Englewood Public School District Mathematics Grade 4 Fourth Marking Period

Unit - Fluency and In-depth Review

Overview: During this unit, students will review the year's content and continue to hone their understanding of area and perimeter, symmetry and decimals.

Time Frame: Chapter – Chapter 12 - 15 days, Chapter 13 - 12 days, Chapter 8 - 10 days or Review of Fluency and In-depth Standards (Pacing includes 1 day for Chapter Opener pages if needed.)

Enduring Understandings:

Area and perimeter of a square, rectangle, or composite figure can be found by counting squares or using a formula.

Objects have distinct attributes that can be measured.

Figures can have line and rotational symmetry.

Decimals can be added and subtracted in the same way as whole numbers.

Essential Questions:

Why is it important to know how to find area and perimeter?

How can you measure a given object?

What can you see that has a line of symmetry?

How are decimals and fractions alike and how are they different?

Why is it important to know how to add and subtract decimals?

Standards	Topics and Objectives	Activities	Resources	Assessments
Chapter 12				
4.NBT.B.4. Fluently add and	Topics	Students will discuss how	SE-4B: 152-193	Unit 4 Benchmark
subtract multi-digit whole		knowing area and	Workbook 4B: 93-122	Assessment:
numbers using the standard	Finding the area and	perimeter can help them in		 Exact Path
algorithm.	perimeter of a figure by	everyday life, including	Common Core Focus	
	counting squares or using a	future careers. (9.2.4.A.4)	Lesson Appendix	Formative Assessments:
4.MD.A.1. Know relative	formula.		Lessons 12.0a, 12.0c, 12.0d	 Do Now
sizes of measurement units		Math Playground		 Exit Ticket
within one system of units	Twenty-First Century	http://www.mathplaygrou	Think Central: Online	 Math Journal

including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36).

4.MD.A.2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

4.MD.A.3. Apply the area and perimeter formulas for rectangles in real world and

Themes and Skills include:

- <u>Creativity and</u> Innovation
- Critical Thinking and Problem Solving Communication and Collaboration

Objectives

The students will be able to:

- Estimate the area of a rectangle by counting grid squares.
- Find the area of rectangle using a formula.
- Find the perimeter and area of a composite figure.
- Solve word problems involving estimating area of figures.
- Solve word problems involving area and perimeter of composite figures.

nd.com/

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

Math Wire – Basic Facts Link http://mathwire.com/nu mbersense/bfactslinks.ht ml

Math Fact Practice http://www.playkidsgam es.com/games/mathfact/ mathFact.htm

Critical Thinking and Problem Solving p.188-189:

Put on Your Thinking Cap!

10 hands on strategies for teaching area and perimeter:

https://www.scholastic.co m/teachers/blogposts/genia-connell/10hands-strategies-teachingarea-and-perimeter/

Area of a rectangle – free lesson and video: https://www.homeschool math.net/teaching/g/area.p

access to all Math in Focus materials listed above and Virtual Manipulatives

Professional Resources:

The Model Method from the Ministry of Education Singapore and Bar Modeling: A Bar Modeling Tool by Yeap Ban Har, PhD.

Lesson and Component Walkthrough:www.hmhelearning.com

Technology Resources

- Math in Focus eBooks
- Math in Focus Teacher Resources CD

Arizona Flip Book – Gr 4 http://www.tusd1.org/resourc es/curriculum/math/4flipboo kedited.pdf

North Carolina Dept of Ed. Wikispaces:

http://maccss.ncdpi.wikispac es.net/Elementary

Standards Solution
Lessons:
PARCC Lesson 17 –
Practice PARCC Type I
Geometry

4th grade worksheets: https://www.k5learning.com/ Entries (CRP4)

- Math notebook (NJSLSA.W2.)
- Calendar skills
- Observations
- Discussions: in groups, have students explain different ways of solving problems (CRP4)
- Multiple choice / short answer assessments

Summative Assessments:

Math in Focus Assessments

Chapter Review/Test – pp 192-193

Assessments 4 – pp.106-110

ExamView Assessment Suite – Test and Practice Generator

Alternative Assessments:

Learning centers: each learning center focuses on a different type of problem

Working in groups, give

mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

4.OA.A.3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. 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.

Mathematical Practices MP.1, MP.2, MP.3, MP.5, MP.6, MP.7, MP.8 <u>hp</u>

Children's books:

https://www.the-bestchildrens-books.org/mathfor-kids.html

More additional texts:

www.newsela.com www.readworks.org www.commonlit.org <u>free-math-worksheets/fourth-grade-4</u> (CRP2, CRP4, CRP8, 8.1.5.A.1)

students posters with composite shapes and have them find the area and perimeter

4th grade worksheets, games, lessons, activities, online exercises: https://www.education.com/r esources/fourth-grade/ (CRP2, CRP4, CRP8, 8.1.5.A.1)

4th grade videos, games interactive, assessments, lessons, homework and audio (select from drop down menu):

https://www.opened.com/sea rch?area=mathematics&grad e=4&offset=0&resource_typ e=interactive-assessment (CRP2, CRP4, CRP8, 8.1.5.A.1)

4th grade Common Core worksheets:

https://www.ixl.com/math/gr ade-4 (CRP2, CRP4, CRP8, 8.1.5.A.1)

Khan Academy – videos, lessons, assessments www.khanacademy.org

Chapter 13

4.G.A.3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify linesymmetric figures and draw lines of symmetry.

4.OA.C.5. Generate a number or shape pattern that follows a given rule. **Identify apparent features** of the pattern that were not explicit in the rule itself. For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.

Mathematical Practices MP.1, MP.3, MP.6, MP.7

Topics

Understanding line symmetry and rotational symmetry and making symmetric shapes and patterns.

Twenty-First Century
Themes and Skills include:

- <u>Creativity and</u> Innovation
- <u>Critical Thinking and</u> Problem Solving
- <u>Communication and</u> Collaboration

Objectives

The students will be able to:

- Identify a line of symmetry of a figure.
- Relate rotational symmetry to turns.
- Trace a figure to determine whether it has rotational symmetry.
- Draw a shape or pattern about a line of symmetry and check for rotational

4.G.A.3 Finding Lines of Symmetry

4.G.A.3 Lines of symmetry for triangles

Math Playground

http://www.mathplayground.com/

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

Math Wire – Basic Facts Link http://mathwire.com/nu mbersense/bfactslinks.ht ml

Math Fact Practice http://www.playkidsgam es.com/games/mathfact/ mathFact.htm

Critical Thinking and Problem Solving p.213-214: Put on Your Thinking Cap!

SE-4B: 197-217

Workbook 4B: 123-132

Common Core Focus Lesson Appendix

Think Central: Online access to all Math in Focus materials listed above and Virtual Manipulatives

Professional Resources:

The Model Method from the Ministry of Education Singapore and Bar Modeling: A Bar Modeling Tool by Yeap Ban Har, PhD.

Lesson and Component Walkthrough:

www.hmhelearning.com

Technology Resources

- Math in Focus eBooks
- Math in Focus Teacher Resources CD

Arizona Flip Book – Gr 4

http://www.tusd1.org/resourc es/curriculum/math/4flipboo kedited.pdf

Formative Assessments:

- Do Now
- Exit Ticket
- Math Journal Entries (CRP4)
- Math notebook (NJSLSA.W2.)
- Calendar skills
- Observations
- Discussions: in groups, have students explain different ways of solving problems (CRP4)
- Multiple choice / short answer assessments

Summative Assessments:

Math in Focus Assessments

Chapter Review/Test – pp 216-217

Assessments 4 – pp.113-117

ExamView Assessment Suite – Test and Practice

- symmetry.
- Complete a symmetric shape or pattern.
- Create symmetric patterns on grid paper.

Folding and cutting, reflecting in lines, line symmetry templates (with answer keys):

https://www.mathsalamanders.com/symmetr y-activities.html (RI.4.7, RI.4.4)

Children's books:

https://www.the-bestchildrens-books.org/mathfor-kids.html

More additional texts:

www.newsela.com www.readworks.org www.commonlit.org North Carolina Dept of Ed. Wikispaces:

http://maccss.ncdpi.wikispaces.net/Elementary

Standards Solution Lessons: CCSS Losson Plan: Li

CCSS Lesson Plan: Lines of Symmetry

4th grade worksheets:

https://www.k5learning.com/ free-math-worksheets/fourthgrade-4 (CRP2, CRP4, CRP8, 8.1.5.A.1)

4th grade worksheets, games, lessons, activities, online exercises:

https://www.education.com/r esources/fourth-grade/ (CRP2, CRP4, CRP8, 8.1.5.A.1)

4th grade videos, games interactive, assessments, lessons, homework and audio (select from drop down menu):

https://www.opened.com/sea rch?area=mathematics&grad e=4&offset=0&resource_typ e=interactive-assessment (CRP2, CRP4, CRP8, 8.1.5.A.1)

4th grade Common Core

Generator

Alternative Assessments:

Learning centers: each learning center focuses on a different type of problem

WOP	zeh	eets:
W ()1	\mathbf{r}	

https://www.ixl.com/math/gr ade-4 (CRP2, CRP4, CRP8, 8.1.5.A.1)

Khan Academy – videos, lessons, assessments www.khanacademy.org

Chapter 8

4.NBT.A.1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.

4.NBT.A.2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

4.NBT.B.4. Fluently add and subtract multi-digit whole numbers using the standard

Topics

Adding and subtracting decimals.

Twenty-First Century
Themes and Skills include:

- Creativity and Innovation
- <u>Critical Thinking and</u> Problem Solving
- <u>Communication and</u> Collaboration

Objectives

The students will be able to:

- Add decimals up to two decimal places.
- Subtract decimals up to two decimal places.
- Solve real-world problems involving addition and subtraction of decimals.

4.MD.A.2 Margie Buys Apples

Math Playground http://www.mathplaygrou nd.com/

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

Math Wire – Basic Facts Link http://mathwire.com/nu mbersense/bfactslinks.ht ml

Math Fact Practice http://www.playkidsgam es.com/games/mathfact/ mathFact.htm **SE-4B:** 56-79

Workbook 4B: 21-36

Common Core Focus Lesson Appendix

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Lesson and Component Walkthrough: www.hmhelearning.com

Technology Resources

• Math in Focus eBooks

Formative Assessments:

- Do Now
- Exit Ticket
- Math Journal Entries (CRP4)
- Math notebook (NJSLSA.W2.)
- Calendar skills
- Observations
- Discussions: in groups, have students explain different ways of solving problems (CRP4)
- Multiple choice / short answer assessments

Summative Assessments:

Math in Focus Assessments algorithm.

4.MD.A.1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36).

4.MD.A.2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement

Critical Thinking and Problem Solving p.76: Put on Your Thinking Cap!

Adding and subtracting decimals lesson:

https://betterlesson.com/lesson/575046/adding-and-subtracting-decimals(CRP2)

Adding decimals worksheet:

https://www.superteacher worksheets.com/decimals/ decimal-additiontenths_BOXES.pdf?up=1 466611200 (CRP2)

Children's books:

https://www.the-best-childrens-books.org/math-for-kids.html

More additional texts:

www.newsela.com www.readworks.org www.commonlit.org • Math in Focus Teacher Resources CD

Arizona Flip Book – Gr 4 http://www.tusd1.org/resourc es/curriculum/math/4flipboo kedited.pdf

North Carolina Dept of Ed. Wikispaces:

http://maccss.ncdpi.wikispaces.net/Elementary

4th grade worksheets:

https://www.k5learning.com/ free-math-worksheets/fourthgrade-4 (CRP2, CRP4, CRP8, 8.1.5.A.1)

4th grade worksheets, games, lessons, activities, online exercises:

https://www.education.com/r esources/fourth-grade/ (CRP2, CRP4, CRP8, 8.1.5.A.1)

4th grade videos, games interactive, assessments, lessons, homework and audio (select from drop down menu):

https://www.opened.com/sea rch?area=mathematics&grad e=4&offset=0&resource_typ e=interactive-assessment (CRP2, CRP4, CRP8, Chapter Review/Test – pp 78-79

Assessments 4 - pp. 66-68

ExamView Assessment Suite – Test and Practice Generator

Alternative Assessments:

Learning centers: each learning center focuses on a different type of problem scale.

4.OA.A.3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. 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.

4.NF.C.5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express 3/10 as 30/100, and add 3/10 + 4/100=34/100. (Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. **But addition and** subtraction with unlike denominators in general is not a requirement at this

8.1.5.A.1)

4th grade Common Core worksheets:

https://www.ixl.com/math/gr ade-4 (CRP2, CRP4, CRP8, 8.1.5.A.1)

Khan Academy – videos, lessons, assessments www.khanacademy.org Mathematical Practices MP.1, MP.4, MP.7, MP.8

Review of Gr. 4 Standards, Fluency and In-Depth Focus

Fluency:

4.NBT.4 Students fluently add and subtract multi-digit whole numbers using the standard algorithm.

In-depth Focus:

4.NBT.B.5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

4.NBT.B.6. Find wholenumber quotients and remainders with up to fourdigit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by

Examples of Opportunities for In-Depth Focus:

4.NBT.5 When students work toward meeting this standard, they combine prior understanding of multiplication with deepening understanding of the base-ten system of units to express the product of two multi-digit numbers as another multi-digit number. This work will continue in grade 5 and culminate in fluency with the standard algorithms in grade 6.

4.NBT.6 When students work toward meeting this standard, they combine prior understanding of multiplication and division with deepening understanding of the base-ten system of units to find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors. This work will

Math Playground

 $\frac{http://www.mathplaygrou}{nd.com/}$

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

Math Wire – Basic Facts Link http://mathwire.com/nu mbersense/bfactslinks.ht ml

Math Fact Practice http://www.playkidsgam es.com/games/mathfact/ mathFact.htm

Children's books:

https://www.the-bestchildrens-books.org/mathfor-kids.html

More additional texts:

www.newsela.com www.readworks.org www.commonlit.org

Common Core Focus Lesson Appendix

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Professional Resources:

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Lesson and Component Walkthrough:

www.hmhelearning.com

Technology Resources

- Math in Focus eBooks
- Math in Focus Teacher Resources CD

Arizona Flip Book:

http://www.azed.gov/azcom moncore/files/2012/11/3flipb ookedited_2.pdf

North Carolina Dept of Ed.

Formative Assessments:

- Do Now
- Exit Ticket
- Math Journal Entries (CRP4)
- Math notebook (NJSLSA.W2.)
- Calendar skills
- Observations
- Discussions: in groups, have students explain different ways of solving problems (CRP4)
- Multiple choice / short answer assessments

Summative Assessments:

Math in Focus Assessments

ExamView Assessment Suite – Test and Practice Generator

Alternative Assessments: Learning centers: each using equations, rectangular arrays, and/or area models.

4.NF.A.1. Explain why a fraction a/b is equivalent to a fraction (n x a)/(n x b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.

4.NF.B.3. Understand a fraction a/b with a > 1 as a sum of fractions 1/b.

- a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
- b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model.

Examples: 3/8=1/8+1/8+1/8; 3/8=1/8+2/8; 2 1/8=1 + 1+1/8=8/8+8/8 +1/8. develop further in grade 5 and culminate in fluency with the standard algorithms in grade 6.

4.NF.1 Extending fraction equivalence to the general case is necessary to extend arithmetic from whole numbers to fractions and decimals.

4.NF.3 This standard represents an important step in the multi-grade progression for addition and subtraction of fractions. Students extend their prior understanding of addition and subtraction to add and subtract fractions with like denominators by thinking of adding or subtracting so many unit fractions.

4.NF.4 This standard represents an important step in the multi-grade progression for multiplication and division of fractions. Students extend their developing understanding of multiplication to multiply a fraction by a whole number.

Twenty-First Century
Themes and Skills include:

Wikispaces:

http://maccss.ncdpi.wikispaces.net/Elementary

learning center focuses on a different type of problem

4th grade worksheets:

https://www.k5learning.com/ free-math-worksheets/fourthgrade-4 (CRP2, CRP4, CRP8, 8.1.5.A.1)

4th grade worksheets, games, lessons, activities, online exercises: https://www.education.com/r esources/fourth-grade/ (CRP2, CRP4, CRP8, 8.1.5.A.1)

4th grade videos, games interactive, assessments, lessons, homework and audio (select from drop down menu):

https://www.opened.com/sea rch?area=mathematics&grad e=4&offset=0&resource_typ e=interactive-assessment (CRP2, CRP4, CRP8, 8.1.5.A.1)

4th grade Common Core worksheets:

https://www.ixl.com/math/gr ade-4 (CRP2, CRP4, CRP8)

Khan Academy - videos,

- c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
- d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
- **4.NF.B.4.** Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
- a. Understand a fraction a/b as a multiple of 1/b. For example, use a visual fraction model to represent 5/4 as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.
- b. Understand a multiple of a/b as a multiple of 1/b,

- <u>Creativity and</u> Innovation
- <u>Critical Thinking and</u> <u>Problem Solving</u>
- Communication and Collaboration

lessons, assessments www.khanacademy.org

and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as 6/5. (In general, $n \times (a/b) = (n \times a)/b$.)

c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?

Key Vocabulary:

Chapter 12:

length, width, composite figure

Chapter 13:

line of symmetry, symmetric figure, rotation, rotational symmetry, center of rotation, clockwise, counter-clockwise

Chapter 8: no new vocabulary

NJ Learning Standards Vocabulary:

4.NBT.A.1 & 2

Generalize place value understanding for multi-digit whole numbers. place value, greater than, less than, equal to, <, >, =, comparisons/compare, round

4.NBT.B.4

Use place Value understanding and properties of operations to perform multi-digit arithmetic. add, addend, sum, subtract

4.OA.A. 3

Use the four operations with whole numbers to solve problems.

multiplication/multiply, division/divide, dividend, divisor, addition/add, subtraction/subtract, equations, unknown, remainders, reasonableness, mental computation, estimation, rounding

4.OA.C.5

Generate and analyze patterns. pattern (number or shape), pattern rule

4.NF.C.5

Understand decimal notation for fractions, and compare decimal fractions. fraction, numerator, denominator, equivalent, reasoning, decimals, tenths, hundreds, multiplication

4.MD.A.1, 2 & 3

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

measure, metric, customary, convert/conversion, relative size, liquid volume, mass, length, distance, kilometer (km), meter (m), centimeter (cm), kilogram (kg), gram (g), liter (L), milliliter (mL), inch (in), foot (ft), yard (yd), mile (mi), ounce (oz), pound (lb), cup (c), pint (pt), quart (qt), gallon (gal), time, a.m., p.m., clockwise, counter clockwise, hour, minute, second, equivalent, operations, add, subtract, multiply, divide, fractions, decimals, area, perimeter

4.G.A. 3

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

line of symmetry, symmetric figures, two dimensional, regular and irregular

From previous grades: polygon, rhombus/rhombi, rectangle, square, triangle, quadrilateral, pentagon, hexagon, cube, trapezoid, half/quarter circle, circle, cone, cylinder, sphere

Accommodations and Modifications:

Students with special needs: Support staff will be available to aid students related to IEP specifications. 504 accommodations will also be attended

to by all instructional leaders. Modifications, alternative assessments, and scaffolding strategies will be used to support this learning. The use of Universal Design for Learning (UDL) will be considered for all students as teaching strategies are considered. Additional staff should be included so all students can fully participate in the standards associated with this curriculum.

ELL/ESL students: Students will be supported according to the recommendations for "can do's" as outlined by WIDA - https://www.wida.us/standards/CAN_DOs/

Students at risk of school failure: Formative and summative data will be used to monitor student success at first signs of failure. Student work will be reviewed to determine support. This may include parent consultation, basic skills review and differentiation strategies. With considerations to UDL, time may be a factor in overcoming developmental considerations. More time will be made available with a certified instructor to aid students in reaching the standards.

Gifted and Talented Students: Students excelling in mastery of standards will be challenged with complex, high level challenges.

English Language Learners:

- Track participation to encourage speaking
- Teaching modeling
- Peer modeling
- Word walls
- Give directions in small steps and in as few words as possible
- Provide visual aids
- Group similar problems together
- Repeat directions when necessary
- Provide a vocabulary list with definitions

Special Education:

- Shorten assignments to focus on mastery or key concepts
- Utilize modifications & accommodations delineated in the students' IEP
- Work with paraprofessional
- Work with a partner
- Maintain adequate space between desks
- Keep workspaces clear of unrelated materials
- Provide fewer problems to attain passing grades
- Tape a number line to the student's desk
- Create a math journal that they can use during class, on assignments and (if teacher allows) on assessments
- Provide extra time to

At-Risk:

- Use visual demonstrations, illustrations and models
- Give directions / instructions verbally and in simple written format
- Peer support
- Increased one on one time
- Teachers may modify instructions by modeling what the student is expected to do
- Instructions may be printed out in large print and hung up for the students to see during the time of the lesson
- Review behavior expectations and make adjustments
- Create a math journal that they can use during class,

Gifted and Talented:

- Research careers that use geometry and share with class
- Inquiry based instruction
- Independent study
- Higher order thinking skills
- Adjusting the pace of the lessons
- Real world scenarios
- Student driven instruction
- Allow students to complete an independent project as an alternative test

complete a task when needed Provide definitions of different graphs / charts with illustrations Allow tests to be taken in a separate room Allow students to use a calculator when appropriate Divide test into small sections of similar questions or problems	on assignments and (if teacher allows) on assessments • Allow students to complete an independent project as an alternative test
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Interdisciplinary Connections: ELA

NJSLSA.R1. Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

- RI.4.4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area
- **RI.4.5**. Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text
- **RI.4.7.** Interpret information presented visually, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears

NJSLSA.W2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

NJSLSA.L1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

- **SL.4.3**. Identify the reasons and evidence a speaker provides to support particular points.
- **SL.4.6.** Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation.

Integration of Technology Standards NJSLS:

8.1.5.A.1: Select and use the appropriate digital tools and resources to accomplish a variety of tasks including problem solving

21st Century Standards

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

Career Ready Practices:

CRP2: Apply appropriate academic and technical skills

CRP4: Communicate clearly and effectively and with reason

CRP6: Demonstrate creativity and innovation

CRP8: Utilize critical thinking to make sense of problems and persevere in solving them

Major Supporting Additional (Identified by PARCC Model Content Frameworks)