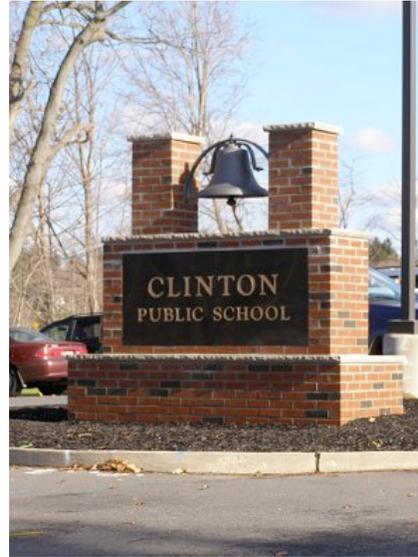


# Clinton-Glen Gardner School District



## Curriculum Management System

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Mathematics

Grades 3

**\* For adoption by all regular education programs as specified and for adoption or adaptation by all Special Education Programs in accordance with Board of Education Policy #2200.**

Board Approved: November 18, 2020

# CLINTON-GLEN GARDNER SCHOOL DISTRICT

## ADMINISTRATION

**Dr. Seth Cohen, Superintendent/Principal**  
**Mrs. Bernadette Wang, Business Administrator**  
**Mrs. Jacqueline Turner, Assistant Principal**  
**Dr. Jenine Kastner, Director of Special Services**

## BOARD OF EDUCATION

**Mr. Brendan McIsaac, President**  
**Craig Sowell, Vice President**  
**Mr. Carl Sabatino**  
**Mrs. Lorraine Linfante**  
**Dr. Ashutosh Tewari**

## **Acknowledgments**

**Jamie Friedel  
Hailey McGavisk**

# **Clinton-Glen Gardner School District**

## **Mission**

The Clinton-Glen Gardner School District, a community who values traditions, nurtures and cultivates each child to be a compassionate, curious, and creative thinker entrusted and empowered to build and lead the future.

## **Philosophy**

The economy in which graduates of our schools will seek employment is more competitive than ever and is rapidly changing in response to advances in technology. To compete in today's global, information-based economy, students must be able to solve real problems, reason effectively, and make logical connections. In this changing world those who have a good understanding of mathematics will have many opportunities and doors open to them throughout their lives. Today's workforce requires mathematical knowledge and skills in areas such as data analysis, problem-solving, pattern recognition, statistics and probability; therefore, our school's curriculum must prepare students for these expectations.

The Clinton-Glen Gardner School is committed to providing all students with the opportunity and the support necessary to learn significant mathematics with depth and understanding. To that end, students will engage in a wide variety of learning activities designed to develop their ability to reason and solve complex problems. Calculators, computers, manipulatives, technology, and the Internet will be used as tools to enhance learning and assist in problem solving. Group work, projects, literature, and interdisciplinary activities will make mathematics more meaningful and aid understanding. Classroom instruction will be designed to meet the learning needs of all children and will reflect a variety of learning styles.

The math curriculum fosters students who:

- Develop computational, conceptual, problem-solving and reasoning skills
- Demonstrate their understanding of mathematical concepts based on higher levels of mathematical thought
- Use technology and other tools as an integral part of solving mathematical problems

## New Jersey State Department of Education New Jersey Student Learning Standards

### A note about New Jersey Student Learning Standards:

#### Intent and Spirit of the New Jersey Mathematics Learning Standards

For more than a decade, research studies of mathematics education in high-performing countries have concluded that mathematics education in the United States must become substantially more focused and coherent in order to improve mathematics achievement in this country. To deliver on this promise, the mathematics standards are designed to address the problem of a curriculum that is "a mile wide and an inch deep."

The math standards provide **clarity and specificity** rather than broad general statements. The standards draw on the most important international models for **mathematical practice**, as well as research. They endeavor to follow the design envisioned by William Schmidt and Richard Houang (2002), by not only **stressing conceptual understanding** of key ideas, but also by continually returning to organizing principles (coherence) such as place value and the laws of arithmetic to structure those ideas.

In addition, the "sequence of topics and performances" that is outlined in a body of math standards must respect what is already known about how students learn. As Confrey (2007) points out, developing "sequenced obstacles and challenges for students...absent the insights about meaning that derive from careful study of learning, would be unfortunate and unwise." Therefore, the development of the standards began with research-based learning progressions detailing what is known today about how students' mathematical knowledge, skill, and understanding develop over time. The knowledge and skills students need to be prepared for mathematics in college, career, and life are woven throughout the mathematics standards.

#### **Mathematics: Standards for Mathematical Practice Interpreted for Kindergarten Through Second Grade**

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with long standing importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation and connections. The second are the strands of mathematical proficiency specified in the National Research Council's report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately) and productive disposition (habitual inclination to see mathematics as sensible, useful and worthwhile, coupled with a belief in diligence and one's own efficacy).

The Standards for Mathematical Practice are:

**1. MAKE SENSE OF PROBLEMS AND PERSEVERE IN SOLVING THEM.**

As you look at or read a mathematical problem, think about what it means and what it is asking you to do. Also think about what would be a good way to start solving it. Ask yourself:

- What does the problem tell me?
  - What information is given?
  - What are the relationships among parts of the problem?
  - What is the goal of solving the problem?
  - Have I seen other problems similar to this one?
- What does the problem ask me to find out (solve)?
- How should I start solving the problem?
- Can pictures or a drawing help me to figure out how to solve the problem?
- Does how I'm answering the problem make sense with what the problem is asking?
- What are some other ways to solve the problem?
- Can I use another way to check if my answer is correct?
- Does my answer make sense?

**2. REASON ABSTRACTLY AND QUANTITATIVELY.**

Understand the relationship of numbers and number problems and represent them using pictures, drawings or symbols. Talk about the parts of number problems using pictures, drawings or symbols as well as how the pictures, drawings or symbols represent and help explain the problem. Show how using different numbers or operations in the same problem changes it.

**3. CONSTRUCT VIABLE ARGUMENTS AND CRITIQUE THE REASONING OF OTHERS.**

Use objects, drawings, diagrams or actions to construct arguments about math problems with understanding and using appropriate vocabulary to explain the reasoning process. Build a local argument, communicate it with others, justify your reasoning process and respond to the reasoning process someone else uses. Express agreement if both arguments are correct and explain why an argument is flawed if it is.

**4. MODEL WITH MATHEMATICS.**

Apply mathematical skills to everyday life, society, the workplace and other situations; identify important quantities in practical situations; write an equation to describe a situation; revise solutions; use tools such as diagrams, two-way tables, graphs, flowcharts and formulas to show relationships; analyze relationships to draw conclusions, interpret results in context and reflect on whether the results make sense.

**5. USE APPROPRIATE TOOLS STRATEGICALLY.**

Identify and make decisions regarding which tool, such as paper and pencil, models, rulers, spreadsheets, etc., to use to help solve mathematical problems as well as know when a tool is not the right one to use. Use technological and other tools to deepen understanding.

**6. ATTEND TO PRECISION.**

Communicate precisely when discussing math incorporating the following:

- Use clear definitions.
- Choose, use and explain symbols correctly, consistently and appropriately.
- Specify units of measure and labels correctly.
- Avoid careless errors.
- Follow formulas to explain thinking to others.

**7. LOOK FOR AND MAKE USE OF STRUCTURE.**

Look for and identify structure and patterns in mathematics (for example, three and seven more is the same amount as seven and three more, or sort shapes according to their number of sides) and see if the pattern or structure changes.

**8. LOOK FOR AND EXPRESS REGULARITY IN REPEATED REASONING.**

Look for repetition in calculations and numeric thinking, such as skip counting. Pay attention to the whole problem and the details and continuously evaluate the accuracy and reasonableness of both intermediate and final answers.

**CONNECTING THE STANDARDS FOR MATHEMATICAL PRACTICE TO THE STANDARDS FOR MATHEMATICS CONTENT**

The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curricula, assessments and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematical instruction. The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word “understand” are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging the mathematical practices. In this respect those content standards, which set an expectation of understanding are potential “points of intersection” between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit time, resources, innovative energies and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development and student achievement in mathematics

# Grade 3 Mathematics Scope and Sequence

## Trimester I September through December Approximately 60 Days

### Topic: Number and Operations – Fractions

- I. Fractions
  - a. Naming equal parts
  - b. Creating equal parts
  - c. Unit fractions
    - i. Naming
    - ii. Comparing
    - iii. Ordering
  - d. Whole number as fractions
  - e. Equivalent fractions

### Topic: Geometry

- II. Geometry
  - a. Polygons
    - i. Attributes
    - ii. Comparisons
    - iii. Classification
    - iv. Creating equal parts
    - v. Naming equal parts

### Standards

**MA.3.NF.A.2** Understand a fraction as a number on the number line; represent fractions on a number line diagram.

**MA.3.NF.A.2a** Represent a fraction  $\frac{1}{n}$  on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into equal parts. Recognize that each part has size  $\frac{1}{n}$  and that the endpoint of the part based at 0 locates the number  $\frac{1}{n}$  on the number line.

**MA.3.NF.A.2b** Represent a fraction  $\frac{a}{n}$  on a number line diagram by marking off lengths  $\frac{1}{n}$  from 0. Recognize that the resulting interval has size  $\frac{a}{n}$  and that its endpoint locates the number  $\frac{a}{n}$  on the number line.

**MA.3.NF.A.3** Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

**MA.3.NF.A.3a** Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.

**MA.3.NF.A.3b** Recognize and generate simple equivalent fractions (e.g.,  $\frac{1}{2} = \frac{2}{4}$ ,  $\frac{4}{6} = \frac{2}{3}$ ). Explain why the fractions are equivalent, e.g., by using a visual fraction model.

**MA.3.NF.A.3c** Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.

**MA.3.NF.A.3d** 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  $<$ .

**MA.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.

**MA.3.G.A.2** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.

## Differentiation/Accommodations/Modifications

**Special Education:** Read and follow IEP/504. Meet with CST case manager if additional guidance is needed.

**For Gifted:** Encourage risk taking in creating their projects as opportunities to stretch skills during production. Actively assess to identify student interests, learning preferences and the ability to work independently.

**At Risk:** Review specific accommodations for individual students in RTI folder. If accommodations are not working, schedule meeting with RTI case manager to discuss and refine/update strategies or refer student to RTI Committee

**ELL:** Meet with Mrs. Olczak to discuss specific accommodations based on student progress and placement on WIDA testing.

**\*Please review appendix for extensive list of strategies for each subgroup.**

## Assessment

**District Benchmark:** Link It

**Formative Assessment:** Discussion, Teacher observation during Rote Counting, Teacher observation during Center work and small group partner work, review of homework

**Summative Assessment:** End of Chapter Go Math quiz, Responses to Open-Ended Questions

**Alternative Assessment:** PBA based on student interest

**During Work Period adjust lessons for individual students and small groups of students based on formative and summative data (Go back and re-teach for those that did not meet standard on benchmark and plan accordingly for those that exceeded benchmark)**

## Core instructional and Supplemental Materials

Go Math Student and Teacher Textbook, Go Math on-line resources, Go Math Workbooks, Go Math Manipulatives, Go Math Videos

Go Math Supplemental Materials (charts, dice, geometric shapes, counting beads, rulers, etc.)

Leveled Classroom library with various mathematical topics

## Interdisciplinary Connections

**LA.RI.3.1** Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

**LA.RI.3.7** Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

**LA.RI.3.2** Determine the main idea of a text; recount the key details and explain how they support the main idea.

**LA.RI.3.10** By the end of the year, read and comprehend literary nonfiction at grade level text complexity or above, with scaffolding as needed. **LA.RF.3.3** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.

### ELA ANCHOR STANDARDS

Key Ideas and Details:

CCSS.ELA-LITERACY.RI.3.1

Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

CCSS.ELA-LITERACY.RI.3.2

Determine the main idea of a text; recount the key details and explain how they support the main idea.

CCSS.ELA-LITERACY.RI.3.3

Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

Craft and Structure:

CCSS.ELA-LITERACY.RI.3.4

Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area*.

CCSS.ELA-LITERACY.RI.3.5

Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.

CCSS.ELA-LITERACY.W.3.2

Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

CCSS.ELA-LITERACY.W.3.2.A

Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.

### 21<sup>st</sup> Century Skills (The ones that apply for this unit are in bold)

1. Creativity & Innovation
2. **Critical Thinking & Problem Solving**
3. **Communication & Collaboration**
4. Media Literacy
5. Information Literacy
6. Information, Communication & Technology

## 21<sup>st</sup> Century Themes (The ones that apply for this unit are in bold)

1. Global Awareness
2. **Financial, Economic, Business and Entrepreneurial Literacy**
3. Civic Literacy
4. Health Literacy
5. Environmental Literacy

## Career Ready Practices and Career Education & Career Exploration

CRP.K-12.CRP2 Apply appropriate academic and technical skills.

CRP.K-12.CRP4 Communicate clearly and effectively and with reason.

CRP.K-12.CRP8 Utilize critical thinking to make sense of problems and persevere in solving them.

CRP.K-12.CRP1 Act as a responsible and contributing citizen and employee.

CRP.K-12.CRP12 Work productively in teams while using cultural global competence.

9.2.4.A.1 Identify reasons why people work, different types of work, and how work can help a person achieve personal and professional goals.

9.2.4.A.2 Identify various life roles and civic and work-related activities in the school, home, and community.

9.2.4.A.3 Investigate both traditional and nontraditional careers and relate information to personal likes and dislikes.

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

**Exploration:** During this trimester students are able to roleplay different careers through pretend play such as being a teacher, fireman, or policeman. Students listen to read alouds that describe aspects of different careers. Students take turns having different classroom “jobs” such as line leader, lunch counter, timekeeper, materials distributor, publisher, editor, and weatherman for which they have specific duties and must take responsibility.

## Technology

TECH.8.1.5.A.CS1

Understand and use technology systems

TECH.8.1.5.E.CS3

Evaluate and select information sources and digital tools based on the appropriateness for specific tasks.

TECH.8.1.5.A

Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.

TECH.8.1.5.A.4

Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data.

TECH.8.1.5.A.1

Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.

TECH.8.1.5.A.CS2

Select and use applications effectively and productively.

### **Technology Infusion: Students are able to understand and use technology systems**

Internet, Web Quests, content-related websites, wireless laptop computers, computer laboratory, classroom computers, and daily interaction with SMART Boards, CDs, DVDs, webinars, video streaming, and podcasting. Utilize programs on the iPad. Watch and interact with letter sound videos.

Observe and engage with SchoolTube videos. Use of books on tape and listening center. Use of Shutterfly, Share Site. Creation and publication of class created books.

**Trimester II**  
**December through March**  
**Approximately 60 Days**

**Topic: Number and Operations – Fractions**

- III. Fractions
  - f. Naming equal parts
  - g. Creating equal parts
  - h. Unit fractions
    - iv. Naming
    - v. Comparing
    - vi. Ordering
  - i. Whole number as fractions
  - j. Equivalent fractions

**Topic: Geometry**

- IV. Geometry
  - b. Polygons
    - vi. Attributes
    - vii. Comparisons
    - viii. Classification
    - ix. Creating equal parts
    - x. Naming equal parts

**Standards**

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- 8. Critical Thinking & Problem Solving**
- 9. Communication & Collaboration**
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9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

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### **Technology**

TECH.8.1.5.A.CS1

Understand and use technology systems

TECH.8.1.5.E.CS3

Evaluate and select information sources and digital tools based on the appropriateness for specific tasks.

TECH.8.1.5.A

Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.

TECH.8.1.5.A.4

Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data.

TECH.8.1.5.A.1

Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.

TECH.8.1.5.A.CS2

Select and use applications effectively and productively.

### **Technology Infusion: Students are able to understand and use technology systems**

Internet, Web Quests, content-related websites, wireless laptop computers, computer laboratory, classroom computers, and daily interaction with SMART Boards, CDs, DVDs, webinars, video streaming, and podcasting, Utilize programs on the iPad. Watch and interact with letter sound videos.

Observe and engage with SchoolTube videos. Use of books on tape and listening center. Use of Shutterfly, Share Site. Creation and publication of class created books.

**Trimester III**  
**March through June**  
**Approximately 60 Days**

**Topic: Measurement and Data**

- V. Area and Perimeter
  - a. Perimeter
  - b. Area
    - i. Unit squares
    - ii. Tiling
    - iii. Formula
- VI. Time, Measurement and Data
  - a. Time
    - i. To the minute
    - ii. Elapsed time
  - b. Volume and Mass
    - i. Grams, kilograms, liters, pounds and ounces
  - c. Length
    - i. Measurement to the  $\frac{1}{2}$  and  $\frac{1}{4}$  mark
  - d. Data
    - i. Organize, interpret and describe data
    - ii. Circle graph
    - iii. Bar graph

Line plot

**Standards**

**MA.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.

**MA.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.

**MA.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.

**MA.3.MD.C.7b** Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

**MA.3.MD.C.7c** Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths and  $+$  is the sum of  $\times$  and  $\times$  . Use area models to represent the distributive property in mathematical reasoning.

**MA.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.

**MA.3.MD.D.8** Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

**MA.3.MD.C.5** Recognize area as an attribute of plane figures and understand concepts of area measurement.

**MA.3.MD.C.5a** A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.

**MA.3.MD.C.5b** 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.  
**MA.3.MD.C.6** Measure areas by counting unit squares (square cm, square m, square in, square ft, and non-standard units).  
**MA.3.MD.C.7** Relate area to the operations of multiplication and addition.  
**MA.3.MD.C.7a** 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.

### Differentiation/Accommodations/Modifications

**Special Education:** Read and follow IEP/504. Meet with CST case manager if additional guidance is needed.  
**For Gifted:** Encourage risk taking in creating their projects as opportunities to stretch skills during production. Actively assess to identify student interests, learning preferences and the ability to work independently.  
**At Risk:** Review specific accommodations for individual students in RTI folder. If accommodations are not working, schedule meeting with RTI case manager to discuss and refine/update strategies or refer student to RTI Committee  
**ELL:** Meet with Mrs. Olczak to discuss specific accommodations based on student progress and placement on WIDA testing.  
**\*Please review appendix for extensive list of strategies for each subgroup.**

### Assessment

**District Benchmark:** Link It  
**Formative Assessment:** Discussion, Teacher observation during Rote Counting, Teacher observation during Center work and small group partner work, review of homework  
**Summative Assessment:** End of Chapter Go Math quiz, Responses to Open-Ended Questions  
**Alternative Assessment:** PBA based on student interest

**During Work Period adjust lessons for individual students and small groups of students based on formative and summative data (Go back and re-teach for those that did not meet standard on benchmark and plan accordingly for those that exceeded benchmark)**

### Core instructional and Supplemental Materials

Go Math Student and Teacher Textbook, Go Math on-line resources, Go Math Workbooks, Go Math Manipulatives, Go Math Videos

Go Math Supplemental Materials (charts, dice, geometric shapes, counting beads, rulers, etc.)

Leveled Classroom library with various mathematical topics

## Interdisciplinary Connections

**LA.RI.3.1** Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

**LA.RI.3.7** Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

**LA.RI.3.2** Determine the main idea of a text; recount the key details and explain how they support the main idea.

**LA.RI.3.10** By the end of the year, read and comprehend literary nonfiction at grade level text complexity or above, with scaffolding as needed. **LA.RF.3.3** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.

### ELA ANCHOR STANDARDS

Key Ideas and Details:

CCSS.ELA-LITERACY.RI.3.1

Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

CCSS.ELA-LITERACY.RI.3.2

Determine the main idea of a text; recount the key details and explain how they support the main idea.

CCSS.ELA-LITERACY.RI.3.3

Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

Craft and Structure:

CCSS.ELA-LITERACY.RI.3.4

Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area*.

CCSS.ELA-LITERACY.RI.3.5

Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.

CCSS.ELA-LITERACY.W.3.2

Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

CCSS.ELA-LITERACY.W.3.2.A

Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.

### 21<sup>st</sup> Century Skills (The ones that apply for this unit are in bold)

13. Creativity & Innovation

**14. Critical Thinking & Problem Solving**

**15. Communication & Collaboration**

16. Media Literacy

17. Information Literacy

18. Information, Communication & Technology

## 21<sup>st</sup> Century Themes (The ones that apply for this unit are in bold)

- 11. Global Awareness
- 12. Financial, Economic, Business and Entrepreneurial Literacy**
- 13. Civic Literacy
- 14. Health Literacy
- 15. Environmental Literacy

## Career Ready Practices and Career Education & Career Exploration

- CRP.K-12.CRP2 Apply appropriate academic and technical skills.
- CRP.K-12.CRP4 Communicate clearly and effectively and with reason.
- CRP.K-12.CRP8 Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP.K-12.CRP1 Act as a responsible and contributing citizen and employee.
- CRP.K-12.CRP12 Work productively in teams while using cultural global competence.

- 9.2.4.A.1 Identify reasons why people work, different types of work, and how work can help a person achieve personal and professional goals.
- 9.2.4.A.2 Identify various life roles and civic and work-related activities in the school, home, and community.
- 9.2.4.A.3 Investigate both traditional and nontraditional careers and relate information to personal likes and dislikes.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

**Exploration:** During this trimester students are able to roleplay different careers through pretend play such as being a teacher, fireman, or policeman. Students listen to read alouds that describe aspects of different careers. Students take turns having different classroom “jobs” such as line leader, lunch counter, timekeeper, materials distributor, publisher, editor, and weatherman for which they have specific duties and must take responsibility.

## Technology

- TECH.8.1.5.A.CS1  
Understand and use technology systems
- TECH.8.1.5.E.CS3  
Evaluate and select information sources and digital tools based on the appropriateness for specific tasks.
- TECH.8.1.5.A  
Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.
- TECH.8.1.5.A.4  
Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data.
- TECH.8.1.5.A.1  
Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
- TECH.8.1.5.A.CS2  
Select and use applications effectively and productively.

### **Technology Infusion: Students are able to understand and use technology systems**

Internet, Web Quests, content-related websites, wireless laptop computers, computer laboratory, classroom computers, and daily interaction with SMART Boards, CDs, DVDs, webinars, video streaming, and podcasting. Utilize programs on the iPad. Watch and interact with letter sound videos.

Observe and engage with SchoolTube videos. Use of books on tape and listening center. Use of Shutterfly, Share Site. Creation and publication of class created books.

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b> <b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Topic: Addition, Subtraction and the Number System</b>	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Goal 1:</b> The student will be able to utilize their understanding of the number system/place value to round, add, and subtract numbers to 1000.	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	1.1. Identify the position of a digit in a number and how it affects rounding to the nearest 10 or 100. (3.NBT.1)  1.2. Round numbers to the nearest 10 or 100 and explain when, why and how to do so. (3.NBT.1)  1.3. Read, write and sequence numbers to 1000. (3.NBT.1)  1.4. Represent a structure of three-digit numbers as being composed of 100s, 10s and 1s. (3.NBT.1)  1.5. Solve addition and subtraction problems with 2 and 3 digit numbers by	<b>Essential Questions:</b> How do you represent numbers? How does understanding place value help you solve double digit addition and subtractions problems? How do I recognize what strategy to use for a specific problem? What strategies do I use to find the sums or differences of whole numbers up to two and three digits long? How do I take apart and recombine numbers in a variety of ways for finding sums and differences?  <b>Conceptual Understandings:</b> The base ten numbers system is a “place value” system. There is meaning attached to the quantity the numerals of a number represent.  There is a relationship between 100s, 10s and 1s in the base ten number system.  Computational fluency involves the use of known combinations to solve more difficult problems.  Using mathematical tools helps to solve problems and represent solutions.  Two numbers added in either order yields the same sum	<b>Assessment Models:</b> Round to the nearest 10 and to the nearest 100 up to 1,000.  Solve addition word problems by using algorithms.  Demonstrate automaticity in all addition and subtraction facts.  Find sums and differences of numbers up to 1,000 using strategies (pictures, algorithms, number lines, numbers).  <b>Additional Information:</b> Students should use equivalencies among pennies, dimes, and dollars.  Students should be able to read, write, and sequence numbers to 1000.  Students should be exposed to word problems that include money including situations in which they must consider the amount of available money compared to multiple items cost to determine if you can make the purchase. Count change to include coins and dollars.

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Addition, Subtraction and the Number System</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 1:</b> The student will be able to utilize their understanding of the number system/place value to round, add, and subtract numbers to 1000.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	breaking numbers apart and recombining them (algorithms). (3.NBT.2)  1.6. Compute differences involving equations with a zero in the tens and/or hundreds place. (3.NBT.2)  1.7. Apply commutative and associative properties to fluently add and subtract within 1000. (3.NBT.2)  1.8. Make sense of problems and persevere in solving them. (MP.1)  1.9. Reason abstractly and quantitatively. (MP.2)  1.10. Construct viable arguments and critique the reasoning of others. (MP.3)	(commutative property).  Three numbers added together can be regrouped without changing the order and will yield the same sum (associative property).  There are a variety of strategies to solve addition and subtraction problems.	

Suggested days of Instruction	Curriculum Management System		<b>Topic: Addition, Subtraction and the Number System</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>		<b>Goal 1:</b> The student will be able to utilize their understanding of the number system/place value to round, add, and subtract numbers to 1000.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>	
	1.11. Model with mathematics. (MP.4)  1.12. Use appropriate tools strategically. (MP.5)  1.13. Attend to precision. (MP.6)  1.14. Look for and make use of structure. (MP.7)  1.15. Look for and express regularity in repeated reasoning. (MP.8)  1.16. Recognize a problem and brainstorm ways to solve the problem individually or collaboratively. (9.1.4.A.1)  1.17. Evaluate available resources that can assist in solving problems. (9.1.4.A.2)			

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b> <b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Topic: Addition, Subtraction and the Number System</b>		
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Goal 1:</b> The student will be able to utilize their understanding of the number system/place value to round, add, and subtract numbers to 1000.	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	1.18. Determine when the use of technology is appropriate to solve problems. (9.1.4.A.3)  1.19. Apply critical thinking and problem-solving skills in classroom settings. (9.1.4.A.5)  1.20. Participate in brainstorming sessions to seek information, ideas, and strategies that foster creative thinking. (9.1.4.B.1)  1.21. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in diferent settings. (9.1.4.C.1)			

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Multiplication and Division</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 2:</b> The student will be able to develop conceptual understanding of multiplication and division in order to fluently perform these operations.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>2.1. Identify the number of groups, the number in each group, and the product in multiplication. (3.OA.1)</p> <p>2.2. Use arrays to model multiplication situations. (3.OA.3)</p> <p>2.3. Break an array into parts to find the product represented by the array. (3.OA.3)</p> <p>2.4. Multiply one-digit numbers by multiples of ten with a focus on place value. (3.NBT.3)</p> <p>2.5. Fluently and accurately multiply two one-digit numbers. (3.OA.7)</p> <p>2.6. Determine the number of objects in each share when dividing. (3.OA.2)</p>	<p><b>Essential Questions:</b> How does knowing basic facts make problem solving easier? When and where does multiplication/division occur in real life? How is multiplication related to division? How can I show that I understand the meaning of multiplication and division?</p> <p><b>Conceptual Understandings:</b> When you multiply you are combining a number of equal groups and when you divide you are splitting a quantity into equal groups.</p> <p>Word problems tell what is known and what needs to be figured out.</p> <p>Different kinds of real world problems can be represented and solved using multiplication/division.</p> <p>Patterns and properties can help you remember multiplication facts.</p> <p>Patterns can help you when dividing.</p> <p>You can use multiplication facts you know to help you find the products for other facts.</p> <p>Division involves separating objects into equal groups.</p> <p>When you apply strategies to multiply and divide you use</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b></p> <p><b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b> Solve two-step word problems using the four operations, and represent these problems using equations with a letter standing for the unknown quantity.</p> <p>Assess the reasonableness of answers using a variety of strategies.</p> <p>Identify arithmetic patterns and explain them using properties of operations and complete the pattern.</p> <p>Find the product of two factors.</p> <p>Identify the number of groups, the number in each group and the product in a multiplication situation.</p> <p>Use arrays to model multiplication equations.</p> <p>Solve a multiplication word problem using arrays.</p>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Multiplication and Division</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 2:</b> The student will be able to develop conceptual understanding of multiplication and division in order to fluently perform these operations.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>2.7. Solve division equations as an unknown-factor problem. (3.OA.6)</p> <p>2.8. Use a variety of representations for solving one-step word problems for multiplication and division within 100. (3.OA.3)</p> <p>2.9. Interpret a problem situation requiring multiplication or division using pictures, objects, words, numbers and equations. (3.OA.3)</p> <p>2.10. Solve problems and determine unknowns in equations. (3.OA.4)</p> <p>2.11. Use the inverse relationship between multiplication and division to solve problems. (3.OA.7)</p> <p>2.12. Apply properties of operations (commutative,</p>	<p>the commutative, associative and distributive properties.</p> <p>Problem solving sometimes involves drawing conclusions to obtain information that is not given explicitly in the problem.</p>	<p>Break an array into equal parts to find the quotient.</p> <p>Solve a division word problem using arrays.</p> <p><b>Additional Resources:</b></p>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Multiplication and Division</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 2:</b> The student will be able to develop conceptual understanding of multiplication and division in order to fluently perform these operations.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	associative, distributive) in solving multiplication and division equations. (3.OA.5)  2.13. Solve two step word problems using all four operations, representing them by creating equations with a letter standing for the unknown quantity. (3.OA.8)  2.14. Determine the reasonableness of answers using mental math and estimation. (3.OA.8)  2.15. Identify arithmetic patterns. (3.OA.9)  2.16. Make sense of problems and persevere in solving them. (MP.1)  2.17. Reason abstractly and quantitatively. (MP.2)		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Multiplication and Division</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 2:</b> The student will be able to develop conceptual understanding of multiplication and division in order to fluently perform these operations.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>2.18. Construct viable arguments and critique the reasoning of others. (MP.3)</p> <p>2.19. Model with mathematics. (MP.4)</p> <p>2.20. Attend to precision. (MP.6)</p> <p>2.21. Look for and make use of structure. (MP.7)</p> <p>2.22. Recognize a problem and brainstorm ways to solve the problem individually or collaboratively. (9.1.4.A.1)</p> <p>2.23. Evaluate available resources that can assist in solving problems. (9.1.4.A.2)</p> <p>2.24. Determine when the use of technology is appropriate to solve problems. (9.1.4.A.3)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Multiplication and Division</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 2:</b> The student will be able to develop conceptual understanding of multiplication and division in order to fluently perform these operations.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>2.25. Apply critical thinking and problem-solving skills in classroom settings. (9.1.4.A.5)</p> <p>2.26. Participate in brainstorming sessions to seek information, ideas, and strategies that foster creative thinking. (9.1.4.B.1)</p> <p>2.27. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in diferent settings. (9.1.4.C.1)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Fractions</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 3:</b> The student will be able to create and identify fractional parts, make comparisons, and find equivalencies.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>3.1. Find equal parts of a whole and name them with fractions. (3.NF.1)</p> <p>3.2. Divide an area into equal parts. (3.NF.1)</p> <p>3.3. Name fraction parts with unit fractions (1/2, 1/3, 1/4, etc.). (3.NF.1)</p> <p>3.4. Order unit fractions on a number line. (3.NF.2)</p> <p>3.5. Partition a number line into equal parts. (3.NF.2.a, 3.NF.2.b)</p> <p>3.6. Demonstrate that an area can be divided into equal parts in a variety of ways resulting in different shaped pieces but are named by the same fraction the same fraction. (3.NF.3, 3.NF.3.a, 3.NF.3.b)</p>	<p><b>Essential Questions:</b> What are the parts of a fraction? What are fractions and how will I use them in real life? How are models used to show how fractional parts are combined or separated? How are numbers that represent fractional parts compared? How can models be used to compare fractions with like and unlike denominators?</p> <p><b>Conceptual Understandings:</b> Fractions represent equal parts of a whole.  A fraction represents a relationship between two numbers.  Different combinations of fractions are equivalent to other combinations or to the whole.  Fractions can represent quantities greater than one.</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b></p> <p><b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b> Write a fraction for the part of a circle that is white/shaded.  Complete a number line with missing fractions.  Find missing numbers to make an equivalent fraction.  Use circles to compare equivalent fractions.  Write a fraction for the shaded parts.  Compare two fractions as greater than, less than or equal (show a visual fractional model).</p> <p><b>Additional Information:</b> Students should identify equivalent fractions and decimals fro values involving halves and fourths (eg. <math>\frac{1}{2}=0.50</math>).</p>

Suggested days of Instruction	Curriculum Management System	<b>Topic: Fractions</b>	
	<u>Subject/Grade Level:</u> <b>Grade 3</b> <b>Mathematics</b>	<u>Goal 3:</u> The student will be able to create and identify fractional parts, make comparisons, and find equivalencies.	
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) <b>The student will be able to:</b>	Essential Questions, Conceptual Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
	<p>3.7. Name fractional parts that have numerators greater than 1 (<math>\frac{3}{4}</math>, <math>\frac{2}{3}</math>, <math>\frac{3}{6}</math>, etc.). (3.NF.1)</p> <p>3.8. Express whole numbers as fractions. (3.NF.3.c)</p> <p>3.9. Identify equivalent fractions (represented by picture and/or number line). (3.NF.3.b)</p> <p>3.10. Use fraction notation to record equivalencies (eg. <math>\frac{3}{6} = \frac{1}{2}</math>). (3.NF.3.b)</p> <p>3.11. Compare two fractions with the same numerator or the same denominator through reasoning about their size (when given the same whole). (3.NF.3.d)</p> <p>3.12. Make sense of problems and persevere in solving them.</p>		Students should read, write, and interpret the meaning of the decimal numbers 0.50, 0.25, and numbers greater than 1 with these decimal portions, such as 2.5 and 2.25.

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b> <u><b>Subject/Grade Level:</b></u> <b>Grade 3</b> <b>Mathematics</b>	<b>Topic: Fractions</b>	
		<u><b>Goal 3:</b></u> The student will be able to create and identify fractional parts, make comparisons, and find equivalencies.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	(MP.1)  3.13. Reason abstractly and quantitatively. (MP.2)  3.14. Construct viable arguments and critique the reasoning of others. (MP.3)  3.15. Model with mathematics. (MP.4)  3.16. Attend to precision. (MP.6)  3.17. Look for and make use of structure. (MP.7)  3.18. Look for and express regularity in repeated reasoning. (MP.8)  3.19. Recognize a problem and brainstorm ways to solve the problem individually or collaboratively.		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b> <u><b>Subject/Grade Level:</b></u> <b>Grade 3</b> <b>Mathematics</b>	<b>Topic: Fractions</b>	
		<u><b>Goal 3:</b></u> The student will be able to create and identify fractional parts, make comparisons, and find equivalencies.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>(9.1.4.A.1)</p> <p>3.20. Evaluate available resources that can assist in solving problems. (9.1.4.A.2)</p> <p>3.21. Determine when the use of technology is appropriate to solve problems. (9.1.4.A.3)</p> <p>3.22. Apply critical thinking and problem-solving skills in classroom settings. (9.1.4.A.5)</p> <p>3.23. Participate in brainstorming sessions to seek information, ideas, and strategies that foster creative thinking. (9.1.4.B.1)</p> <p>3.24. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in diferent settings. (9.1.4.C.1)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Geometry</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 4:</b> The student will be able to identify and classify figures based on their attributes with specific attention to quadrilaterals.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>4.1. Identify a polygon as a closed, plane figure made up of three or more line segments. (3.G.1)</p> <p>4.2. Identify the attributes of quadrilaterals: four sides, four vertices, four angles. (3.G.1)</p> <p>4.3. Compare the properties of squares, rectangles, and rhombuses. (3.G.1)</p> <p>4.4. Classify figures by their attributes, and certain types by their numbers of faces, edges, and corners. (3.G.1)</p> <p>4.5. Identify and draw examples of quadrilaterals that do not belong to any subcategory such as: trapezoid, parallelogram. (3.G.1)</p> <p>4.6. Draw a shape and partition</p>	<p><b>Essential Questions:</b> How can objects be represented and compared using geometric attributes? How can you identify and describe shapes? How do you divide a shape into equal parts and name the parts as a fraction?</p> <p><b>Conceptual Understandings:</b> Polygons can be described by their specific properties and named based on the number of sides and corners.  Shapes can be divided into equal parts.  Equal parts can be named as a fraction.</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b></p> <p><b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b> Identify various quadrilaterals.  Sort and categorize quadrilaterals based on specific properties.  Given a shape divide it into equal parts and name the parts as a fraction of a whole.</p> <p><b>Additional Resources:</b></p>

Suggested days of Instruction	Curriculum Management System	Topic: Geometry	
	<u>Subject/Grade Level:</u> Grade 3 Mathematics	<u>Goal 4:</u> The student will be able to identify and classify figures based on their attributes with specific attention to quadrilaterals.	
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Conceptual Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
	<p>into equal parts. (3.G.2)</p> <p>4.7. Describe the equal parts of the whole as a fraction. (3.G.2)</p> <p>4.8. Use appropriate tools strategically. (MP.5)</p> <p>4.9. Attend to precision. (MP.6)</p> <p>4.10. Look for and make use of structure. (MP.7)</p> <p>4.11. Recognize a problem and brainstorm ways to solve the problem individually or collaboratively. (9.1.4.A.1)</p> <p>4.12. Evaluate available resources that can assist in solving problems. (9.1.4.A.2)</p> <p>4.13. Determine when the use of</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Geometry</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 4:</b> The student will be able to identify and classify figures based on their attributes with specific attention to quadrilaterals.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>technology is appropriate to solve problems. (9.1.4.A.3)</p> <p>4.14. Apply critical thinking and problem-solving skills in classroom settings. (9.1.4.A.5)</p> <p>4.15. Participate in brainstorming sessions to seek information, ideas, and strategies that foster creative thinking. (9.1.4.B.1)</p> <p>4.16. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in diferent settings. (9.1.4.C.1)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Measurement and Data</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 5:</b> The student will be able to develop a conceptual understanding of perimeter and area, distinguish between the two measures, and calculate them accurately.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>5.1. Define area and utilize it as an attribute of plane figures. (3.MD.5, 3.MD.5.a, 3.MD.5.b)</p> <p>5.2. Find the area of an object by counting whole square units. (3.MD.6)</p> <p>5.3. Use the perimeter of a polygon to determine the length of unknown side.</p> <p>5.4. Design and tile a rectangle to determine a given area; understanding that this same area can be found by multiplying the side lengths. (3.MD.7.a)</p> <p>5.5. Apply the multiplying of side lengths of any given rectangle to determine its area. (3.MD.7.b)</p> <p>5.6. Use tiling to calculate the area of two given rectangles. (3.MD.7.c)</p>	<p><b>Essential Questions:</b> How do you use measurement in your life? What standard unit of measure do I use for area? How do you find an unknown side by measuring perimeter? How do we take a constructed figure and decompose it into separate rectangles to find the area?</p> <p><b>Conceptual Understandings:</b> Perimeter is a linear measurement to measure the distance around the outside edge of a 2-D figure.  Area is the amount of space a given object occupies.  Area is the measurement of square units occupying a space.  Understand that when measuring area, the space being measured must be completely covered with no gaps or overlaps.</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b></p> <p><b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b> Find the perimeter of a given shape.  Given the perimeter of a polygon find the length of unknown side.  Find the area of a rectilinear figure by breaking into smaller rectangles and adding the areas of the parts together.  Draw two rectangles with the same perimeter and different areas.  Draw two rectangles with the same area and different perimeters.</p> <p><b>Additional Information:</b> Students should use measurement tools to measure standard and metric length (inch, foot, yard, centimeter, meter) of a given shape.</p>

Suggested days of Instruction	Curriculum Management System	<b>Topic: Measurement and Data</b>	
	<u>Subject/Grade Level:</u> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 5:</b> The student will be able to develop a conceptual understanding of perimeter and area, distinguish between the two measures, and calculate them accurately.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>5.7. Combine these two rectangles; then find the area of this newly created rectangle; students will represent the area of this new rectangle using the distributive property. (3.MD.7.c)</p> <p>5.8. Decompose a rectilinear figure into different rectangles, then find the area of the figure by adding the areas of the rectangles together; application of this skill to real-world problems. (3.MD.7.d)</p> <p>5.9. Apply the understanding through real-world problems that rectangles with the same perimeter can have a different area. (3.MD.8)</p> <p>5.10. Apply the understanding through real-world problems that rectangles with the same area can have different perimeters. (3.MD.8)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Measurement and Data</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 5:</b> The student will be able to develop a conceptual understanding of perimeter and area, distinguish between the two measures, and calculate them accurately.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>5.11. Make sense of problems and persevere in solving them. (MP.1)</p> <p>5.12. Reason abstractly and quantitatively. (MP.2)</p> <p>5.13. Model with mathematics. (MP.4)</p> <p>5.14. Use appropriate tools strategically. (MP.5)</p> <p>5.15. Attend to precision. (MP.6)</p> <p>5.16. Look for and make use of structure. (MP.7)</p> <p>5.17. Recognize a problem and brainstorm ways to solve the problem individually or collaboratively. (9.1.4.A.1)</p>		

Suggested days of Instruction	Curriculum Management System	<b>Topic: Measurement and Data</b>	
	<u>Subject/Grade Level:</u> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 5:</b> The student will be able to develop a conceptual understanding of perimeter and area, distinguish between the two measures, and calculate them accurately.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>5.18. Evaluate available resources that can assist in solving problems. (9.1.4.A.2)</p> <p>5.19. Determine when the use of technology is appropriate to solve problems. (9.1.4.A.3)</p> <p>5.20. Apply critical thinking and problem-solving skills in classroom settings. (9.1.4.A.5)</p> <p>5.21. Participate in brainstorming sessions to seek information, ideas, and strategies that foster creative thinking. (9.1.4.B.1)</p> <p>5.22. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in diferent settings. (9.1.4.C.1)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b> <b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Topic: Measurement and Data</b>	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>6.1. Tell time to the minute and measure elapsed time both using clocks and number lines. (3.MD.1)</p> <p>6.2. Solve word problems related to time intervals. (3.MD.1)</p> <p>6.3. Estimate and measure liquid volumes and masses of objects using grams, kilograms, liters, pounds, and ounces. (3.MD.2)</p> <p>6.4. Solve word problems involving masses or volumes. (3.MD.2)</p> <p>6.5. Use a standard ruler to measure objects to the half and quarter marks. (3.MD.4)</p> <p>6.6. Organize categorical data in different ways to answer different questions.</p>	<p><b>Essential Questions:</b>  How can I measure time using a number line?  How do I know which tool to use to measure volume, mass and length of an object?  Why do you collect data?  How does the type of data influence the choice of graph?  How do charts, tables, and graphs help you interpret data?</p> <p><b>Conceptual Understandings:</b>  Data is collected in a context and for a purpose.   Organizing categorical data in different ways answers different questions.   Comparing provides a reason for describing and collecting data.</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b></p> <p><b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b>  Tell time to the minute (clock, number line).   Find the elapsed time (clock, number line).   Solve word problems involving intervals of time.   Read and find the liquid volume of given container (liters).   Read and find the mass of a given object (grams, kilograms, ounces, pounds).   Solve word problems involving mass and volume.   Identify and read half and quarter marks on a standard ruler.   Classify and organize given data.   Create charts, tables, bar graphs using data.</p>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Measurement and Data</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 6:</b> The student will be able to tell time to the minute and determine elapsed time. The student will be able to utilize various forms of measurement to find volume, mass and length.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>(3.MD.3, 3.MD.4)</p> <p>6.7. Describe and interpret categorical data. (3.MD.3, 3.MD.4)</p> <p>6.8. Draw and interpret a picture, circle or bar graph. (3.MD.3)</p> <p>6.9. Solve one and two step how many more, how many less problems using information in the graph. (3.MD.3)</p> <p>6.10. Use a line plot marked off in whole numbers, halves or quarters. (3.MD.3, 3.MD.4)</p> <p>6.11. Interpret what the numbers and symbols on a line plot mean. (3.MD.3, 3.MD.4)</p> <p>6.12. Make sense of problems and persevere in solving them. (MP.1)</p>		<p>Solve problems interpreting data as a whole (how many more/how many less).</p> <p>Identify and interpret what the numbers on the line plot mean in whole numbers, halves and quarters.</p> <p>Represent data by creating a line plot marked off in whole numbers, halves and quarters.</p> <p><b>Additional Resources:</b></p>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Measurement and Data</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 6:</b> The student will be able to tell time to the minute and determine elapsed time. The student will be able to utilize various forms of measurement to find volume, mass and length.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	6.13. Reason abstractly and quantitatively. (MP.2)  6.14. Model with mathematics. (MP.4)  6.15. Use appropriate tools strategically. (MP.5)  6.16. Attend to precision. (MP.6)  6.17. Look for and make use of structure. (MP.7)  6.18. Recognize a problem and brainstorm ways to solve the problem individually or collaboratively. (9.1.4.A.1)  6.19. Evaluate available resources that can assist in solving problems. (9.1.4.A.2)		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Measurement and Data</b>	
	<b>Subject/Grade Level:</b> <b>Grade 3</b> <b>Mathematics</b>	<b>Goal 6:</b> The student will be able to tell time to the minute and determine elapsed time. The student will be able to utilize various forms of measurement to find volume, mass and length.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>6.20. Determine when the use of technology is appropriate to solve problems. (9.1.4.A.3)</p> <p>6.21. Apply critical thinking and problem-solving skills in classroom settings. (9.1.4.A.5)</p> <p>6.22. Participate in brainstorming sessions to seek information, ideas, and strategies that foster creative thinking. (9.1.4.B.1)</p> <p>6.23. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in diferent settings. (9.1.4.C.1)</p>		

