

# Red Bank Charter School

## Grade 3 Mathematics Curriculum

Recommended Pacing Guide	
Unit 1: Operations and Algebraic Thinking	50 Days
Unit 2: Number and Operations in Base Ten	25 Days
Unit 3: Number and Operations - Fractions	40 Days
Unit 4: Measurement and Data	55 Days
Unit 5: Geometry	10 Days

Suggested Accommodations For All Units
<p><b>English Language Learners:</b></p> <ul style="list-style-type: none"><li>● Pair ELL student with student who speaks English and understands/ able to communicate with student's native language</li><li>● Simplify content</li><li>● Google Translator</li><li>● Multi - language word wall</li><li>● Provide extended time</li><li>● Speak clearly and slowly, avoid slang and idiomatic expressions</li></ul>
<p><b>Special Education/504 Plans/Students with Disabilities:</b></p> <ul style="list-style-type: none"><li>● Follow specific students accommodations and modifications as listed in individual student IEP or 504 plan</li></ul>
<p><b>Gifted and Talented:</b></p> <ul style="list-style-type: none"><li>● Provide appropriate challenges for a wide ranging skills and development.</li><li>● Participate in inquiry and project-based learning units of study.</li><li>● Provide options, alternatives and choices to differentiate and broaden the curriculum</li></ul>
<p><b>Students at Risk of Failure:</b></p> <ul style="list-style-type: none"><li>● Students Motivation<ul style="list-style-type: none"><li>○ Interest</li><li>○ Build confidence</li><li>○ Independence</li><li>○ Enjoyment</li></ul></li></ul>
<p><b>Economically Disadvantaged:</b></p> <ul style="list-style-type: none"><li>● Build a safe and nurturing atmosphere</li><li>● Providing needed academic resources (paper, pencils, computer time,)</li><li>● Be flexible with assignments</li></ul>

**Culturally Diverse:**

- Involve families in student learning
- Provide immediate praise and feedback
- Respect cultural traditions
- Provided students with necessary academic resources and materials
- Provide visuals

**Domain 1: Operations and Algebraic Thinking**

**Duration: 50 Days**

**Standards/Learning Targets**

**New Jersey Student Learning Focus Standards: Represent and solve problems involving multiplication and division.**

**NJSLS.MATH.CONTENT.3.OA.A.1**

- Interpret products of whole numbers, e.g., interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each. For example, describe and/or represent a context in which a total number of objects can be expressed as  $5 \times 7$ .

**NJSLS.MATH.CONTENT.3.OA.A.2**

- Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe and/or represent a context in which a number of shares or a number of groups can be expressed as  $56 \div 8$ .

**NJSLS.MATH.CONTENT.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.<sup>1</sup>

**NJSLS.MATH.CONTENT.3.OA.A.4**

- Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations  $8 \times ? = 48$ ,  $5 = \_ \div 3$ ,  $6 \times 6 = ?$
- Understand properties of multiplication and the relationship between multiplication and division.

**NJSLS.MATH.CONTENT.3.OA.B.5**

- Apply properties of operations as strategies to multiply and divide.<sup>2</sup> 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  $8 \times 7$  as  $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$ . (Distributive property.)
- CCSS.MATH.CONTENT.3.OA.B.6 Understand division as an unknown-factor problem. For example, find  $32 \div 8$  by finding the number that makes 32 when multiplied by 8. Multiply and divide within 100.

**NJSLS.MATH.CONTENT.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.
- Solve problems involving the four operations, and identify and explain patterns in arithmetic.

**NJSLS.MATH.CONTENT.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.

**NJSLS.MATH.CONTENT.3.OA.D.9**

- Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. 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.

**Primary Interdisciplinary Connections:****Science Connections**

- 3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

**Literacy Connections**

- 3.9.K.1.NJSLSA.L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- 3.9.K.3.NJSLSA.L6 Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading writing speaking and listening at the college and career readiness level demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression
- 3.1.K.3.NJSLSA.R7 Integrate and evaluate content presented in diverse media and formats including visually and quantitatively as well as in words.
- 3.7.K.1. NJSLSA.SL2 Integrate and evaluate information presented in diverse media and formats including visually quantitatively and orally.
- 3.7.K.2. NJSLSA.SL4 Present information findings and supporting evidence such that listeners can follow the line of reasoning and the organization development and style are appropriate to task purpose and audience.
- 3.10.3.2.L.3.3 Use knowledge of language and its conventions when writing, speaking, reading or listening. A.Choose words and phrases for effect. B.Recognize and observe differences between the conventions of spoken and written standard English.
- 3.10.3.3.L.3.6 Acquire and use accurately grade-appropriate conversational general academic and domain-specific words and phrases including those that signal spatial and temporal relationships (e.g. After dinner that night we went looking for them).
- 3.8.3.1.SL.3.1 Engage effectively in a range of collaborative discussions (one-on-one in groups and teacher led) with diverse partners on grade 3 topics and texts
- 3.8.3.2.SL.3.6 Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

**Technology Standards:**

- 8.1.5.D.2 Analyze the resource citations in online materials for proper use.
- 8.1.5.A.1 Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.

**21st Century Themes/Career Readiness:**

**Career Ready Practices**

- CRP2. Apply appropriate academic and technical skills.
- CRP 4. Communicate clearly and effectively and with reason.
- CRP 6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP 11. Use technology to enhance productivity.

**Personal Financial Literacy**

- 9.1.4.B.3 Explain what a budget is and why it is important.

**Career Awareness Exploration and Preparation**

- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

**Evidence of Student Learning****Formative Tasks:**

- Teacher Observation
- Teacher Checklist
- Verbal question & answer
- Self-evaluation of performance and progress

**Alternative Assessments:**

- End of unit project

**Summative Assessments:**

- Student participation
- Rubric score
- Performance Test

**Benchmark Assessments:**

- Baseline SGO
- Mid-year SGO
- End of year SGO

**Knowledge & Skills****Enduring Understandings:**

- Change is fundamental to understanding functions.
- Numbers or objects that repeat in predictable ways can be described or generalized.
- An operation can be “undone” by its inverse.
- Rules of arithmetic and algebra can be used together with notions of equivalence to transform equations and inequalities so solutions can be found.

**Essential Questions:**

- How can change be described mathematically?
- How are patterns of change related to the behavior of functions?
- How do mathematical models/representations shape our understanding of mathematics?

**Core Instructional & Supplemental Materials****Suggested Activities/Resources:**

- Vocabulary Cards
- Math Musicals

**Varied Levels of Text/Resources:**

- Big Ideas Math Modeling Real Life 3rd Grade
- Big Ideas Math Ready-Made Centers 3rd

- Literature Kit
- [www.xtramath.com](http://www.xtramath.com)
- IXL

Grade

- [www.bigideasmath.com](http://www.bigideasmath.com)
- Student Edition Consumable Book
- Teacher's Edition
- Family Letter
- Extra Practice
- Re-teach
- Enrichment and Extension
- Chapter Self Assessment
- Big Ideas Math Manipulatives
- Prerequisite Skills Practice
- Pre- and Post- Course Tests
- Course Benchmark Tests
- Chapter Tests

**Unit 2: Number and Operations in Base Ten**

**Duration: 25 Days**

**Standards/Learning Targets**

**New Jersey Student Learning Focus Standards: Use place value understanding and properties of operations to perform multi-digit arithmetic.**

**NJSLS.MATH.CONTENT.3.NBT.A.1**

- Use place value understanding to round whole numbers to the nearest 10 or 100.

**NJSLS.MATH.CONTENT.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.

**NJSLS.MATH.CONTENT.3.NBT.A.3**

- Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g.,  $9 \times 80$ ,  $5 \times 60$ ) using strategies based on place value and properties of operations.

**Primary Interdisciplinary Connections:**

**Science Connections**

- 3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

**Literacy Connections**

- 3.9.K.1.NJSLSA.L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- 3.9.K.3.NJSLSA.L6 Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading writing speaking and listening at the college and career readiness level demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression
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- 3.10.3.3.L.3.6 Acquire and use accurately grade-appropriate conversational general academic and domain-specific words and phrases including those that signal spatial and temporal relationships (e.g. After dinner that night we went looking for them).
- 3.8.3.1.SL.3.1 Engage effectively in a range of collaborative discussions (one-on-one in groups and teacher-led) with diverse partners on grade 3 topics and texts 3.8.3.2.SL.3.6 Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

**Technology Standards:**

- 8.1.5.D.2 Analyze the resource citations in online materials for proper use.
- 8.1.5.A.1 Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.

**21st Century Themes/Career Readiness:****Career Ready Practices**

- CRP2. Apply appropriate academic and technical skills.
- CRP 4. Communicate clearly and effectively and with reason.
- CRP 6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP 11. Use technology to enhance productivity.

**Personal Financial Literacy**

- 9.1.4.B.3 Explain what a budget is and why it is important.

**Career Awareness Exploration and Preparation**

- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

**Evidence of Student Learning****Formative Tasks:**

- Teacher Observation
- Teacher Checklist
- Verbal question & answer
- Self-evaluation of performance and progress

**Alternative Assessments:**

- End of unit project

**Summative Assessments:**

- Student participation
- Rubric score
- Performance Test

**Benchmark Assessments:**

- Baseline SGO
- Mid-year SGO
- End of year SGO

**Knowledge & Skills****Enduring Understandings:**

- Numbers can be represented in multiple ways.
- The same operations can be applied in problem situations that seem quite different from another.
- Being able to compute fluently means making smart choices about which tools to use and when to use them.
- Knowing the reasonableness of an answer comes from using good number sense and estimation strategies.

**Essential Questions:**

- What makes an estimate reasonable?
- What makes an answer exact?
- What makes a strategy both effective and efficient?
- What makes a solution optimal?



## Core Instructional & Supplemental Materials

### Suggested Activities/Resources:

- Vocabulary Cards
- Math Musicals
- Literature Kit
- [www.xtramath.com](http://www.xtramath.com)
- IXL

### Varied Levels of Text/Resources:

- Big Ideas Math Modeling Real Life 3rd Grade
- [www.bigideasmath.com](http://www.bigideasmath.com)
- Big Ideas Math Ready-Made Centers 3rd Grade
- Student Edition Consumable Book
- Teacher's Edition
- Family Letter
- Extra Practice
- Re-teach
- Enrichment and Extension
- Chapter Self Assessment
- Big Ideas Math Manipulatives
- Prerequisite Skills Practice
- Pre- and Post- Course Tests
- Course Benchmark Tests
- Chapter Tests

**Unit 3: Number and Operations - Fractions****Duration: 40 Days****Standards/Learning Targets****New Jersey Student Learning Focus Standards: Develop understanding of fractions as numbers.****NJSLS.MATH.CONTENT.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 part of size  $1/b$ .

**NJSLS.MATH.CONTENT.3.NF.A.2**

- Understand a fraction as a number on the number line; represent fractions on a number line diagram.

**NJSLS.MATH.CONTENT.3.NF.A.2.A**

- Represent a fraction  $1/b$  on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into  $b$  equal parts.
- Recognize that each part has size  $1/b$  and that the endpoint of the part based at 0 locates the number  $1/b$  on the number line.

**NJSLS.MATH.CONTENT.3.NF.A.2.B**

- Represent a fraction  $a/b$  on a number line diagram by marking off a lengths  $1/b$  from
- Recognize that the resulting interval has size  $a/b$  and that its endpoint locates the number  $a/b$  on the number line.

**NJSLS.MATH.CONTENT.3.NF.A.3**

- Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

**NJSLS.MATH.CONTENT.3.NF.A.3.A**

- Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.

**NJSLS.MATH.CONTENT.3.NF.A.3.B**

- Recognize and generate simple equivalent fractions, e.g.,  $1/2 = 2/4$ ,  $4/6 = 2/3$ .
- Explain why the fractions are equivalent, e.g., by using a visual fraction model.

**NJSLS.MATH.CONTENT.3.NF.A.3.C**

- Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form  $3 = 3/1$ ; recognize that  $6/1 = 6$ ; locate  $4/4$  and 1 at the same point of a number line diagram.

**NJSLS.MATH.CONTENT.3.NF.A.3.D**

- Compare two fractions with the same numerator or the same denominator by reasoning about their size.
- Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, e.g., by using a visual fraction model.

### **Primary Interdisciplinary Connections:**

#### **Science Connections**

- 3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

#### **Literacy Connections**

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#### **Visual and Performing Arts**

- 1.3.5.D1 Work individually and collaboratively to create two and three dimensional works of art that make cohesive visual statements and that employ the elements of art and principles of design.

#### **Technology Standards:**

- 8.1.5.D.2 Analyze the resource citations in online materials for proper use.
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#### **21st Century Themes/Career Readiness:**

**Career Ready Practices**

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**Personal Financial Literacy**

- 9.1.4.B.3 Explain what a budget is and why it is important.

**Career Awareness Exploration and Preparation**

- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

**Evidence of Student Learning****Formative Tasks:**

- Teacher Observation
- Teacher Checklist
- Verbal question & answer
- Self-evaluation of performance and progress

**Alternative Assessments:**

- End of unit project

**Summative Assessments:**

- Student participation
- Rubric score
- Performance Test

**Benchmark Assessments:**

- Baseline SGO
- Mid-year SGO
- End of year SGO

**Knowledge & Skills****Enduring Understandings:**

- Change is fundamental to understanding functions.
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- Rules of arithmetic and algebra can be used together with notions of equivalence to transform equations and inequalities so solutions can be found.

**Essential Questions:**

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- Chapter Tests

**Unit 4: Measurement and Data****Duration: 55 Days****Standards/Learning Targets**

**New Jersey Student Learning Focus Standards: Solve problems involving measurement and estimation.**

**NJSLS.MATH.CONTENT.3.MD.A.1**

- Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

**NJSLS.MATH.CONTENT.3.MD.A.2**

- Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).
- Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.
- Represent and interpret data.

**NJSLS.MATH.CONTENT.3.MD.B.3**

- Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories.
- Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.

**NJSLS.MATH.CONTENT.3.MD.B.4**

- Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch.
- Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.
- Geometric measurement: understand concepts of area and relate area to multiplication and addition.

**CCSS.MATH.CONTENT.3.MD.C.5**

- Recognize area as an attribute of plane figures and understand concepts of area measurement.

**NJSLS.MATH.CONTENT.3.MD.C.5.A**

- A square with side length 1 unit, called “a unit square” is said to have “one square” of area, and can be used to measure area.

**NJSLS.MATH.CONTENT.3.MD.C.5.B**

- A plane figure, which can be covered without gaps or overlaps by  $n$  unit squares is said to have an area of  $n$  square units.

**NJSLS.MATH.CONTENT.3.MD.C.6**

- Measure areas by counting unit squares (square cm, square m, square in, square ft, and non-standard units).

**NJSLS.MATH.CONTENT.3.MD.C.7**

- Relate area to the operations of multiplication and addition.

**NJSLS.MATH.CONTENT.3.MD.C.7.A**

- Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

**Primary Interdisciplinary Connections:****Science Connections**

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**Literacy Connections**

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**Technology Standards:**

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## 21st Century Themes/Career Readiness:

### Career Ready Practices

- CRP2. Apply appropriate academic and technical skills.
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- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP 11. Use technology to enhance productivity.

### Personal Financial Literacy

- 9.1.4.B.3 Explain what a budget is and why it is important.

### Career Awareness Exploration and Preparation

- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

## Evidence of Student Learning

### Formative Tasks:

- Teacher Observation
- Teacher Checklist
- Verbal question & answer
- Self-evaluation of performance and progress

### Alternative Assessments:

- End of unit project

### Summative Assessments:

- Student participation
- Rubric score
- Performance Test

### Benchmark Assessments:

- Baseline SGO
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- End of year SGO

## Knowledge & Skills

### Enduring Understandings:

- Linear measure, area, and volume are fundamentally different but may be related to one another in ways that permit calculation of one given the other.

### Essential Questions:

- How are measurement and counting related?
- How does what we measure affect how we measure?
- How can space be defined through numbers/measurement?

## Core Instructional & Supplemental Materials

### Suggested Activities/Resources:

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**Unit 5: Geometry****Duration: 10 Days****Standards/Learning Targets****New Jersey Student Learning Focus Standards: Reason with shapes and their attributes.****NJSLS.MATH.CONTENT.3.G.A.1**

- Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals).
- Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

**NJSLS.MATH.CONTENT.3.G.A.2**

- Partition shapes into parts with equal areas.
- Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as  $\frac{1}{4}$  of the area of the shape.

**Primary Interdisciplinary Connections:****Science Connections**

- 3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

**Literacy Connections**

- 3.9.K.1.NJSLSA.L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- 3.9.K.3.NJSLSA.L6 Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading writing speaking and listening at the college and career readiness level demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.
- 3.1.K.3.NJSLSA.R7 Integrate and evaluate content presented in diverse media and formats including visually and quantitatively as well as in words.
- 3.7.K.1. NJSLSA.SL2 Integrate and evaluate information presented in diverse media and formats including visually quantitatively and orally.
- 3.7.K.2. NJSLSA.SL4 Present information findings and supporting evidence such that listeners can follow the line of reasoning and the organization development and style are appropriate to task purpose and audience.
- 3.10.3.2.L.3.3 Use knowledge of language and its conventions when writing, speaking , reading or listening. A.Choose words and phrases for effect. B.Recognize and observe differences between the conventions of spoken and written standard English.
- 3.10.3.3.L.3.6 Acquire and use accurately grade-appropriate conversational general academic and domain-specific words and phrases including those that signal spatial and temporal relationships (e.g. After dinner that night we went looking for them).
- 3.8.3.1.SL.3.1 Engage effectively in a range of collaborative discussions (one-on-one in groups and teacher led) with diverse partners on grade 3 topics and texts.

- 3.8.3.2.SL.3.6 Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

**Technology Standards:**

- 8.1.5.D.2 Analyze the resource citations in online materials for proper use.
- 8.1.5.A.1 Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.

**21st Century Themes/Career Readiness:**

**Career Ready Practices**

- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP 6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP 11. Use technology to enhance productivity.

**Personal Financial Literacy**

- 9.1.4.B.3 Explain what a budget is and why it is important.

**Career Awareness Exploration and Preparation**

- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

**Evidence of Student Learning**

**Formative Tasks:**

- Teacher Observation
- Teacher Checklist
- Verbal question & answer
- Self-evaluation of performance and progress

**Alternative Assessments:**

- End of unit project

**Summative Assessments:**

- Student participation
- Rubric score
- Performance Test

**Benchmark Assessments:**

- Baseline SGO
- Mid-year SGO
- End of year SGO

**Knowledge & Skills**

**Enduring Understandings:**

- Two- and three-dimensional objects can be described, classified, and analyzed by their attributes.
- An object in a plane or in space can be oriented in an infinite number of ways while maintaining its size or shape.
- An object's location on a plane or in space can be described quantitatively.

**Essential Questions:**

- Why do we compare contrast and classify objects?
- How do decomposing and recomposing shapes help us build our understanding of mathematics?
- How can transformations be described mathematically?

Linear measure, area, and volume are fundamentally different but may be related to one another in ways that permit calculation of one given the other

### Core Instructional & Supplemental Materials

#### Suggested Activities/Resources:

- Vocabulary Cards
- Math Musicals
- Literature Kit
- [www.xtramath.com](http://www.xtramath.com)
- IXL

#### Varied Levels of Text/Resources:

- Big Ideas Math Modeling Real Life 3rd Grade
- Big Ideas Math Ready-Made Centers 3rd Grade
- [www.bigideasmath.com](http://www.bigideasmath.com)
- Student Edition Consumable Book
- Teacher's Edition
- Family Letter
- Extra Practice
- Re-teach
- Enrichment and Extension
- Chapter Self Assessment
- Big Ideas Math Manipulatives
- Prerequisite Skills Practice
- Pre- and Post- Course Tests
- Course Benchmark Tests
- Chapter Tests