








Marking Period	Unit Title	Recommended Instructional Days
3	Two-Dimensional Figures	7 - 9 Days
Domain		
<p><i>Strand:</i></p> <ul style="list-style-type: none">  4.OA.C.5 Generate and analyze patterns. 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.  4.G.A.1 Draw and identify lines and angles, and classify shapes by properties of their lines and angles. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.  4.G.A.2 Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.  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 line-symmetric figures and draw lines of symmetry. <p>Key:</p> <div style="display: flex; align-items: center; gap: 20px;"> <div style="display: flex; align-items: center;">  Major Cluster </div> <div style="display: flex; align-items: center;">  Supporting Cluster </div> <div style="display: flex; align-items: center;">  Additional Cluster </div> </div>		
<p>Progress Indicator: ◊ Tests ◊ Homework / Classwork ◊ Projects ◊ Formative assessments ◊ Summative assessments</p>		

Mathematical Practices:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reason of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Recommended Activities, Investigations, Interdisciplinary Connections, and/or Student Experiences to Explore NJSL-CLKS within Unit

Essential Questions:

Lesson 10.1 How can you identify and draw points, lines, line segments, rays, and angles?

Lesson 10.2 How can you classify triangles by the size of their angles?

Lesson 10.3 How can you identify and draw parallel lines and perpendicular lines?

Lesson 10.4 How can you sort and classify quadrilaterals?

Lesson 10.5 How can you check if a shape has line symmetry?

Lesson 10.6 How do you find lines of symmetry?

Lesson 10.7 How can you use the strategy, *act it out*, to solve pattern problems?

Essential Understandings:

Lesson 10.1 Identify and draw points, lines, line segments, rays, and angles.

Lesson 10.2 Classify triangles by the size of their angles.

Lesson 10.3 Identify and draw parallel lines and perpendicular lines.

Lesson 10.4 Sort and classify quadrilaterals.

Lesson 10.5 Determine whether a figure has a line of symmetry.

Lesson 10.6 Identify and draw lines of symmetry in two-dimensional figures.

Lesson 10.7 Use the strategy, *act it out*, to solve pattern problems.

Vocabulary:

- Acute

- Angle
- Intersecting Lines
- Line
- Line of Symmetry
- Line Segment
- Obtuse Angle
- Parallel Lines
- Parallelogram
- Perpendicular Lines
- Point
- Rectangle
- Rhombus
- Right Angle
- Square
- Straight Angle
- Trapezoid

Suggested Activity Description(s):

Show what you know, Problem of the Day, Fluency Builders, Personal Math Trainer, Math on the Spot Videos, Real World Videos, Vocabulary Preview Activity, Reteach and Enrichment Activities, Interactive Student Edition Textbook, RtI Activities, Grab and Go Differentiated Centers, Journal Writing, Advanced Learners Activities, Assessments, Standards Focus Packets for the related NJSL, Success for English Learners Activities, Performance Task

◇ **Suggested Sample Tasks:**

Interdisciplinary Connections:

STEM Activity: Math plays an important part in the development and understanding of various science concepts and process skills. Many of the math concepts and skills students have learned can be applied to any one of a number of science topics making the science more meaningful. Help students make the connection between math and science through the S.T.E.M. activities and activity worksheets found at Think Central.

Students connect math and science with the S.T.E.M. Activity You Have a Solution and the accompanying worksheets (pages 121 and 122). Through this S.T.E.M. Activity, students will connect to the GO Math! concepts and skills with various chemistry concepts, including calculations with measurements of different substances that form a solution. It is recommended that this S.T.E.M. Activity be used after lesson 10.1.

Science:

Materials: paper circles

Lake DeFuniak in Florida is one of only two naturally round lakes in the world. Draw a circle on the board. Instruct students to draw two lines of

symmetry on the circle. Discuss how lines of symmetry for a circle are different from the lines of symmetry for polygons.

Social Studies:

Materials: origami books and paper

Origami is the Japanese art of paper folding. The word origami comes from *oru* meaning “folding” and *kami* meaning “paper.” The Children’s Peace Monument in Hiroshima, Japan, is a monument to world peace. Every year about 10 million origami paper cranes, a symbol of peace, arrive from all over the world to be placed at the monument. Artists can make origami figures by folding a single piece of paper, without using scissors or glue. One of the most famous origami designs is the paper crane. Pick a design you would like to make. As you fold to create your design, identify the symmetry you see in the shapes you create along the way to your final design.

Language Arts:

1. Vocabulary Preview Activity, Go Math pg. 548
2. Vocabulary Game, Go Math pg.548 A
3. The Write Way, Go Math pg. 548 B

Spot Light On: *Use random response strategies.*

Social and Emotional Learning: <i>Competencies</i>	Social and Emotional Learning: <i>Sub-Competencies</i>
<p>SEL Competencies:</p> <ul style="list-style-type: none"> • Self- awareness • Social Awareness • Self- Management • Relationship Skills • Responsible Decision-Making 	<ul style="list-style-type: none"> • Recognizing the importance of self-confidence in handling daily tasks and challenges. • Demonstrate an awareness of the expectations for social interactions in a variety of ways. • Demonstrate an understanding of the need for mutual respect when viewpoints differ. • Identify and apply ways to persevere through alternative methods to achieve goals. • Utilize positive communication and social skills to interact effectively with others. • Develop, implement, and model effective problem solving and critical thinking skills.

Grade 4 Mathematics
Unit 10: Two-Dimensional Figures

September
2022

Assessments (Formative) <i>To show evidence of meeting the standard/s, students will successfully engage within:</i>		Assessments (Summative) <i>To show evidence of meeting the standard/s, students will successfully complete:</i>	
Formative Assessments: • Teacher Observations • Exit Tickets • Quizzes • Self Assessments • Math Journals • Homework/Classwork • Teacher created assessments		Benchmarks & Summative Assessments: Chapter/Unit Assessments • Standardized Tests • District Assessments • Project-based Assessments	
Differentiated Student Access to Content: Teaching and Learning <i>Resources/Materials</i>			
Core Resources	Alternate Core Resources <i>IEP/504/At-Risk/ESL</i>	ELL Core Resources	Gifted & Talented Core Resources
Go Math Workbook, IXL, Personal Math Trainer, Math on the Spot Videos, My HRW, Khan Academy, Illustrative Mathematics, Learn360, TeacherTube, BrainPOP, Freckle, LearnZillion, MobyMax, 60 minutes of weekly ST Math, Edulastic, Achieve the Core, Desmos	Reteaching worksheets, Skill building workbook, Math manipulatives, Leveled practice worksheets	Dictionary for native language, Video tutorial in native language, Success for English Learners worksheets, Go Math Leveled Strategies for English Learners, Go Math Linguistic Support	ST Math Challenge Objectives, G&T tasks, Enrichment worksheets, Art of Problem Solving, Leveled assessments, Go Math Teaching for Depth
Supplemental Resources			
Technology: • Chromebooks • Online math manipulatives Other: • Google Classroom, Google Meets, Schoology, Interactive Workbooks • Illustrative Mathematics • insidemathematics.org • National Library of Virtual Manipulatives			

Differentiated Student Access to Content: Recommended <i>Strategies & Techniques</i>			
Core Resources	Alternate Core Resources <i>IEP/504/At-Risk/ESL</i>	ELL Core Resources	Gifted & Talented Core
Deliver instruction utilizing varied learning styles including audio, visual, and tactile/kinesthetic, provide individual instruction as needed, modify assessments and/or rubrics.	Utilize a multi-sensory (VAKT) approach during instruction, provide alternate presentations of skills by varying the method (repetition, simple explanations, additional examples, modeling, etc.), modify test content and/or format, allow students to retake test for additional credit, provide additional times and preferential seating as needed, review, restate and repeat directions, provide study guides, and/or break assignments into segments of shorter tasks.	Extend time requirements, preferred seating, positive reinforcement, check often for understanding/review, oral/visual directions/prompts when necessary, supplemental materials including use of an online bilingual dictionary, and modified assessment and/or rubric.	Create an enhanced set of introductory activities, integrate active teaching/learning opportunities, incorporate authentic components, propose interest-based extension activities, and connect students to related content.

NJSLS CAREER READINESS, LIFE LITERACIES & KEY SKILLS	Disciplinary Concept(s): Work Productively in Teams	
	Core Ideas:	Curiosity and willingness to try new ideas (intellectual risk taking) contributes to the development of creativity and innovation.
	Performance Expectation/s:	9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one’s thinking about a topic of curiosity.
	Career Readiness, Life Literacies, & Key Skills Practices	
	Act as a responsible and contributing community member and employee.	

	<p>Attend to financial well-being. Consider the environmental, social and economic impacts of decisions. Demonstrate creativity and innovation. Utilize critical thinking to make sense of problems and persevere in solving them. Model integrity, ethical leadership and effective management. Plan education and career paths aligned to personal goals. Use technology to enhance productivity, increase collaboration and communicate effectively. Work productively in teams while using cultural/global competence.</p>
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New Jersey Legislative Statutes and Administrative Code (place an "X" before each law/statute if/when present within the curriculum map)								
Amistad Law: <i>N.J.S.A. 18A 52:16A-88</i>		Holocaust Law: <i>N.J.S.A. 18A:35-28</i>		LGBT and Disabilities Law: <i>N.J.S.A. 18A:35-4.35</i>	x	Diversity & Inclusion: <i>N.J.S.A. 18A:35-4.36a</i>	x	Standards in Action: <i>Climate Change</i>