

Mathematical Practices	Vocabulary	
<div> <div><input type="checkbox"/></div> <div>Make sense of problems and persevere in solving them.</div> </div> <div> <div><input type="checkbox"/></div> <div>Reason abstractly and quantitatively.</div> </div> <div> <div><input type="checkbox"/></div> <div>Construct viable arguments and critique the reasoning of others.</div> </div> <div> <div><input type="checkbox"/></div> <div>Model with mathematics.</div> </div> <div> <div><input type="checkbox"/></div> <div>Use appropriate tools strategically.</div> </div> <div> <div><input type="checkbox"/></div> <div>Attend to precision.</div> </div> <div> <div><input type="checkbox"/></div> <div>Look for and make use of structure.</div> </div> <div> <div><input type="checkbox"/></div> <div>Look for and express regularity in repeated reasoning.</div> </div>	<div> <div>NBT</div> <div>Base</div> <div>Distributive Property</div> <div>Evaluate</div> <div>Exponent</div> <div>Inverse operations</div> <div>Place value</div> <div>Period</div> <div>OA</div> <div>Compatible numbers</div> <div>Estimate</div> <div>Multiply</div> <div>Numerical expression</div> <div>Order of operations</div> <div>Partial Quotients</div> <div>Remainder</div> </div> <div> <div>NF</div> <div>Dividend</div> <div>Divisor</div> <div>Factor</div> <div>Product</div> <div>Quotient</div> </div>	
Prerequisites		
<div>Last year, teachers spent a large majority of the instructional time on these focus skills.</div> <div>This year, students should have a strong foundation in the following areas:</div>		
Major Focus	Supporting Work	Additional Work (Minor)
<div>Use the four operations with whole numbers to solve problems.</div> <div>Generalize place value understanding for multi-digit whole numbers.</div> <div>Use place value understanding and properties of operations to perform multi-digit arithmetic.</div> <div>Extend understanding of fraction equivalence and ordering.</div> <div>Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</div> <div>Understand decimal notation for fractions, and compare decimal fractions.</div>	<div>Gain familiarity with factors and multiples.</div> <div>Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.</div> <div>Represent and interpret data.</div>	<div>Generate and analyze patterns.</div> <div>Geometric measurement: understand concepts of angle and measure angles.</div> <div>Draw and identify lines and angles, and classify shapes by properties of their lines and angles.</div>



Fifth Grade • First Quarter

Pacing Guide

Go Math! Chapters 1-2



# Mathematics

## Introduction to Your Mathematics Pacing Guide

This Mathematics Pacing Guide has been aligned to the Go Math! Series for this grade level. Please teach the units and concepts with fidelity in the order that they have been laid out.

We will review the pacing guide at the end of the year and adjust accordingly.

The following tips may be helpful as you use the Pacing Guide:

- Introduce 9-week content skills according to the Pacing Guide.
- Incorporate the enclosed research-based instructional practices.
- Once a skill is mastered, continue to practice it.
- Continue to reinforce skills and concepts throughout the year until mastery is achieved.
- Become familiar with sequencing at previous and subsequent grade levels.
- The website, [www.corestandards.org](http://www.corestandards.org), can be used to find more information and to better understand Common Core State Standards.
- An electronic version of the Pacing Guides can be found on the Lansing School District homepage [www.lansingschools.net](http://www.lansingschools.net) under Links.



Yvonne Caamal Canul  
Superintendent

Mark Coscarella, Ed.D.  
Deputy Superintendent

Camela Diaz  
Interim Assistant Director  
for Student Learning

Delsa Chapman  
Executive Director for  
Student Learning

Many thanks to...  
the teachers and administrators  
who helped develop and revise  
the pacing guides.

The Mathematics Pacing Guide is based on the Common Core State Standards, and the I CAN statements are tailored to the needs of the students in the Lansing School District. For easy access to the actual state standards as well as supporting information and resources visit the official Common Core website at: [www.corestandards.org](http://www.corestandards.org).

Grade 5 Mathematics First Quarter				
Operations & Algebraic Thinking	Number & Operations in Base Ten	Number & Operations - Fractions	Measurement & Data	Geometry
<p><b>5.OA.1</b></p> <p><input type="checkbox"/> <b>I CAN</b> use the order of operations with whole numbers.</p> <p><b>5.OA.2</b></p> <p><input type="checkbox"/> <b>I CAN</b> read, write, and interpret expressions.</p>	<p><b>5.NBT.1</b></p> <p><input type="checkbox"/> <b>I CAN</b> understand that each place value is 10 times larger to the place on its right and the inverse also applies.</p> <p><b>5.NBT.2</b></p> <p><input type="checkbox"/> <b>I CAN</b> write any number in expanded notation or by using powers of 10.</p> <p><b>5.NBT.5</b></p> <p><input type="checkbox"/> <b>I CAN</b> fluently multiply multi-digit whole numbers.</p> <p><b>5.NBT.6</b></p> <p><input type="checkbox"/> <b>I CAN</b> divide with a two-digit divisor using various strategies.</p>	<p><b>5.NF.5</b></p> <p><input type="checkbox"/> <b>I CAN</b> understand multiplication by comparing the sizes of the factors in related multiplication problems.</p>	<p><i><b>This is not a focus area during this quarter.</b></i></p> <p><i>Continue to reinforce skills and concepts previously introduced, as necessary.</i></p>	<p><i><b>This is not a focus area during this quarter.</b></i></p> <p><i>Continue to reinforce skills and concepts previously introduced, as necessary.</i></p>

Mathematical Practices	Vocabulary
<div><input type="checkbox"/> Make sense of problems and persevere in solving them.</div> <div><input type="checkbox"/> Reason abstractly and quantitatively.</div> <div><input type="checkbox"/> Construct viable arguments and critique the reasoning of others.</div> <div><input type="checkbox"/> Model with mathematics.</div> <div><input type="checkbox"/> Use appropriate tools strategically.</div> <div><input type="checkbox"/> Attend to precision.</div> <div><input type="checkbox"/> Look for and make use of structure.</div> <div><input type="checkbox"/> Look for and express regularity in repeated reasoning.</div>	<div><div>Benchmark</div><div>Compatible numbers</div><div>Decimal</div><div>Decimal point</div><div>Dividend</div><div>Divisor</div><div>Equivalent fractions</div><div>Estimate</div><div>Expanded Form</div><div>Exponent</div><div>Hundredths</div><div>Multiplication</div></div> <div><div>Ones</div><div>Pattern</div><div>Product</div><div>Place value</div><div>Quotient</div><div>Remainder</div><div>Round</div><div>Sequence</div><div>Tenths</div><div>Term</div><div>Thousandths</div></div>

**Prerequisites**

Last year, teachers spent a large majority of the instructional time on these focus skills.  
This year, students should have a strong foundation in the following areas:

Major Focus	Supporting Work	Additional Work (Minor)
<div>Use the four operations with whole numbers to solve problems.</div> <div>Generalize place value understanding for multi-digit whole numbers.</div> <div>Use place value understanding and properties of operations to perform multi-digit arithmetic.</div> <div>Extend understanding of fraction equivalence and ordering.</div> <div>Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</div> <div>Understand decimal notation for fractions, and compare decimal fractions.</div>	<div>Gain familiarity with factors and multiples.</div> <div>Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.</div> <div>Represent and interpret data.</div>	<div>Generate and analyze patterns.</div> <div>Geometric measurement: understand concepts of angle and measure angles.</div> <div>Draw and identify lines and angles, and classify shapes by properties of their lines and angles.</div>



Fifth Grade • Second Quarter

Pacing Guide

Go Math! Chapters 3-5



Mathematics

Introduction to Your Mathematics Pacing Guide



**Yvonne Caamal Canul**  
*Superintendent*

**Mark Coscarella, Ed.D.**  
*Deputy Superintendent*

**Camela Diaz**  
*Interim Assistant Director for Student Learning*

**Delsa Chapman**  
*Executive Director for Student Learning*

**Many thanks to...**  
the teachers and administrators who helped develop and revise the pacing guides.

The Mathematics Pacing Guide is based on the Common Core State Standards, and the I CAN statements are tailored to the needs of the students in the Lansing School District. For easy access to the actual state standards as well as supporting information and resources visit the official Common Core website at: [www.corestandards.org](http://www.corestandards.org).

This Mathematics Pacing Guide has been aligned to the Go Math! Series for this grade level. Please teach the units and concepts with fidelity in the order that they have been laid out.

We will review the pacing guide at the end of the year and adjust accordingly.

The following tips may be helpful as you use the Pacing Guide:

- Introduce 9-week content skills according to the Pacing Guide.
- Incorporate the enclosed research-based instructional practices.
- Once a skill is mastered, continue to practice it.
- Continue to reinforce skills and concepts throughout the year until mastery is achieved.
- Become familiar with sequencing at previous and subsequent grade levels.
- The website, [www.corestandards.org](http://www.corestandards.org), can be used to find more information and to better understand Common Core State Standards.
- An electronic version of the Pacing Guides can be found on the Lansing School District homepage [www.lansingschools.net](http://www.lansingschools.net) under Links.

Grade 5					Mathematics					Second Quarter				
Operations & Algebraic Thinking		Number & Operations in Base Ten		Number & Operations - Fractions		Measurement & Data		Geometry						
<p><i>This is not a focus area during this quarter.</i></p> <p>Continue to reinforce skills and concepts previously introduced, as necessary.</p>		<p><b>5.NBT.2</b></p> <p><input type="checkbox"/> <b>I CAN</b> write any decimal in expanded notation.</p> <p><b>5.NBT.4</b></p> <p><input type="checkbox"/> <b>I CAN</b> round decimals to any place.</p> <p><b>5.NBT.7</b></p> <p><input type="checkbox"/> <b>I CAN</b> add decimals to the hundredths using various strategies.</p> <p><input type="checkbox"/> <b>I CAN</b> subtract decimals to the hundredths using various strategies.</p> <p><input type="checkbox"/> <b>I CAN</b> multiply decimals to the hundredths using various strategies.</p> <p><input type="checkbox"/> <b>I CAN</b> divide decimals to the hundredths using various strategies.</p>		<p><i>This is not a focus area during this quarter.</i></p> <p>Continue to reinforce skills and concepts previously introduced, as necessary.</p>		<p><i>This is not a focus area during this quarter.</i></p> <p>Continue to reinforce skills and concepts previously introduced, as necessary.</p>		<p><i>This is not a focus area during this quarter.</i></p> <p>Continue to reinforce skills and concepts previously introduced, as necessary.</p>						



Mathematical Practices		Vocabulary	
<div><div><input type="checkbox"/> Make sense of problems and persevere in solving them.</div><div><input type="checkbox"/> Reason abstractly and quantitatively.</div><div><input type="checkbox"/> Construct viable arguments and critique the reasoning of others.</div><div><input type="checkbox"/> Model with mathematics.</div><div><input type="checkbox"/> Use appropriate tools strategically.</div><div><input type="checkbox"/> Attend to precision.</div><div><input type="checkbox"/> Look for and make use of structure.</div><div><input type="checkbox"/> Look for and express regularity in repeated reasoning.</div></div>		<div><div>Benchmark</div><div>Common denominator</div><div>Common multiple</div><div>Denominators</div><div>Difference</div><div>Dividend</div><div>Divisor</div><div>Equation</div></div>	<div><div>Equivalent fraction</div><div>Fraction</div><div>Mixed numbers</div><div>Numerator</div><div>Product</div><div>Quotient</div><div>Simplest form</div><div>Sum</div></div>
Prerequisites			
<div>Last year, teachers spent a large majority of the instructional time on these focus skills. This year, students should have a strong foundation in the following areas:</div>			
Major Focus	Supporting Work	Additional Work (Minor)	
<div>Use the four operations with whole numbers to solve problems.</div> <div>Generalize place value understanding for multi-digit whole numbers.</div> <div>Use place value understanding and properties of operations to perform multi-digit arithmetic.</div> <div>Extend understanding of fraction equivalence and ordering.</div> <div>Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</div> <div>Understand decimal notation for fractions, and compare decimal fractions.</div>	<div>Gain familiarity with factors and multiples.</div> <div>Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.</div> <div>Represent and interpret data.</div>	<div>Generate and analyze patterns.</div> <div>Geometric measurement: understand concepts of angle and measure angles.</div> <div>Draw and identify lines and angles, and classify shapes by properties of their lines and angles.</div>	



Fifth Grade • Third Quarter

Pacing Guide

Go Math! Chapters 6-8



Mathematics

Introduction to Your Mathematics Pacing Guide

This Mathematics Pacing Guide has been aligned to the Go Math! Series for this grade level. Please teach the units and concepts with fidelity in the order that they have been laid out.

We will review the pacing guide at the end of the year and adjust accordingly.

The following tips may be helpful as you use the Pacing Guide:

- Introduce 9-week content skills according to the Pacing Guide.
- Incorporate the enclosed research-based instructional practices.
- Once a skill is mastered, continue to practice it.
- Continue to reinforce skills and concepts throughout the year until mastery is achieved.
- Become familiar with sequencing at previous and subsequent grade levels.
- The website, [www.corestandards.org](http://www.corestandards.org), can be used to find more information and to better understand Common Core State Standards.
- An electronic version of the Pacing Guides can be found on the Lansing School District homepage [www.lansingschools.net](http://www.lansingschools.net) under Links.



Yvonne Caamal Canul  
Superintendent

Mark Coscarella, Ed.D.  
Deputy Superintendent

Camela Diaz  
Interim Assistant Director  
for Student Learning

Delsa Chapman  
Executive Director for  
Student Learning

Many thanks to...  
the teachers and administrators  
who helped develop and revise  
the pacing guides.

The Mathematics Pacing Guide is based on the Common Core State Standards, and the I CAN statements are tailored to the needs of the students in the Lansing School District. For easy access to the actual state standards as well as supporting information and resources visit the official Common Core website at: [www.corestandards.org](http://www.corestandards.org).

Grade 5 Mathematics Third Quarter				
Operations & Algebraic Thinking	Number & Operations in Base Ten	Number & Operations - Fractions	Measurement & Data	Geometry
<p><i>This is not a focus area during this quarter.</i></p> <p><i>Continue to reinforce skills and concepts previously introduced, as necessary.</i></p>	<p><i>This is not a focus area during this quarter.</i></p> <p><i>Continue to reinforce skills and concepts previously introduced, as necessary.</i></p>	<p><b>5.NF.1</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> <b>I CAN</b> add and subtract fractions with unlike denominators (including mixed numbers) and simplify my answers.</li><li><input type="checkbox"/> <b>I CAN</b> find and use equivalent fractions.</li><li><input type="checkbox"/> <b>I CAN</b> convert between improper fractions and mixed numbers.</li></ul> <p><b>5.NF.2</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> <b>I CAN</b> solve word problems using addition and subtraction of fractions with like and unlike denominators.</li></ul> <p><b>5.NF.3</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> <b>I CAN</b> explain a fraction as division of the numerator by the denominator.</li><li><input type="checkbox"/> <b>I CAN</b> solve division of whole number word problems where the answer is a fraction or mixed number.</li></ul> <p><b>5.NF.4</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> <b>I CAN</b> multiply a fraction by a whole number using various strategies.</li><li><input type="checkbox"/> <b>I CAN</b> use various strategies to find the area of a rectangle with fraction side lengths and represent the area with a fraction.</li></ul> <p><b>5.NF.5</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> <b>I CAN</b> understand when I multiply a number by a fraction the product will be smaller than the given number.</li><li><input type="checkbox"/> <b>I CAN</b> understand when multiplying a number by a fraction greater than 1 the product will be greater than the given number.</li></ul> <p><b>5.NF.6</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> <b>I CAN</b> solve real world problems by multiplying fractions and mixed numbers.</li></ul> <p><b>5.NF.7</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> <b>I CAN</b> understand and apply dividing a unit fraction by a whole number.</li><li><input type="checkbox"/> <b>I CAN</b> understand and apply dividing a whole number by a unit fraction.</li><li><input type="checkbox"/> <b>I CAN</b> solve real world problems by dividing fractions and whole numbers.</li></ul>	<p><i>This is not a focus area during this quarter.</i></p> <p><i>Continue to reinforce skills and concepts previously introduced, as necessary.</i></p>	<p><i>This is not a focus area during this quarter.</i></p> <p><i>Continue to reinforce skills and concepts previously introduced, as necessary.</i></p>

Mathematical Practices		Vocabulary	
<div><div><input type="checkbox"/> Make sense of problems and persevere in solving them.</div><div><input type="checkbox"/> Reason abstractly and quantitatively.</div><div><input type="checkbox"/> Construct viable arguments and critique the reasoning of others.</div><div><input type="checkbox"/> Model with mathematics.</div><div><input type="checkbox"/> Use appropriate tools strategically.</div><div><input type="checkbox"/> Attend to precision.</div><div><input type="checkbox"/> Look for and make use of structure.</div><div><input type="checkbox"/> Look for and express regularity in repeated reasoning.</div></div>		<div><div>OA</div><div>Ordered Pair</div><div>MD</div><div>Capacity</div><div>Data</div><div>Decimeter</div><div>Dekameter</div><div>Gallon</div><div>Gram</div><div>Interval</div></div> <div><div>Length</div><div>Line graph</div><div>Liter</div><div>Line Plot</div><div>Mass</div><div>Meter</div><div>Mile</div><div>Milligram</div><div>Milliliter</div><div>Millimeter</div></div> <div><div>Origin</div><div>Pound</div><div>X axis</div><div>X coordinate</div><div>Y axis</div><div>Y coordinate</div><div>Scale</div><div>Ton</div><div>Weight</div></div>	
Prerequisites			
<div>Last year, teachers spent a large majority of the instructional time on these focus skills.</div> <div>This year, students should have a strong foundation in the following areas:</div>			
Major Focus	Supporting Work	Additional Work (Minor)	
<div>Use the four operations with whole numbers to solve problems.</div> <div>Generalize place value understanding for multi-digit whole numbers.</div> <div>Use place value understanding and properties of operations to perform multi-digit arithmetic.</div> <div>Extend understanding of fraction equivalence and ordering.</div> <div>Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</div> <div>Understand decimal notation for fractions, and compare decimal fractions.</div>	<div>Gain familiarity with factors and multiples.</div> <div>Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.</div> <div>Represent and interpret data.</div>	<div>Generate and analyze patterns.</div> <div>Geometric measurement: understand concepts of angle and measure angles.</div> <div>Draw and identify lines and angles, and classify shapes by properties of their lines and angles.</div>	



Fifth Grade • Fourth Quarter

Pacing Guide

Go Math! Chapters 9-11



Mathematics

Introduction to Your Mathematics Pacing Guide

This Mathematics Pacing Guide has been aligned to the Go Math! Series for this grade level. Please teach the units and concepts with fidelity in the order that they have been laid out.

We will review the pacing guide at the end of the year and adjust accordingly.

The following tips may be helpful as you use the Pacing Guide:

- Introduce 9-week content skills according to the Pacing Guide.
- Incorporate the enclosed research-based instructional practices.
- Once a skill is mastered, continue to practice it.
- Continue to reinforce skills and concepts throughout the year until mastery is achieved.
- Become familiar with sequencing at previous and subsequent grade levels.
- The website, [www.corestandards.org](http://www.corestandards.org), can be used to find more information and to better understand Common Core State Standards.
- An electronic version of the Pacing Guides can be found on the Lansing School District homepage [www.lansingschools.net](http://www.lansingschools.net) under Links.



Yvonne Caamal Canul  
Superintendent

Mark Coscarella, Ed.D.  
Associate Superintendent,

Camela Diaz  
Interim Assistant Director  
for Student Learning

Delsa Chapman  
Executive Director for  
Student Learning

Many thanks to...  
the teachers and administrators  
who helped develop and revise  
the pacing guides.

The Mathematics Pacing Guide is based on the Common Core State Standards, and the I CAN statements are tailored to the needs of the students in the Lansing School District. For easy access to the actual state standards as well as supporting information and resources visit the official Common Core website at: [www.corestandards.org](http://www.corestandards.org).



Grade 5					Mathematics					Fourth Quarter				
Operations & Algebraic Thinking		Number & Operations in Base Ten		Number & Operations - Fractions		Measurement & Data			Geometry					
<p><b>5.OA.3</b></p> <p><input type="checkbox"/> <b>I CAN</b> use given rules to generate numerical patterns, for ordered pairs, and graph the ordered pairs on a coordinate plane.</p>		<p><i><b>This is not a focus area during this quarter.</b></i></p> <p><i>Continue to reinforce skills and concepts previously introduced, as necessary.</i></p>		<p><i><b>This is not a focus area during this quarter.</b></i></p> <p><i>Continue to reinforce skills and concepts previously introduced, as necessary.</i></p>		<p><b>5.MD.1</b></p> <p><input type="checkbox"/> <b>I CAN</b> convert measurement units within a measurement system.</p> <p><b>5.MD.2</b></p> <p><input type="checkbox"/> <b>I CAN</b> make and use a line plot with fractions.</p> <p><b>5.MD.3</b></p> <p><input type="checkbox"/> <b>I CAN</b> recognize one cubic unit of volume.</p> <p><input type="checkbox"/> <b>I CAN</b> understand that volume is measured using cubic units to completely fill a solid figure.</p> <p><b>5.MD.4</b></p> <p><input type="checkbox"/> <b>I CAN</b> measure volume by filling an object with unit cubes of various sizes and counting them.</p> <p><input type="checkbox"/> <b>I CAN</b> measure volume by filling an object with unit cubes, counting them, and relating to volume formula.</p> <p><b>5.MD.5</b></p> <p><input type="checkbox"/> <b>I CAN</b> use formulas to find the volume of an object.</p> <p><input type="checkbox"/> <b>I CAN</b> find the volume of complex solid figures by finding the volumes of a box within the figure and adding the volumes together.</p>			<p><b>5.G.1</b></p> <p><input type="checkbox"/> <b>I CAN</b> find a point using positive ordered pairs.</p> <p><b>5.G.2</b></p> <p><input type="checkbox"/> <b>I CAN</b> solve real world problems by graphing positive ordered pairs.</p> <p><b>5.G.3</b></p> <p><input type="checkbox"/> <b>I CAN</b> identify and categorize similarities between 2-dimensional objects.</p> <p><b>5.G.4</b></p> <p><input type="checkbox"/> <b>I CAN</b> name 2-dimensional figures based on properties.</p>					