain:</b> Operations in Algebraic Thinking, Number and Operations in Base Ten		<b>Topic:</b> Multiply 2-Digit Numbers	<b>Time Frame:</b> 10-12 days
<b>Standards:</b> 4.OA.A.3 4.NBT.B5		<b>Focus Mathematical Practices:</b> MP4: Model with mathematics. MP8: Look for and express regularity in repeated reasoning.	<b>PARCC Model Content Framework:</b> Major Content: 4.OA.A, 4.NBT.B Supporting Content: n/a Additional Content: n/a

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>• What strategies can you use to multiply 2-digit numbers?</li> <li>• What strategies can you use to multiply by tens and estimating products?</li> <li>• How can you use area models, partial products, place value, and regrouping to multiply 2-digit numbers?</li> <li>• How can you use the strategy use the diagram to solve multi-step multiplication problems?</li> </ul>	<ul style="list-style-type: none"> <li>• Solve multi-step word problems posed with whole numbers and having whole number answers using the four operations, including problems in which remainders must be interpreted.</li> <li>• Multiply a whole number up to four digits by a one-digit whole number, and multiply two two0digit numbers, using strategies based on place value and the propertied of operations.</li> <li>• Illustrate and explain the calculations by using equations, rectangular arrays, and/or area models.</li> </ul>

Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Use place value, multiplication properties, estimating products by rounding, or compatible numbers to multiply by ten.</li> <li>• Use area models, partial products, place value, and regrouping to multiply 2-digit numbers.</li> <li>• Use the strategy draw a diagram to solve multi-step multiplication problems.</li> </ul>	<p><b>Students will know how to:</b></p> <ul style="list-style-type: none"> <li>• Multiply 3-digit by 1-digit numbers to solve word problems involving multiplicative comparisons.</li> <li>• Use strategies to multiply multi-digit numbers and explain the answer using equations, rectangular arrays, and area models.</li> </ul>



Vocabulary	Resources	Assessment/Project
compatible numbers	<ul style="list-style-type: none"> <li>● GOMath Lessons 3.1-3.7</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 3 Test</li> </ul>
Differentiated Instruction		Interdisciplinary Connections
RTI/ELL	Enrichment	<p><b>Science Connection:</b> Students will test water samples and will use multiplication strategies when performing calculations.</p>
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>	



<b>Grade:</b> Fourth		<b>Content:</b> Mathematics	
<b>Domain:</b> Operations and Algebraic Thinking, Number and Operations in Base Ten		<b>Topic:</b> Divide by 1-Digit Numbers	<b>Time Frame:</b> 15-17 days
<b>Standards:</b> 4.OA.A.3 4.NBT.A.1 4.NBT.B.6		<b>Focus Mathematical Practices:</b> MP2: Reason abstractly and quantitatively. MP4: Model with mathematics	<b>PARCC Model Content Framework:</b> Major Content: 4.OA.A, 4.NBT.A, 4.NBT.B Supporting Content: n/a Additional Content: n/a

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>● How can you divide by 1-digit numbers?</li> <li>● How can you use multiples to estimate quotients?</li> <li>● How can you use models to divide whole numbers with remainders?</li> <li>● How can you divide numbers through thousands by whole numbers through ten?</li> <li>● How can you use compatible numbers or the Distributive Property to find/estimate quotients?</li> <li>● How can you use repeated subtraction, multiples, partial products, or base ten blocks to find quotients?</li> <li>● How can you use place value to know where to place the first digit in the quotient?</li> <li>● How can you use the strategy draw a diagram to solve multi-step division problems?</li> </ul>	<ul style="list-style-type: none"> <li>● Solve multi-step word problems posed with whole numbers and having whole number answers using four operations.</li> <li>● Find whole number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.</li> <li>● Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</li> </ul>



Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Use multiples of models to estimate or solve division of whole numbers with remainders.</li> <li>● Divide tens, hundreds, and thousands by whole numbers through 10.</li> <li>● Use compatible numbers or the Distributive Property to estimate or solve division problems.</li> <li>● Use repeated subtraction, multiples, partial quotients, or base ten blocks to divide.</li> <li>● Use place value to determine where to place the first digit of a quotient.</li> <li>● Solve problems by using the strategy draw a diagram.</li> </ul>	<p>Students will know how to:</p> <ul style="list-style-type: none"> <li>● Divide 3-digit by 1-digit numbers to solve word problems involving multiplicative comparisons.</li> <li>● Write an equation to identify the arithmetic operation written in a word problem.</li> <li>● Use strategies to divide multi-digit dividends by one-digit divisors and explain the answer using equations, rectangular arrays, and area models.</li> </ul>

Vocabulary	Resources	Assessment/Project
<p>compatible numbers multiple remainder partial quotient</p>	<ul style="list-style-type: none"> <li>● GOMath Lessons 4.1-4.12</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 4 Test</li> </ul>





Differentiated Instruction		Interdisciplinary Connections
RTI/ELL	Enrichment	
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>	<p><b>Literature Connection:</b> Interactive Word Problems. Students use a digital work space and tools, and apply a variety of reading strategies to help them solve multi-step word problems.</p> <p><b>Science Connection:</b> Moon Weight - students will solve problems using division. They will explore division by finding out how much animals weigh on the moon.</p>



<b>Grade:</b> Fourth		<b>Content:</b> Mathematics	
<b>Domain:</b> Operations and Algebraic Thinking		<b>Topic:</b> Factors, Multiples, and Patterns	<b>Time Frame:</b> 15 days
<b>Standards:</b> 4.OA.B.4 4.OA.C.5		<b>Focus Mathematical Practices:</b> MP6: Attend to precision. MP7: Look for and make use of structure.	<b>PARCC Model Content Framework:</b> Major Content: n/a Supporting Content: 4.OA.B Additional Content: 4.OA.C

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>● How can you find factors and multiples and how can you generate and describe number patterns?</li> <li>● How can you use models and further determine factors of a number?</li> <li>● How can you use the make a list strategy to solve problems with common factors?</li> <li>● How are factors and multiples related?</li> <li>● How can you tell whether a number is prime or composite?</li> <li>● How can you make and describe patterns?</li> </ul>	<ul style="list-style-type: none"> <li>● Find all factor pairs for a whole number in the range 1-100.</li> <li>● Recognize that a whole number is a multiple of each of its factors.</li> <li>● Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number.</li> <li>● Determine whether a given whole number in the range 1-100 is prime or composite.</li> <li>● Generate a number or shape pattern that follows a given rule.</li> </ul>

Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>● Determine factors using models.</li> <li>● Solve problems by using the strategy make a list.</li> <li>● Understand the relationship between factors and multiples and determine whether a number is a multiple of a given number.</li> <li>● Determine whether a number is prime or composite.</li> <li>● Generate a number pattern and describe features of the pattern.</li> </ul>	<p><b>Students will know how to:</b></p> <ul style="list-style-type: none"> <li>● Determine if a number between 1 and 100 is a prime or composite number.</li> <li>● Find all factor pairs for a whole number up to 100 and determine whether it is a multiple of a given 1-digit whole number.</li> <li>● Generate number or shape patterns by using rules including words, models, or graphs, and identify apparent features of the pattern that were not explicit in the rule of the original pattern.</li> </ul>



Vocabulary	Resources	Assessment/Project
common factor common multiple composite number prime number divisible factor pattern term	<ul style="list-style-type: none"> <li>● GOMath Lessons 5.1-5.6</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 5 Test</li> </ul>
Differentiated Instruction		Interdisciplinary Connections
RTI/ELL	Enrichment	<p><b>Literature/Social Studies Connection:</b>  <u>Eratosthenes and his Sieve</u>. Students read about Eratosthenes and his contribution to math, including his Sieve for identifying prime numbers.</p>
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>	



<b>Grade:</b> Fourth		<b>Content:</b> Mathematics	
<b>Domain:</b> Numbers and Operations - Fractions		<b>Topic:</b> Fraction Equivalence and Comparison	<b>Time Frame:</b> 15-17 days
<b>Standards:</b> 4.NF.A.1 4.NF.A.2		<b>Focus Mathematical Practices:</b> MP4: Model with mathematics. MP7: Look for and make use of structure.	<b>PARCC Model Content Framework:</b> Major Content: 4.NF.A Supporting Content: n/a Additional Content: n/a

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>• What strategies can you use to compare fractions and write equivalent fractions?</li> <li>• How can you use models and multiplication to find equivalent fractions?</li> <li>• How can you write a fraction as an equivalent fraction in simplest form?</li> <li>• How can you write a pair of fractions as fraction with a common denominator?</li> <li>• How can you use the strategy make a table to solve problems using equivalent fractions?</li> <li>• How can you use benchmarks to compare and order fractions?</li> </ul>	<ul style="list-style-type: none"> <li>• Explain why a fraction <math>a/b</math> is equivalent to a fraction <math>(n \times a)/(n \times b)</math> by using visual fraction models.</li> <li>• Use this principle to recognize and generate equivalent fractions.</li> <li>• Compare two fractions with different numerators and different denominators</li> <li>• Recognize that comparisons are valid only when the two fractions refer to the same whole</li> <li>• Record the results of comparisons with symbols <math>&gt;</math>, <math>+</math>, or <math>&lt;</math>, and justify the conclusions.</li> </ul>

Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Use models and multiplication to generate equivalent fractions.</li> <li>• Write and identify equivalent fractions in simplest form.</li> <li>• Use equivalent fractions to represent a pair of fractions with a common denominator.</li> <li>• Use the strategy make a table to solve problems using equivalent fractions.</li> <li>• Compare and order fractions using benchmarks, common numerators, or common denominators.</li> </ul>	<p><b>Students will know how to:</b></p> <ul style="list-style-type: none"> <li>• Recognize and generate equivalent fractions and explain why they are equivalent using visual fraction models.</li> <li>• Compare two fractions with different numerators and different denominators using <math>&gt;</math>, <math>&lt;</math>, and <math>=</math> and justify the comparison by using visual fraction models.</li> </ul>



Vocabulary	Resources	Assessment/Project
benchmark common denominator equivalent fractions fraction simplest form	<ul style="list-style-type: none"> <li>● GOMath Lessons 6.1-6.8</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 6 Test</li> </ul>
Differentiated Instruction		Interdisciplinary Connections
RTI/ELL	Enrichment	<p><b>Literature Connection:</b> <u>Fundraising Fair</u>. Students read about surveying a population and reporting the information using fractions.</p> <p><b>Social Studies Connection:</b> Students will identify chores they do, budget the money, and use fractions to budget where they want money to be used. (for spending or saving purposes)</p>
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>	



<b>Grade:</b> Fourth		<b>Content:</b> Mathematics	
<b>Domain:</b> Number and Operations - Fractions		<b>Topic:</b> Add and Subtract Fractions	
<b>Standards:</b> 4.NF.B.3a 4.NF.B.3b 4.NF.B.3c 4.NF.B.3d		<b>Time Frame:</b> 17-19 days	
		<b>PARCC Model Content Framework:</b> Major Content: 4.NF.B Supporting Content: n/a Additional Content: n/a	
		<b>Focus Mathematical Practices:</b> MP2: Reason abstractly and quantitatively. MP4: Model with mathematics MP5: Use appropriate tools strategically	

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>● How do you add or subtract fractions that have the same denominator?</li> <li>● When can you add or subtract parts of a whole?</li> <li>● How can you write a fraction as a sum of fractions with the same denominator?</li> <li>● How can you add and subtract fractions with like denominators using models?</li> <li>● How can you rename mixed numbers as fractions greater than 1 and rename fractions greater than 1 as mixed numbers?</li> <li>● How can you add and subtract mixed numbers with like denominators?</li> <li>● How can you rename a mixed number to help you subtract?</li> <li>● How can you add fractions with like denominators using the Properties of Addition?</li> <li>● How can you use the strategy act it out to solve multi-step problems with fractions?</li> </ul>	<ul style="list-style-type: none"> <li>● Understand a fraction <math>a/b</math> with <math>a &gt; 1</math> as a sum of fractions <math>1/b</math>.</li> <li>● Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.</li> <li>● Decompose a fraction into a sum of fractions with the same denominator in more than one way.</li> <li>● Add and subtract mixed numbers with like denominators by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.</li> <li>● Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators.</li> </ul>



Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Understand that to add or subtract fractions they must refer to parts of the same whole.</li> <li>● Decompose a fraction by writing it as a sum of fractions with the same denominators.</li> <li>● Use models to find sums and differences involving fractions.</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>● Rename mixed numbers to subtract.</li> <li>● Use the Properties of Addition to add fractions.</li> <li>● Use the strategy act it out to solve multi-step fraction problems.</li> </ul>	<p>Students will know how to:</p> <ul style="list-style-type: none"> <li>● Decompose a fraction into a sum of fractions with the same denominator in more than one way; record the decomposition as an equation and justify with a visual fraction model.</li> <li>● Add and subtract mixed numbers with like denominators by replacing each mixed number with an equivalent fraction.</li> <li>● Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators.</li> <li>● Add two fractions with respective denominators of 10 and 100 by writing each fraction a fraction with denominator 100.</li> </ul>

Vocabulary	Resources	Assessment/Project
<p>mixed number unit fraction</p>	<ul style="list-style-type: none"> <li>● GOMath Lessons 7.1-7.10</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 7 Test</li> </ul>



Differentiated Instruction		Interdisciplinary Connections
RTI/ELL	Enrichment	
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>	<p><b>Literature Connection:</b> <u>Voki</u>. Students design Avatar and create a paragraph explaining what they learned and provide an example. Explanation must be clear, concise, and using the correct language.</p> <p><b>Social Studies Connection:</b> “The Perfect Pizza Pie” – students use fractions to represent pizza toppings and compare their fractions to classmate preferences.</p>





<b>Grade:</b> Fourth		<b>Content:</b> Mathematics
<b>Domain:</b> Number and Operations - Fractions	<b>Topic:</b> Multiply Fractions by Whole Numbers	<b>Time Frame:</b> 10-12 days
<b>Standards:</b> 4.NF.B.4a 4.NF.B.4b 4.NF.B.4c	<b>Focus Mathematical Practices:</b> MP2: Reason abstractly and quantitatively. MP7: Look for and make use of structure.	<b>PARCC Model Content Framework:</b> Major Content: 4.NF.B Supporting Content: n/a Additional Content: n/a

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>● How do you multiply fractions by whole numbers?</li> <li>● How can you write a fraction as a product of a whole number and a unit fraction?</li> <li>● How can you use a model to multiply a fraction by a whole number?</li> <li>● How can you use the strategy draw a diagram to solve comparison problems with fractions?</li> </ul>	<ul style="list-style-type: none"> <li>● Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.</li> <li>● Understand a fraction <math>a/b</math> as a multiple of <math>1/b</math>.</li> <li>● Understand a multiple of <math>a/b</math> as a multiple of <math>1/b</math>, and use this understanding to multiply a factor by a whole number.</li> <li>● Solve word problems involving multiplication of a fraction by a whole number.</li> </ul>

Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Write a fraction as a product of a whole number and a unit fraction.</li> <li>● Use a model to multiply a fraction by a whole number.</li> <li>● Use the strategy draw a diagram to solve comparison problems with fractions.</li> </ul>	<p>Students will know how to:</p> <ul style="list-style-type: none"> <li>● Multiply a fraction by a whole number using visual fraction models and equations, demonstrating a fraction <math>a/b</math> and a multiple of <math>1/b</math>.</li> <li>● Solve 1-step word problems involving multiplication of a fraction by a whole number.</li> <li>● Solve word problems involving simple fractions or decimals that incorporate measurement comparisons of like units.</li> </ul>



Vocabulary	Resources	Assessment/Project
	<ul style="list-style-type: none"> <li>● GOMath Lessons 8.1-8.5</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 8 Test</li> </ul>
Differentiated Instruction		Interdisciplinary Connections
RTI/ELL	Enrichment	<p><b>Literature/Music Connection:</b> <u>A Melody in Fractions</u>. Students will learn how fractions and equivalent fractions are used to read music.</p> <p><b>Science/Social Studies/Technology Connection:</b> News Broadcaster – using a topic, students will come up with a real world scenario and create a paragraph script using that information.</p>
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>	



<b>Grade:</b> Fourth		<b>Content:</b> Mathematics	
<b>Domain:</b> Number and Operations – Fractions, Measurement and Data		<b>Topic:</b> Relate Fractions and Decimals	<b>Time Frame:</b> 15-18 days
<b>Standards:</b> 4.NF.C.5 4.NF.C.6 4.NF.C.7		<b>Focus Mathematical Practices:</b> MP7: Look for and make use of structure. MP8: Look for and express regularity in repeated reasoning.	<b>PARCC Model Content Framework:</b> Major Content: 4.NF.C Supporting Content: n/a Additional Content: n/a

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>How can you record decimal notation for fractions and compare decimals?</li> <li>How can you record tenths and hundredths as fractions and decimals?</li> <li>How can you relate fractions, decimals, and money?</li> <li>How can you use the strategy act it out to solve problems that use money?</li> <li>How can you add fractions when the denominators are 10 or 100?</li> <li>How can you compare decimals?</li> </ul>	<ul style="list-style-type: none"> <li>Express a fraction with a denominator 10 as an equivalent fraction with denominator 100.</li> <li>Use decimal notation for fractions with denominators 10 or 100.</li> <li>Compare two decimals to hundredths by reasoning about their size.</li> <li>Recognize that comparisons are valid only when the two decimals refer to the same whole.</li> <li>Record the results of comparisons with the symbols <math>&gt;</math>, <math>=</math>, or <math>&lt;</math>, and justify the conclusions.</li> </ul>

Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>Record tenths and hundredths as fractions and decimals.</li> <li>Translate among representations of fractions, decimals, and money.</li> <li>Solve problems by using the strategy act it out.</li> <li>Add fractions when the denominators are 10 or 100.</li> <li>Compare decimals to hundredths by reasoning about their size.</li> </ul>	<p><b>Students will know how to:</b></p> <ul style="list-style-type: none"> <li>Add two fractions with respective denominators of 10 and 100 by writing each fraction as a fraction with denominator 100.</li> <li>Use decimal notation to write fractions with denominators of 10 or 100 by writing each fraction as a fraction with a denominator 100.</li> </ul>



Vocabulary	Resources	Assessment/Project
decimal decimal point equivalent decimals hundredth tenth	<ul style="list-style-type: none"> <li>● GOMath Lessons 9.1-9.7</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 9 Test</li> </ul>
Differentiated Instruction		Interdisciplinary Connections
RTI/ELL	Enrichment	<p><b>Science Connection:</b> Using the formula, <math>S=V/T</math>, given the average speed of racecars, write that in decimal form.</p> <p><b>Social Studies Connection:</b> Restaurant Math – students will view local menus of restaurants, determine how much a meal would cost, plus gratuity for a certain number of people.</p>
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>	



<b>Grade:</b> Fourth		<b>Content:</b> Mathematics	
<b>Domain:</b> Operations and Algebraic Thinking, Geometry		<b>Topic:</b> Two-Dimensional Figures	<b>Time Frame:</b> 11-13 days
<b>Standards:</b> 4.OA.C.5 4.G.A.1 4.G.A.2 4.G.A.3		<b>Focus Mathematical Practices:</b> MP6: Attend to precision. MP7: Look for and make use of structure.	<b>PARCC Model Content Framework:</b> Major Content: n/a Supporting Content: n/a Additional Content: 4.OA.C, 4.G.A

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>● How can you draw and identify lines and angles and how can you classify shapes?</li> <li>● How can you identify and draw points, lines, line segments, rays, and angles?</li> <li>● How can you classify triangles by the size of their angles?</li> <li>● How can you identify and draw parallel lines and perpendicular lines?</li> <li>● How can you sort and classify quadrilaterals?</li> <li>● How can you identify lines of symmetry?</li> <li>● How can you use the strategy act it out to solve pattern problems?</li> </ul>	<ul style="list-style-type: none"> <li>● Generate a number or shape pattern that follows a given rule.</li> <li>● Draw points, lines, line segments, rays, angles, and perpendicular and parallel lines.</li> <li>● Identify these in two-dimensional figures.</li> <li>● Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size.</li> <li>● Recognize right triangles as a category, and identify right triangles.</li> <li>● Identify line-symmetric figures and draw lines of symmetry.</li> </ul>

Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p><b>Students will be able to:</b></p> <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>● Identify and draw lines of symmetry in two-dimensional figures.</li> <li>● Use the strategy, act it out to solve pattern problems.</li> </ul>	<p><b>Students will know how to:</b></p> <ul style="list-style-type: none"> <li>● Draw points, lines, line segments, rays, angles, and perpendicular and parallel lines and identify these in two-dimensional figures.</li> <li>● Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specific size.</li> <li>● Draw lines of symmetry and identify line-symmetric figures.</li> </ul>



Vocabulary		Resources	Assessment/Project
acute angle acute triangle angle line line segment line of symmetry line symmetry obtuse angle obtuse triangle right angle right triangle ray	intersecting lines parallel lines perpendicular lines parallelogram rectangle rhombus right triangle square straight angle trapezoid point	<ul style="list-style-type: none"> <li>● GOMath Lessons 10.1-10.7</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 10 Test</li> </ul>
Differentiated Instruction		Interdisciplinary Connections	
RTI/ELL	Enrichment		
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>		<p><b>Literature Connection:</b> <u>Mirror Image</u>: Students read about images and their lines of symmetry in the real world.</p> <p><b>Social Studies/Art Connection:</b> Students create an origami design and identify lines of symmetry.</p>



<b>Grade:</b> Fourth		<b>Content:</b> Mathematics
<b>Domain:</b> Measurement and Data	<b>Topic:</b> Angles	<b>Time Frame:</b> 10-12 days
<b>Standards:</b> 4.MD.C.5 4.MD.C.6 4.MD.C.7	<b>Focus Mathematical Practices:</b> MP1: Make sense of problems and persevere in solving them. MP5: Use appropriate tools strategically.	<b>PARCC Model Content Framework:</b> Major Content: n/a Supporting Content: n/a Additional Content: 4.MD.C

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>How can you measure angles and solve problems involving angle measures?</li> <li>How can you relate angles and degrees to fractional parts of a circle?</li> <li>How can you use a protractor to measure and draw angles?</li> <li>How can you determine the measure of an angle separated into parts?</li> <li>How can you use the strategy draw a diagram to solve angle measurement problems?</li> </ul>	<ul style="list-style-type: none"> <li>Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement.</li> <li>Measure angles in whole-number degrees using a protractor.</li> <li>Sketch angles of specified measure.</li> <li>Recognize angle measures as additive.</li> <li>Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems.</li> </ul>

Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>Relate angles and degrees to fractional parts of a circle.</li> <li>Use a protractor to measure and angle and draw an angle with a given measure.</li> <li>Determine the measure of an angle separated into parts.</li> <li>Use the strategy draw a diagram to solve angle measurement problems.</li> </ul>	<p><b>Students will know how to:</b></p> <ul style="list-style-type: none"> <li>Determine the measure of an angle in degrees.</li> <li>Use a protractor to measure angles in whole number degrees and sketch angles in specific measures.</li> </ul>



Vocabulary	Resources	Assessment/Project
clockwise circle counterclockwise degree protractor vertex	<ul style="list-style-type: none"> <li>● GOMath Lessons 11.1-11.5</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 11 Test</li> </ul>
Differentiated Instruction		Interdisciplinary Connections
RTI/ELL	Enrichment	<p><b>Literature Connection:</b> <u>Skateboarding Takes Shape</u>: Students read how plane figures and angles are used in skate parks.</p> <p><b>Social Studies Connection:</b> Map Activity: Using different maps, identify angles on the map using a protractor to measure point A    point B; identify streets parallel and perpendicular to each other.</p>
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>	





<b>Grade:</b> Fourth		<b>Content:</b> Mathematics	
<b>Domain:</b> Measurement and Data		<b>Topic:</b> Relative Sizes of Measurement Units	<b>Time Frame:</b> 18-20 days
<b>Standards:</b> 4.MD.A.1 4.MD.A.2 4.MD.B.4		<b>Focus Mathematical Practices:</b> MP2: Reason abstractly and quantitatively. MP4: Model with mathematics.	<b>PARCC Model Content Framework:</b> Major Content: n/a Supporting Content: 4.MD.A, 4.MD.B Additional Content: n/a

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>● How can you use relative sizes of measurements to solve problems and to generate measurement tables that show a relationship?</li> <li>● How can you use benchmarks to understand the relative sizes of measurement units?</li> <li>● How can you use models to compare customary units of length, weight, and liquid volume?</li> <li>● How can you make and interpret line plots with fractional data?</li> <li>● How can you use models to compare metric units of length, mass, and liquid volume?</li> <li>● How can you use models to compare units of time?</li> <li>● How can you use the strategy draw a diagram to solve elapsed time problems?</li> <li>● How can you solve problems involving mixed measures?</li> <li>● How can we use patterns to write number pairs for measurement units?</li> </ul>	<ul style="list-style-type: none"> <li>● Know relative sizes of measurement units within one system.</li> <li>● Record measurement equivalents in a two-column table.</li> <li>● Use the four operations to solve real world problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit.</li> <li>● Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.</li> <li>● Make a line plot to display a data set of measurements in fractions on a unit.</li> <li>● Solve problems involving addition and subtraction of fractions by using information presented in line plots.</li> </ul>



Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>● Use benchmarks to understand the relative sizes 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>● Use the strategy draw a diagram to solve elapsed time problems.</li> <li>● Solve problems involving mixed measures.</li> <li>● Use patterns to write number pairs for measurement units.</li> </ul>	<p><b>Students will know how to:</b></p> <ul style="list-style-type: none"> <li>● Express measurement comparisons within a single system of measurement and record in a two-column chart within a single system of measurement.</li> <li>● Make a line plot to display a data set in measurements in fractions of a unit and use it to solve problems involving addition and subtraction of fractions with like denominators.</li> <li>● Solve word problems involving simple fraction or decimals that incorporate measurement comparisons of like units.</li> </ul>

Vocabulary	Resources	Assessment/Project
<p>kilometer, decimeter, centimeter, millimeter inch, foot, mile weight yard ounce, pound, ton cup, fluid ounce liquid volume pint, quart, half gallon, gallon line plot meter, milometer gram, kilogram liter second, day, hour, minute, month, week, year AM/PM, elapsed time</p>	<ul style="list-style-type: none"> <li>● GOMath Lessons 12.1-12.11</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 12 Test</li> </ul>



Differentiated Instruction		Interdisciplinary Connections
RTI/ELL	Enrichment	
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>	<p><b>Literature Connection:</b> <u>Measuring the Mississippi</u>: Students read about different measurements that can be observed on a boat trip along the Mississippi.</p> <p><b>Science Connection:</b> Capacity Overload: Students estimate liquid volume of real world containers.</p>



<b>Grade:</b> Fourth		<b>Content:</b> Mathematics
<b>Domain:</b> Measurement and Data	<b>Topic:</b> Algebra: Perimeter and Area	<b>Time Frame:</b> 8-10 days
<b>Standards:</b> 4.MD.A.3	<b>Focus Mathematical Practices:</b> MP1: Make sense of problems and persevere in solving them. MP5: Use appropriate tools strategically. MP7: Look for and make use of structure.	<b>PARCC Model Content Framework:</b> Major Content: n/a Supporting Content: 4.MD.A Additional Content: n/a

Essential Questions	Enduring Understandings
<ul style="list-style-type: none"> <li>● How can you use formulas for perimeter and area to solve problems?</li> <li>● How can you use a formula to find the perimeter of the rectangle?</li> <li>● How can you use a formula to find the area of the rectangle/combined rectangles?</li> <li>● How can you find an unknown measure of a rectangle given its area or perimeter?</li> <li>● How can you use the strategy solve a simpler problem to solve area problems?</li> </ul>	<ul style="list-style-type: none"> <li>● Apply the area and perimeter formulas for rectangles in real world and mathematical problems.</li> </ul>

Skills	NJDOE Model Curriculum (Student Learning Objectives)
<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Use a formula to find the perimeter of a rectangle.</li> <li>● Use a formula to find the area of a rectangle.</li> <li>● Find the area of combined rectangles.</li> <li>● Given perimeter or area, find the unknown measure of a side of a rectangle.</li> <li>● Use the strategy, solve a simpler problem to solve area problems.</li> </ul>	<p>Students will know how to:</p> <ul style="list-style-type: none"> <li>● Apply area and perimeter formulas for rectangles in real world math problems.</li> </ul>



Vocabulary	Resources	Assessment/Project
formula perimeter area base height square unit length width	<ul style="list-style-type: none"> <li>● GOMath Lessons 13.1-13.5</li> <li>● GOMath iTools and eGlossary (Think Central)</li> <li>● GOMath! Animated Math Models</li> <li>● Corresponding Go Math! Grab and Go for Activities/Literature/Games</li> <li>● HMH Mega Math</li> <li>● Corresponding GOMath! Daily Routines</li> <li>● <a href="https://www-k6.thinkcentral.com/ePC/start.do">https://www-k6.thinkcentral.com/ePC/start.do</a></li> <li>● <a href="http://www.corestandards.org/Math">http://www.corestandards.org/Math</a></li> <li>● <a href="http://www.xtramath.org">http://www.xtramath.org</a></li> </ul>	<ul style="list-style-type: none"> <li>● Ongoing teacher observations (ie exit cards, think, pair share, or numbered heads together)</li> <li>● Workbook pages</li> <li>● Center Work and activities</li> <li>● Mixed Practice and Cumulative Review</li> <li>● Math Journals</li> <li>● Do Now's</li> <li>● Topic/Unit 13 Test</li> </ul>
Differentiated Instruction		Interdisciplinary Connections
RTI/ELL	Enrichment	<p><b>Literature Connection:</b> Create a Rap: Using correct spelling and grammar, students will describe how to calculate area and perimeter.</p> <p><b>Science Connection:</b> Garden Activity: Students create a garden, indication dimensions (length and width) and calculate the perimeter and area.</p>
<ul style="list-style-type: none"> <li>● Number line</li> <li>● Grab and GO Kits</li> <li>● Anchor charts, word wall</li> <li>● Manipulatives</li> <li>● Multiple Response</li> <li>● Reteach Book</li> </ul>	<ul style="list-style-type: none"> <li>● Math Journals, DO NOWs</li> <li>● White boards</li> <li>● Chromebook</li> <li>● Accountable Talk, Critical Thinking</li> <li>● Enrichment Book</li> </ul>	