

Winslow Schools
Mathematics Curriculum – Grade 3
Unit 2

Overview	Standards for Mathematical Content	Unit Focus	Standards for Mathematical Practice
<p>Unit 2</p> <p>Modeling Multiplication, Division and Fractions</p>	<ul style="list-style-type: none"> ● 3.OA.A.3* ● 3.OA.B.5 ● 3.MD.C.7c ● 3.MD.C.7d* ● 3.OA.C.7* ● 3.OA.D.8* ● 3.OA.D.9 ● 3.NBT.A.2* ● 3.NF.A.1 ● 3.G.A.2 	<ul style="list-style-type: none"> ● Represent and solve problems involving multiplication and division ● Understand properties of multiplication and the relationship between multiplication and division ● Geometric measurement: understand concepts of area and relate area to multiplication and to addition ● Multiply and divide within 100 ● Solve problems involving the four operations, and identify and explain patterns in arithmetic ● Use place value understanding and properties of operations to perform multi-digit arithmetic ● Develop understanding of fractions as numbers. <p>Reason with shapes and their attributes</p>	<p>MP.1 Make sense of problems and persevere in solving them.</p> <p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.4 Model with mathematics.</p> <p>MP.5 Use appropriate tools strategically.</p> <p>MP.6 Attend to precision.</p>
<p><i>Unit 2: Suggested Open Educational Resources</i></p>	<p>3.OA.A.3 Two Interpretations of Division</p> <p>3.OA.B.5 Valid Equalities? (Part 2)</p> <p>3.MD.C.7c Introducing the Distributive Property</p> <p>3.OA.C.7 Kiri's Multiplication Matching Game</p> <p>3.OA.D.8 The Class Trip</p> <p>3.OA.D.9 Addition Patterns</p> <p>3.NF.A.1 Naming the Whole for a Fraction</p> <p>3.G.A.2 Representing Half of a Circle</p>	<p>MP.7 Look for and make use of structure.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>	

Major Supporting Additional (Identified by PARCC Model Content Frameworks).

Curriculum Unit 2	Standards		Pacing	
			Days	Unit Days
Unit 2 Modeling Multiplication, Division and Fractions	• 3.OA.A.3*	Use multiplication and division within 100 to solve word problems involving measurement quantities (area) using drawings.	6	45
	• 3.OA.B.5	Multiply one-digit whole numbers by applying the properties of operations (commutative, associative, and distributive properties).	3	
	• 3.MD.C.7c	Use tiling and an area model to represent the distributive property.	2	
	• 3.MD.C.7d*	Solve real-world problems involving finding areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts.	2	
	• 3.OA.C.7*	Fluently multiply and divide <u>within 40</u> using strategies such as the relationship between multiplication and division.	2	
	• 3.OA.D.8*	Write equations when solving two-step word problems, using a symbol for an unknown; find the value of an unknown in an equation involving any of the four operations and use estimation strategies to assess the reasonableness of answers.	6	
	• 3.OA.D.9	Recognize arithmetic patterns, including patterns in addition or multiplication tables, and explain the patterns using properties of operations.	5	
	• 3.NBT.A.2*	Fluently add and subtract (with regrouping) two 2-digit whole numbers <u>within 100</u> .	3	
	• 3.NF.A.1	Fraction $1/b$ is the quantity formed by 1 part when a whole is partitioned into b equal parts. Fraction a/b as the quantity formed by a parts of size $1/b$ (e.g. $10/2$ is 10 parts and each part is of size $1/2$).	10	
	• 3.G.A.2	Partition shapes into parts with equal areas and express the area of each part as a unit fraction; interpret the unit fraction $1/b$ as the quantity formed by 1 of b equal parts of a whole and the fraction a/b as the quantity formed by a parts of size $1/b$	2	
Assessment, Re-teach and Extension			4	

Unit 2 Grade 3

Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
<ul style="list-style-type: none"> 3.OA.A.3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. *(benchmarked) 	MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics.	Concept(s): No new concept(s) introduced Students are able to: <ul style="list-style-type: none"> multiply to solve word problems involving arrays and measurement quantities (area). divide to solve word problems involving arrays and measurement quantities (area). represent a word problem with a drawing or array. represent a word problem with an equation. Learning Goal 1: Use multiplication and division within 100 to solve word problems involving measurement quantities (area) using drawings.
<ul style="list-style-type: none"> 3.OA.B.5. Apply properties of operations as strategies to multiply and divide. <i>Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)</i> <p>*[Students need not use the formal terms for these properties.]</p> <p>*[Limit to single digit factors and multipliers. $7 \times 4 \times 5$ would exceed grade 3 expectations because it would result in a two-digit multiplier (28×5)]</p>	MP.3 Construct viable arguments and critique the reasoning of others. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): <ul style="list-style-type: none"> Properties are rules about relationships between numbers. Changing the order of factors does not change the result of multiplication. Changing the order of numbers does change the result of division. Area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Area models can be used to represent the distributive property. Students are able to: <ul style="list-style-type: none"> multiply whole numbers using the commutative property as a strategy. multiply whole numbers using the associative property as a strategy. use tiling to show that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. multiply whole numbers using the distributive property as a strategy. Learning Goal 2: Multiply one-digit whole numbers by applying the properties of operations (commutative, associative, and distributive properties). Learning Goal 3: Use tiling and an area model to represent the distributive property.

<ul style="list-style-type: none"> 3.MD.C.7. Relate area to the operations of multiplication and addition. <p>3.MD.C.7c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.</p>		
<ul style="list-style-type: none"> 3.MD.C.7. Relate area to the operations of multiplication and addition. <p>3.MD.C.7d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.</p>	<p>MP.3 Construct viable arguments and critique the reasoning of others. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Areas of rectilinear figures can be determined by decomposing them into non-overlapping rectangles and adding the areas of the parts. <p>Students are able to:</p> <ul style="list-style-type: none"> decompose rectilinear figures into non-overlapping rectangles. find areas of non-overlapping rectangles and add to find the area of the rectilinear figure. solve real world problems involving area of rectilinear figures. <p>Learning Goal 4: Solve real-world problems involving finding areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts.</p>
<p>3.OA.C.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. *(benchmarked)</p>	<p>MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Concept(s): No new concept(s) introduced</p> <p>Students are able to:</p> <ul style="list-style-type: none"> multiply and divide <u>within 40</u> with accuracy and efficiency. <p>Learning Goal 5: Fluently multiply and divide <u>within 40</u> using strategies such as the relationship between multiplication and division.</p>
<ul style="list-style-type: none"> 3.OA.D.8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. *(benchmarked) 	<p>MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4. Model with mathematics MP.5 Use appropriate tools strategically. MP.6 Attend to precision.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Letters or symbols in an equation represent an unknown quantity. <p>Students are able to:</p> <ul style="list-style-type: none"> represent the solution to two-step word problems with equations. use a symbol to represent an unknown in an equation. use rounding as an estimation strategy. explain, using an estimation strategy, whether an answer is reasonable.

		Learning Goal 6: Write equations when solving two-step word problems, using a symbol for an unknown; find the value of an unknown in an equation involving any of the four operations and use estimation strategies to assess the reasonableness of answers.
<ul style="list-style-type: none"> 3.OA.D.9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. <i>For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.</i> 	MP.3 Construct viable arguments and critique the reasoning of others. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): <ul style="list-style-type: none"> Addition and multiplication tables reveal arithmetic patterns. Patterns may be related to whether a number is even or odd. Patterns exist in rows, columns and diagonals of addition tables and multiplication tables. Decomposing numbers into equal addends may reveal patterns. Students are able to: <ul style="list-style-type: none"> explain arithmetic patterns using properties of operations. Learning Goal 7: Recognize arithmetic patterns, including patterns in addition or multiplication tables, and explain the patterns using properties of operations.
<ul style="list-style-type: none"> 3.NBT.A.2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. *(benchmarked) 	MP 2 Reason abstractly and quantitatively.	Concept(s): No new concept(s) introduced Students are able to: <ul style="list-style-type: none"> add and subtract two 2-digit whole numbers <u>within 100</u> with accuracy and efficiency. Learning Goal 8: Fluently add and subtract (with regrouping) two 2-digit whole numbers <u>within 100</u> .
<ul style="list-style-type: none"> 3.NF.A.1. Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$. <p>Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.]</p> <ul style="list-style-type: none"> 3.G.A.2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. <i>For example, partition a shape into 4 parts having equal area</i> 	MP 2 Reason abstractly and quantitatively. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): <ul style="list-style-type: none"> Wholes, when partitioned into equal parts, contain parts representing a unit fraction and each part is the same size. Each part has the same name and represents a unit fraction (one-half, one-third, one-fourth, one-sixth, one-eighth). The denominator is the total number of parts in the whole. The numerator is the number of parts in a given fraction. Fraction $1/b$ is the quantity formed by 1 part when a whole is partitioned into b equal parts. Fraction a/b as the quantity formed by a parts of size $1/b$ (e.g. $10/2$ is 10 parts and each part is of size $1/2$). Students are able to: <ul style="list-style-type: none"> partition rectangles, and other shapes, into halves, thirds, fourths, sixths and eighths. identify the fractional name of each part.

<p><i>and describe the area of each part as $1/4$ of the area of the shape.</i></p>		<ul style="list-style-type: none">● model and explain that a fraction a/b is the quantity formed by a parts of size $1/b$ (For example, $10/2$ is 10 parts and each part is of size $1/2$). <p>Learning Goal 9: Partition shapes into parts with equal areas and express the area of each part as a unit fraction; interpret the unit fraction $1/b$ as the quantity formed by 1 of b equal parts of a whole and the fraction a/b as the quantity formed by a parts of size $1/b$.</p>
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Unit 2 Grade 3

School/District Formative Assessment Plan

Pre-Assessment, Quizzes
 Do Nows
 Exit Tickets
 Daily Monitoring
 Lesson Check Assessments:

- Teacher constructed responses
- Provided by Textbook or online resource

School/District Summative Assessment Plan

Go Math! Unit Benchmarks
 Link It
 Mid-Chapter Checkpoints
 Chapter Tests:

- Online Assessments
- Textbook Review/Test

Focus Mathematical Concepts

Prerequisite skills:

Achieve the Core Coherence Map

<https://achievethecore.org/coherence-map/>

Standard:

- 3.OA.A.1:** 2.OA.4, 2.NBT.2, 2.G.2
- 3.OA.A.2:** 2.OA.1, 3.OA.1
- 3.OA.A.3:** 3.OA.1, 3.OA.2
- 3.OA.A.4:** 3.OA.1, 3.OA.2, 3.OA.3
- 3.OA.B.6:** 2.NBT.5, 3.OA.1, 3.OA.2, 3.OA.4, 3.OA.5
- 3.MD.C.5:** K.G.3, 1.MD.2, 1.G.2, 2.MD.1
- 3.MD.C.6:** 2.G.2, 3.MD.5
- 3.MD.C.7a,b:** 2.G.2, 3.OA.3, 3.OA.7, 3.MD.5, 3.MD.6
- 3.NBT.A.1:** 2.NBT.1, 2.NBT.4
- 3.NBT.A.3:** 2.NBT.1

Common Misconceptions:

3.OA.A.1 - 3.OA.A.4:

Students think a symbol (? or []) is always the place for the answer. This is especially true when the problem is written as $15 \div 3 = ?$ or $15 = x \cdot 3$. Students also think that $3 \div 15 = 5$ and $15 \div 3 = 5$ are the same equations. The use of models is essential in helping students eliminate this understanding. The use of a symbol to represent a number once cannot be used to represent another number in a different problem/situation. Presenting students with multiple situations in which they select the symbol and explain what it represents will counter this misconception.

3.MD.C.5:

Students may confuse perimeter and area when they measure the sides of a rectangle and then multiply. They think the attribute they find is length, which is perimeter. Pose problems situations that require students to explain whether they are to find the perimeter or area.

3.NBT.A.1

The use of terms like “round up” and “round down” confuses many students. For example, the number 37 would round to 40 or they say it “rounds up”. The digit in the tens place is changed from 3 to 4 (rounds up). This misconception is what causes the problem when applied to rounding down. The number 32 should be rounded (down) to 30, but using the logic mentioned for rounding up, some students may look at the digit in the tens place and take it to the previous number, resulting in the incorrect value of 20. To remedy this misconception, students need to use a number line to visualize the placement of the number and/or ask questions such as: “What tens are 32 between and which one is it closer to?” Developing the understanding of what the answer choices are before rounding can alleviate much of the misconception and confusion related to rounding. Students may round numbers incorrectly because they do not look at the place to the immediate right of the place being rounded. Have students circle the place to which they are rounding and underline the number to the immediate right before rounding.

Number Fluency:

3.OA.7 Students fluently multiply and divide within 100. By the end of grade 3, they know all products of two one-digit numbers from memory.

3.NBT.2 Students fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Think Central Online Resource: Strategies and Practice for Skills and Facts Fluency

Achieve the Core – GoMath Fluency Activities

<https://achievethecore.org/page/2853/go-math-k-5-guidance-documents>

Achieve the Core – Fluency Activities

<https://achievethecore.org/page/2948/fluency-resources-for-grade-level-routines>

Xtra Math

https://xtramath.org/#/signin/student_other

Engage NY Sprints

<https://www.saugerties.k12.ny.us/site/handlers/filedownload.ashx?moduleinstanceid=9558&dataid=14912&FileName=G3-M1-SPRINTS-FINAL.pdf>

Math Coach – Fact Fluency <http://schoolwires.henry.k12.ga.us/Page/21865>

Math Wire – Basic Facts Link <http://mathwire.com/numbersense/bfactslinks.html>

Math Fact Practice <http://www.playkidsgames.com/games/mathfact/mathFact.htm>

District/School Tasks	District/School Primary and Supplementary Resources
<p>NJDOE Digital Item Library https://nj.digitalitemlibrary.com/home</p> <p>NJSLA Mathematics Evidence Statements https://docs.google.com/spreadsheets/d/18M5r1jk4P729fTpAIWAzrw1gE6tken233I-Yk0U712M/edit#gid=554025491</p> <p>LinkIt! Form A, B, & C</p>	<p>Text – Go Math</p> <p>Think Central Online Resources: https://www-k6.thinkcentral.com/ePC/start.do</p> <p>Go Math- Strategic Intervention Teacher Activity Guide</p> <p>HMH Getting Ready for the PARCC Assessments</p> <p>Go Math Chapter Resources</p> <ul style="list-style-type: none"> ● Chapter 1 ● Chapter 3 ● Chapter 4 <p>3rd grade Flip Book: http://community.ksde.org/Default.aspx?tabid=5646</p> <p>North Carolina Dept of Ed. Wikispaces: http://maccss.ncdpi.wikispaces.net/Elementary</p> <p>PARCC Math Resources http://www.parc-assessment.org/assessments/test-design/mathematics/math-test-specifications-documents</p> <p>101 Math Discourse Questions: http://www.casamples.com/downloads/100MathDiscourseQuestions_Printable.pdf</p> <p>Asking Effective Questions http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/CBS_AskingEffectiveQuestions.pdf</p>
Instructional Best Practices	
<ol style="list-style-type: none"> 1. Identifying similarities and differences 2. Summarizing and note taking 3. Reinforcing effort and providing recognition 4. Homework and practice 5. Nonlinguistic representations 	<ol style="list-style-type: none"> 6. Cooperative learning 7. Setting objectives and providing feedback 8. Generating and testing hypotheses 9. Cues, questions, and advance organizers 10. Manage response rates

Vocabulary

3.OA.A.1, 2, 3, & 4

Represent and solve problems involving multiplication and division.

operations, multiplication, division, factor, product, quotient, partitioned equally, equal shares, number of groups, number in the groups, array, equation, unknown, expression

3.OA.B.6

Understand properties of multiplication and the relationship between multiplication and division.

operation, multiply, divide, factor, product, quotient, dividend, divisor, strategies, unknown, (properties)-rules about how numbers work

3.MD.C.5, 6, & 7

Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

attribute, area, square unit, plane figure, gap, overlap, square cm, square m, square in., square ft, nonstandard units, tiling, side length, decomposing

3.NBT.A.1 & 3

Use place value understanding and properties of operations to perform multi-digit arithmetic.

place value, round, addition, add, addend, sum, subtraction, subtract, difference, strategies, Associative, Commutative, Identity (properties)-rules about how numbers work

9.1 Personal Financial Literacy, 9.2 Career Awareness, Exploration, Preparation and Training & 9.4 Life Literacies and Key Skills

9.4.5.CI.3: Participate in brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.2: Identify a problem and list the types of individuals and resources (e.g., school, community agencies, governmental, online) that can aid in solving the problem (e.g., 2.1.5.CHSS.1, 4-ESS3-1).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3).

9.4.5.IML.1: Evaluate digital sources for accuracy, perspective, credibility and relevance (e.g., Social Studies Practice - Gathering and Evaluating Sources).

9.4.5.IML.2: Create a visual representation to organize information about a problem or issue (e.g., 4.MD.B.4, 8.1.5.DA.3).

9.4.5.IML.3: Represent the same data in multiple visual formats in order to tell a story about the data.

The implementation of the 21st Century skills and standards for students of the Winslow Township District is infused in an interdisciplinary format in a variety of curriculum areas that include, English language Arts, Mathematics, School Guidance, Social Studies, Technology, Visual and Performing Arts, Science, Physical Education and Health, and World Language.: Additional opportunities to address 9.1, 9.2 & 9.4:

Philadelphia Mint

<https://www.usmint.gov/learn/kids/resources/educational-standards>

Different ways to teach Financial Literacy.

<https://www.makeuseof.com/tag/10-interactive-financial-websites-teach-kids-money-management-skills/>

Suggested Modifications for Special Education/504

Students with special needs: The students' needs will be addressed on an individual and grade level using a variety of modalities. Accommodations will be made for those students who need extra time to complete assignment. Support staff will be available to aid students related to IEP specifications. 504 accommodations will also be attended to by all instructional leaders. Physical expectations and modifications, alternative assessments, and scaffolding strategies will be used to support this learning. The use of Universal Design for Learning (UDL) will be considered for all students as teaching strategies are considered.

- Provide the opportunity to re-take tests
- Modify activities/assignments/projects/assessments
- Breakdown activities/assignments/projects/assessments into manageable units
- Additional time to complete activities/assignments/projects/assessments
- Provide an option for alternative activities/assignments/projects/assessments
- Modify Content
- Modify Amount
- Small Group Intervention/Remediation
- Individual Intervention/Remediation
- Additional Support Materials
- Guided Notes
- Graphic Organizers
- Adjust Pacing of Content
- Increase one on one time
- Peer Support
- Other Modifications for Special Education:
 - Think Central Online Resources:
 - Reteach
 - Strategic Intervention
 - Intensive Intervention Skill Pack
 - Response to Intervention Activities

Suggested Modifications for At-Risk Students

Formative and summative data will be used to monitor student success. At first signs of failure, student work will be reviewed to determine support. This may include parent consultation, basic skills review and differentiation strategies. With considerations to UDL, time may be a factor in overcoming developmental considerations

- Provide the opportunity to re-take tests
- Increase one on one time
- Oral prompts can be given
- Using visual demonstrations, illustrations, and models
- Give directions/instructions verbally and in simple written format
- Peer Support
- Modify activities/assignments/projects/assessments
- Additional time to complete activities/assignments/projects/assessments
- Provide an option for alternative activities/assignments/projects/assessments
- Modify Content
- Modify Amount
- Adjust Pacing of Content
- Small Group Intervention/Remediation
- Individual Intervention/Remediation
- Additional Support Materials
- Guided Notes
- Graphic Organizers
- Other Modifications for Students At-Risk:
 - Think Central Online Resources:
 - Reteach
 - Strategic Intervention
 - Intensive Intervention Skill Pack
 - Response to Intervention Activities

English Language Learners		Suggested Modifications for Gifted Students	
<p>All WIDA Can Do Descriptors can be found at this link: https://wida.wisc.edu/teach/can-do/descriptors</p> <p><input type="checkbox"/> Grades 2-3 WIDA Can Do Descriptors:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Listening <input type="checkbox"/> Speaking <input type="checkbox"/> Reading <input type="checkbox"/> Writing <input type="checkbox"/> Oral Language <p>Students will be provided with accommodations and modifications that may include:</p> <ul style="list-style-type: none"> • Relate to and identify commonalities in mathematics studies in student’s home country • Assist with organization • Use of computer • Emphasize/highlight key concepts • Teacher Modeling • Peer Modeling • Label Classroom Materials - Word Walls 		<p>Students excelling in mastery of standards will be challenged with complex, high level challenges related to the topic.</p> <ul style="list-style-type: none"> • Raise levels of intellectual demands • Require higher order thinking, communication, and leadership skills • Differentiate content, process, or product according to student’s readiness, interests, and/or learning styles • Provide higher level texts • Expand use of open-ended, abstract questions • Critical and creative thinking activities that provide an emphasis on research and in-depth study • Enrichment Activities/Project-Based Learning/ Independent Study <p>Additional Strategies may be located at the links:</p> <ul style="list-style-type: none"> ❖ Gifted Programming Standards ❖ Webb’s Depth of Knowledge Levels and/or Revised Bloom’s Taxonomy ❖ REVISED Bloom’s Taxonomy Action Verbs 	
Suggested Activities			
<input type="checkbox"/> Do Now/Warm-Up <input type="checkbox"/> Whole Group <input type="checkbox"/> Small Groups <input type="checkbox"/> Guided Practice <input type="checkbox"/> Independent Practice	<input type="checkbox"/> HMH Getting Ready for the PARCC Assessments <input type="checkbox"/> Go Math Concepts Readers <input type="checkbox"/> Go Math Stem Activities <input type="checkbox"/> Mega Math- Think Central Online Resource <input type="checkbox"/> Go Math Animated Math Models <input type="checkbox"/> Go Math Grab and Go Activity Center Cards <input type="checkbox"/> Math on the Spot Video Tutorials- Think Central Online Resource <input type="checkbox"/> Go Math! Personal Math Trainer	<input type="checkbox"/> Centers <input type="checkbox"/> Intervention/Remediation <input type="checkbox"/> Projects <input type="checkbox"/> Link It Library	<input type="checkbox"/> Academic Games <input type="checkbox"/> Other Suggested Activities: <input type="checkbox"/> Khan Academy <input type="checkbox"/> Brain Pop Jr. <input type="checkbox"/> Prodigy <input type="checkbox"/> Kahoot

Interdisciplinary Connections

Go Math Grab and Go! Activities (Reading, Science, Math, Social Studies)

Go Math Real World Project: Big Idea, Numbers in Base Ten and Operations and Algebraic Thinking (Math, Reading, Writing, Science, Social Studies)

Go Math Cross-Curricular Science and Social Studies questions, experiments, and activities embedded throughout the chapter.

Integration of Computer Science and Design Thinking NJSLS 8

8.1.5.CS.1: Model how computing devices connect to other components to form a system.

8.1.5.NI.1: Develop models that successfully transmit and receive information using both wired and wireless methods.

8.1.5.IC.2: Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users.

8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data.

8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.