Geometry Lesson plans 2023-24
Semester 1: September 5, 2023 - January 12, 2024
Quarter 1: September 5 - November 3, 2023
Quarter 2: November 7, 2023 - January 12, 2024

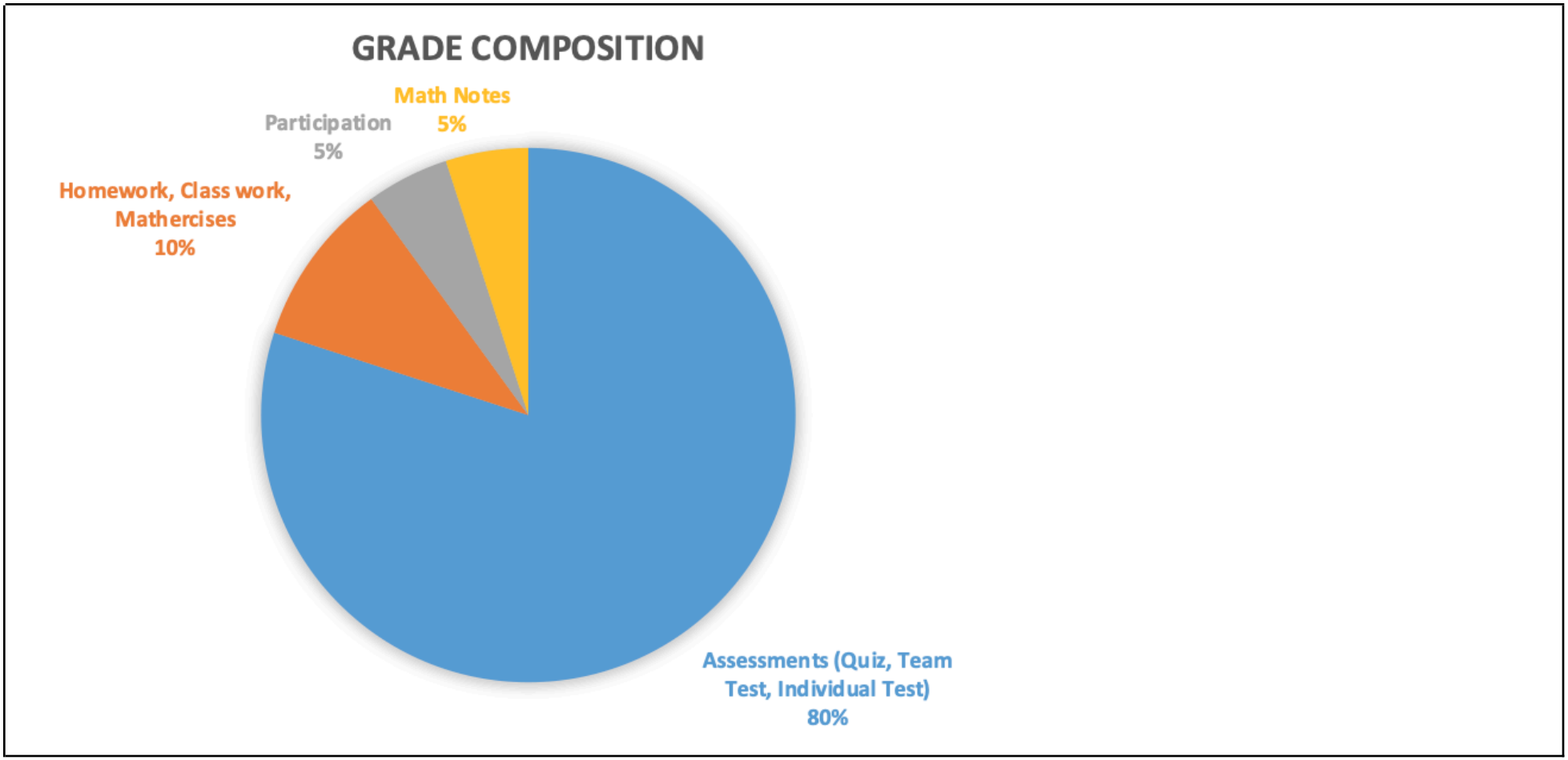
Click on a link to view the assignments for that week

Quarter 1	Quarter 2
Week 1 Sept. 5	Week 10 Nov. 7
Week 2 Sept. 11	Week 11 Nov. 13
Week 3 Sept. 18	Week 12 Nov. 20
Week 4 Sept. 25	Week 13 Nov. 27
Week 5 Oct. 2	Week 14 Dec. 4
Week 6 Oct. 9	Week 15 Dec. 11
Week 7 Oct. 16	Week 16 Dec. 18
Week 8 Oct. 23	Week 17 Jan. 2
Week 9 Oct. 30	Week 18 Jan. 8

Back to the beginning

Power Standards	
Algebraic Operations Linear Equations and Functions Linear Inequalities Systems of Linear Equations Nonlinear Equations and Functions Properties of Exponents	Perimeter, Area, and Geometric Formulas Analytical Geometry (Coordinate plane)- Transformations, Slope, Distance, Midpoint Triangle Properties (Lengths, Angles, Right Triangle Trigonometry, Pythagorean Theorem) Angle Properties (90°, 180°, 360°, vertical, complementary, supplementary) Parallel Lines and Angles Segment Length Units of Measure

Textbook: Core Connections Geometry. CPM 2013
Students will be graded on Participation, Mathercises, Classwork [CW], Homework [HW], Learning Logs [LL], Math Notes [MN], Quizzes, and Tests. Mathercises are to be done within the first 5 minutes of class and will not be made up. Mathercises, Quizzes, and Tests are to be completed and turned in the day assigned. Math Notes and Learning Logs will be checked on Quiz and Test days. Homework and Classwork should be turned in with the lesson sheet at the end of each week, if turned in earlier, students will receive extra credit.
Stay current. Mrs. Hoglo is available after school at LHS semester 1. Peer Tutoring is available through the Media Center. This is a free service and is highly encouraged.


GRADE COMPOSITION
Math Notes
5%
Participation
5%
Homework, Class work,
Mathercises
10%
Assessments (Quiz, Team
Test, Individual Test)
80%

Grading	If looking at the StudentVue/ParentVue
assessments (quizzes, tests) - 80% homework and classwork - 10% participation - 5% math notes - 5% quizzes - 10 points team tests - 50 points individual tests - 100 points homework - 5 points classwork - 5 points mathercises - 4 points participation - 10 points math notes - 5 points	Assessments = Quizzes, Tests Homework = Homework, Classwork, Mathercises Participation = Active Participation Math Notes = Math Notes

Wk 1	**Monday** **Sept. 4** **No School**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Mathercise	No School Labor Day	Hexaflexagon			
Lesson		Class Rules, Names word search 1.1.1 and 1.1.2	1.1.3 and 1.1.4	1.1.5 and 1.2.1	1.2.2 and 1.2.3
CW		Hexaflexagon CW 1.1.2A RP	1-19 CW 1.1.4 RP	1-37 to 1-40 (a-d) CW 1.2.1 RP	CW 1.2.2 RP 1-68 to 1-72
HW		1-3 to 1-5, 1-16 to 1-18	1-25, 1-28, 1-29, 1-32, 1-34, 1-36	1-42, 1-44, 1-45, 1-55, 1-56	1-63 to 1-65, 1-76 to 1-78
Learning Log				Reflections	Slopes of Perpendicular Lines
Math Notes		Lines of Symmetry The Investigative Process	The Perimeter and Area of a Figure Solving Linear Equations	Types of Angles Probability Vocabulary and Definitions	Rigid Transformations
Quiz					Quiz 1.1
Test					
Learning Targets		1.1.1 Students will work together to build hexaflexagons following the directions in class. 1.1.2 Students will generate questions to investigate, make predictions, and test their predictions as they work with Möbius strips and related constructions.	1.1.3 Students will build an understanding of area and perimeter. Students will investigate how the perimeter and area of a shape change as the shape is enlarged proportionally. 1.1.4 Students will be introduced to how to develop a convincing argument.	1.1.5 Students will build an understanding of what an angle is and how it is measured. Students will be introduced to complicated shapes composed of triangles and will begin to use attributes of sides and angles to compare and describe those shapes. 1.2.1 Students will use their spatial visualization skills to investigate reflection.	1.2.2 Students will understand the three rigid transformations (translations, reflections, and rotations) and will learn some connections between them. Students are also introduced to notation for corresponding parts. 1.2.3 Students will discover that objects and their images are equidistant from the line of reflection and that the line segment connecting a point with its reflected image is perpendicular to the line of reflection. In the process, students will recognize that the slopes of perpendicular lines are opposite reciprocals. Take Quiz 1.1

Wk 2	Monday Sept. 11	Tuesday School Pictures	Wednesday CCR	Thursday Lockdown and Evacuation @ 1:50	Friday
Lesson	1.2.4 and 1.2.5	1.2.6 and 1.3.1	1.3.2 and 1-Closure	2.1.1	2.1.2 and 2.1.3
CW	CW 1.2.4 RP CW The Shape Factory Catalog	CW 1.2.6 RP CW 1.3.1 RP	Shapes Toolkit MN P. 12, Venn Diagram	2-1 to 2-7	2-13 to 2-17, 24 to 2-26 (a-c) Angle Relationships Toolkit
HW	1-87 to 1-89, 1-95, 1-97	1-105 to 1-107, 1-112, 1-115	1-127, CL 1-128 to CL 1-137	2-8 to 2-12	2-19. 2-20. 2-22, 2-31, 2-33, 2-34
Learning Log	Isosceles Triangles	Symmetry		Angle Relationships	
Math Notes	Formal Definitions of Rigid Transformations Polygons	Slope of a Line and Parallel & Perpendicular Slopes Venn Diagrams	Ratio and Probability	Angle Relationships	Naming Parts of Shapes Systems of Linear Equations
Quiz			Quiz 1.2		Quiz 1.3
Test					
Learning Targets	1.2.4 As students investigate reflections, they will begin to develop an understanding of reflection symmetry, which will be explored in Lesson 1.2.6. Students also will learn how to translate a geometric figure on a coordinate grid. Finally, students learn that reflection and reflection symmetry can help them discover relationships within a shape, namely an isosceles triangle. 1.2.5 Students use what they know about transformations to make other shapes including rhombus, square, parallelogram, isosceles triangle, right triangle, kite, and dart.	1.2.6. Students will learn about reflection, rotation, and translation symmetry and will identify which common shapes have each type of symmetry 1.3.1 Students will learn how to classify shapes by their attributes using Venn diagrams. They will also review geometric vocabulary and concepts, such as number of sides, number of angles, same-length sides, right angle(s), equilateral, perimeter, edge, and parallel.	1.3.2 Students will continue to study the attributes of shapes as they begin to formalize their vocabulary: both names of shapes (such as quadrilateral and trapezoid) and attributes of shapes (such as parallel sides and right angles). Students will also become familiar with how to mark diagrams to help communicate attributes such as equal length and right angle. 1-Closure Closure Students reflect on what they have learned and solidify their understanding. Take Quiz 1.2	2.1.1 Students will be introduced to a problem about mirror reflections that will motivate much of their work in Section 2.1. Students will learn how to name angles and will learn the three main relationships for angle measures, namely, supplementary, complementary, and same (have the same measure). Students will also discover that vertical angles have the same measure.	2.1.2 Students will use their understanding of translation to determine that when a transversal intersects parallel lines, corresponding angles have equal measure. They will also continue to practice using angle relationships to solve for unknown angles. 2.1.3 Students will continue to apply their knowledge of corresponding angles and will develop theorems about alternate interior and same-side interior angles. Take Quiz 1.3

Wk 3	Monday Sept. 18	Tuesday Sub.	Wednesday CCR	Thursday	Friday
Lesson	2.1.4 and 2.1.5	2.2.1		2.2.2 and 2.2.3	2.2.4 and 2.3.1
CW	CW 2.1.4 RP, 2-46, 2-48, 2-49, 2-54	2-60, 2-63, 2-64		2-70 to 2-73, 2-79, 2-80, 2-83	2-90, 2-93, 2-99 to 2-103
HW	2-41 to 2-43, 2-55 to 2-57	2-65 to 2-67, 2-69		2-74 to 2-76, 2-85, 2-86, 2-88	2-94 to 2-96, 2-104, 2-107
Learning Log				Areas of Composite Figures	Triangle Inequality
Math Notes	More Angle Pair Relationships Proof by Contradiction	Triangle Angle Sum Theorem		Multiplying Binomials Conditional Statements	Areas of Triangles, Parallelograms, and Trapezoids Right Triangle Vocabulary
Quiz			Quiz 2.1		
Test			Ch. 1 Test		
Learning Targets	2.1.4 Students will discover that the angles in a triangle add up to 180°. They will also practice finding angles in complex diagrams that use multiple relationships. 2.1.5 Students will learn the converses of some of their angle theorems, and see arguments for them. Students will also apply their knowledge of angle relationships to analyze the hinged mirror trick they saw in Lesson 2.1.1.	2.2.1 The students will gain a geometric sense of length and area by investigating various unit measures of each concept. Students will also learn that the measurement of an object depends on the units being used.	Take Ch. 1 Test Take Quiz 2.1	2.2.2 Students will learn how to find the area of a triangle and will develop multiple methods to find the area of composite shapes formed by rectangles and triangles. 2.2.3 Students will use rectangles and triangles to develop algorithms to find the area of new shapes, including parallelograms and trapezoids.	2.2.4 Students will explore how to find the height of a triangle given that one side has been specified as the base. Additionally, students will find the areas of composite shapes using what they have learned about the areas of triangles, parallelograms, and trapezoids. 2.3.1 Students will develop a strategy to find the length of the hypotenuse of a right triangle when the lengths of the legs are known in preparation for the Pythagorean Theorem in Lesson 2.3.2. The students will also learn how to determine whether or not three given lengths can make a triangle. They will also understand how to find the maximum and minimum lengths of a third side given the lengths of the two other sides.

Wk 4	**Monday** **Sept. 25** **Coronation @ 2, auditorium**	**Tuesday**	**Wednesday** **CCR**	**Thursday**	**Friday** **Pepfest @ 2 gym**
Lesson	2.3.2 and 2-Closure	3.1.1	3.1.2	3.1.3	3.1.4
CW	2-109 to 2-111	CW 3.1.1 RP	3-11, 3-12, 3-14 to 3-17	3-24, 3-25, 3-28	3-35 to 3-38, 3-40
HW	2-113, 2-115 to 2-117, CL 2-118 to CL 2-126	3-5 to 3-10	3-18 to 3-23	3-30 to 3-34	3-41, 3-42, 3-44 to 3-46
Learning Log	Pythagorean Theorem	Same Shape, Different Size	Similar Figures		Comparing With Ratios
Math Notes	The Pythagorean Theorem	Dilations	Ratio of Similarity and Zoom Factor	Proportional Equations	Writing a Similarity Statement
Quiz		Quiz 2.2		Quiz 2.3	
Test					
Learning Targets	2.3.2 Students will develop and prove the Pythagorean Theorem. 2-Closure Students reflect on what they have learned and solidify their understanding.	3.1.1 Students will learn about the concept of dilation and will investigate the characteristics that figures share if they have the same shape. Students will determine that dilations have equal angles and proportional corresponding side lengths. Take Quiz 2.2	3.1.2 Students will learn that figures that can be related through a sequence of transformations that include a dilation are similar and will determine that multiplying (and dividing) lengths of figures by a common number (zoom factor) produces a similar figure. Students will use the equivalent ratios to find missing lengths in similar figures and will learn that congruent figures are similar and have a side ratio of 1.	3.1.3 As students continue to become familiar with similarity, they will examine the ratio of the perimeters of similar figures and will practice setting up and solving equations to solve proportional problems. Take Quiz 2.3	3.1.4 Students will apply proportional reasoning and will learn how to write similarity statements.

Wk 5	**Monday** **Oct. 2**	**Tuesday**	**Wednesday** **CCR** **Mid-Term**	**Thursday**	**Friday** **Sub.**
Lesson	3.2.1		3.2.2	3.2.3 and 3.2.4	3.2.5
CW	CW 3.2.1 RP		3-59 to 3-61, 3-63, 3-64	3-71, 3-73, 3-74, 3-82 to 3-84, 3-86, 3-87	3-94 to 3-97
HW	3-53, 3-54, 3-57, 3-58		3-65, 3-66, 3-68 to 3-70	3-76, 3-77, 3-80, 3-90, 3-91, 3-93	3-99 to 3-104
Learning Log	AA~ and SAS~		Using Flowcharts	Triangle Similarity Conditions	
Math Notes	Conditions for Triangle Similarity		Congruent Shapes	Writing a Flowchart	Complete Conditions for Triangle Similarity
Quiz		Quiz 3.1			
Test		Ch. 2 Test			
Learning Targets	3.2.1 Students will learn the SAS ~ and AA ~ conditions for determining triangle similarity.	Take Ch. 2 Test Take Quiz 3.1	3.2.2 Students will learn how to use flowcharts to organize their arguments for triangle similarity and will continue to practice applying the AA ~ and SAS ~ conditions.	3.2.3 Students practice making and using flowcharts in more challenging reasoning contexts. Students also further investigate the fact that if two triangles are similar and the common ratio between the lengths of their corresponding sides is 1, then the triangles must be congruent. 3.2.4 Students will complete their list of triangle similarity conditions involving sides and angles, learning about the SSS~ condition in the process.	3.2.5 Students will practice using the three triangle similarity conditions (AA ~, SAS ~, and SSS ~) and organizing their reasoning in a flowchart. Students will also use a flowchart to diagram a multi-step argument.

Wk 6	**Monday Oct. 9**	**Tuesday**	**Wednesday CCR**	**Thursday**	**Friday**
Lesson	3.2.6 and 3-Closure	4.1.1 and 4.1.2	4.1.3	4.1.4	
CW	3-106	4-2 to 4-4, 4-12 to 4-14, 4-16	4-23 to 4-26	4-34 to 4-38	
HW	3-108, 3-111, 3-113, CL 3-114 to CL 3-124	4-6, 4-7, 4-9, 4-17, 4-18, 4-20 [Use 4.1.1 RP]	4-27 to 4-32	4-39 to 4-44	
Learning Log			Slope Angles and Slope Ratios	The Tangent Ratio	
Math Notes		Slope and Angle Notation Slope Ratios and Angles	Sequences	The Tangent Ratio	
Quiz	Quiz 3.2				
Test					Ch. 3 Test
Learning Targets	3.2.6 Students will apply their knowledge of similar triangles to multiple contexts. 3-Closure Students reflect on what they have learned and solidify their understanding.	4.1.1 Students will recognize that all the slope triangles on a given line are similar to each other and will begin to connect a specific slope to a specific angle measurement and ratio. 4.1.2 Students will connect specific slope ratios to their related angles and use this information to find missing sides or angles of right triangles with 11°, 22°, 18°, or 45° angles (and their complements).	4.1.3 Students will use technology to generate slope ratios for new angles in order to solve for missing side lengths on triangles.	4.1.4 Students will practice using slope ratios to find the length of a leg of a right triangle and will learn that this ratio is called tangent. Students will also practice re-orienting a triangle and will learn new ways to identify which leg is Δx and which is Δy. Additionally, students will learn how to find the slope ratio using a scientific calculator.	Take Ch. 3 Test

Wk 7	**Monday** **Oct. 16** **Hoglo P/T Conf. 4-8 @ ALC**	**Tuesday** **Students out @ noon** **Hoglo P/T Conf. 1-3:45 @ ALC, 4-8 @ LHS**	**Wednesday** **Hoglo P/T Conf. 8-1 @ LHS** **No school**	**Thursday** **No school**	**Friday** **No school**
Lesson	4.1.5		No school	No school	No school
CW	4-45				
HW	4-47 to 4-52				
Learning Log					
Math Notes	Independent Events				
Quiz		Quiz 4.1			
Test					
Learning Targets	4.1.5 Students will apply their knowledge of tangent ratios to find measurements about the classroom or school site.	New seating chart Ice breaker Take Quiz 4.1			

Wk 8	**Monday Oct. 23**	**Tuesday**	**Wednesday CCR**	**Thursday Sub.**	**Friday**
Lesson	5.1.1	5.1.2	5.1.3	5.1.4	5.2.1
CW	5-2 to 5-6	5-13, 5-15, 5-16	5-24 to 5-26, 5-28	5-36 to 5-38	5-47 to 5-49, 5-51
HW	5-7 to 5-12	5-17 to 5-20, 5-22, 5-23	5-29 to 5-31, 5-33 to 5-35	5-41 to 5-46	5-52 to 5-54, 5-56 to 5-58
Learning Log		Choosing a Trig Tool	Inverse Trig Functions		Special Right Triangles
Math Notes		Trigonometric Ratios		Inverse Trigonometry	Rationalizing a Denominator
Quiz					Quiz 5.1
Test					
Learning Targets	5.1.1 Students will learn about the sine and cosine ratios and will start a Triangle Toolkit.	5.1.2 The students will develop strategies to recognize which trigonometric ratio to use based on the relative position of the reference angle and the given sides involved.	5.1.3 The students will understand how to use trigonometric ratios to find the unknown angle measures of a right triangle and will be introduced to the concept of “inverse.”	5.1.4 The students will use sine, cosine, and tangent ratios to solve application problems.	5.2.1 Students will recognize the similarity ratios in 30°- 60°- 90° and 45°- 45°- 90°triangles and begin to apply those ratios as a shortcut to finding missing side lengths.

Wk 9	**Monday** **Oct. 30**	**Tuesday** **Happy Halloween :)**	**Wednesday** **CCR** **Sub.**	**Thursday**	**Friday** **Quarter 1 ends** **Submit all extra credit :)**
Lesson	5.2.2	5.3.1	5.3.2	5.3.3 and 5.3.4	5.3.5
CW	5-59 to 5-61	5-72, 5-74 to 5-76	5-84 to 5-86, 5-88	5-96, 5-97, 5-99	5-118 to 5-121
HW	5-64 to 5-66, 5-68 to 5-70	5-77 to 5-82	5-89 to 5-92, 5-94, 5-95	5-100, 5-103, 5-104, 5-112, 5-114, 5-115	5-126 to 5-131
Learning Log		Strategies to find Sides and Angles of a Triangle	Law of Sines		
Math Notes	Expected Value	Special Right Triangles	Law of Sines	Law of Cosines	
Quiz		Quiz 5.2			
Test					
Learning Targets	5.2.2 Students will learn to recognize 3:4:5 and 5:12:13 triangles and find other examples of Pythagorean Triples. In addition, students will practice recognizing and applying all three of their new triangle shortcuts.	5.3.1 Students will review their tools for finding missing sides and angles of triangles (Pythagorean Theorem and right-triangle trigonometry) and will develop a method to solve for missing sides and angles for a non-right triangle.	5.3.2 Students will recognize the relationship between a side and the angle opposite that side in a triangle. Students will also develop the Law of Sines and use it to find missing side lengths and angles of non-right triangles.	5.3.3 Students will complete their Triangle Toolkits by developing the Law of Cosines. 5.3.4 Students will learn that multiple triangles are sometimes possible when two side lengths and an angle not between them are given (SSA).	5.3.5 Students will apply their current triangle tools (Pythagorean Theorem, trigonometric ratios, the Law of Sines, and the Law of Cosines) to solve multiple problems and applications.

Wk 10	**Monday** **Nov. 6** **No school, teacher inservice**	**Tuesday**	**Wednesday**	**Thursday**	**Friday** **Happy Veterans Day :)** **Lyceum @ 10:51**
Lesson	No school	5.3.5	5-Closure	6.1.1 and 6.1.2	6.1.3
CW		5-122 to 5-125	SOH CAH TOA Gettin' Triggy Wit It (WSHS Math Rap Song)	6-1, 6-2, 6-11, 6-12	6-20 to 6-22
HW		5-132 to 5-137	CL 5-139 to CL 5-150	6-4, 6-5, 6-7, 6-14, 6-15, 6-19	6-23 to 6-28
Learning Log					
Math Notes				Congruent Shapes	
Quiz			Quiz 5.3		
Test					
Learning Targets		5.3.5 Students will apply their current triangle tools (Pythagorean Theorem, trigonometric ratios, the Law of Sines, and the Law of Cosines) to solve multiple problems and applications.	5-Closure Students reflect on what they have learned and solidify their understanding.	6.1.1 Students will practice identifying congruent triangles by first determining that the triangles are similar and that the ratio of corresponding sides is 1. Students will start to develop triangle shortcuts. 6.1.2 Students will use their understanding of similarity and congruence to develop conditions that guarantee that triangles are congruent (SSS≅, ASA≅, AAS≅, HL≅, and SAS≅).	6.1.3 Students will show that the triangle congruence conditions are true using rigid transformations.

Wk 11	**Monday** **Nov. 13**	**Tuesday**	**Wednesday**	**Thursday**	**Friday** **Recognition Assembly @ 2:06** **Sub.**
Lesson	6.1.4	6.1.5		7.2.1	7.2.2
CW	6-29, 6-30, 6-32	6-41, 6-42, 6-45		7-49, 7-50, 7-52	7-61, 7-62, 7-64
HW	6-34 to 6-38, 6-40	6-48 to 6-50, 6-52		7-54, 7-55, 7-57 to 7-60	7-65 to 7-69, 7-71
Learning Log		Converses			
Math Notes	Triangle Congruence Conditions	Converses		Congruent Triangles → Congruent Corresponding Parts Reflexive Property of Equality	Exponential Functions
Quiz			Quiz 6.1		
Test			Ch. 5 Test		
Learning Targets	6.1.4 Students will extend their use of flowcharts to document triangle congruence facts. They will practice identifying pairs of congruent triangles and will contrast congruence arguments with similarity arguments.	6.1.5 Students will recognize the converse relationship between conditional statements, and will then investigate the relationship between the truth of a statement and the truth of its converse.	Take Ch. 5 Test Take Quiz 6.1	7.2.1 Students will be introduced to proof and will learn more properties of parallelograms and kites.	7.2.2 Students will use their understanding of congruent triangles to prove properties of rhombi and will practice using a flowchart structure to organize a proof.

Wk 12	**Monday** **Nov. 20** **Sub.**	**Tuesday** **Sub.**	**Wednesday**	**Thursday** **No school** **Happy Thanksgiving :)**	**Friday** **No school**
Lesson	7.2.3	7.2.4	7.2.5	No school	No school
CW	7-72, 7-73	7-82	7-91, 7-92, 7-94, 7-95		
HW	7-75, 7-76, 7-78 to 7-81	7-83, 7-85 to 7-89	7-96 to 7-100, 7-102		
Learning Log			Two-Column Proofs		
Math Notes	Definitions of Quadrilaterals	Diagonals of a Rhombus			
Quiz					
Test					
Learning Targets	7.2.3 Students will continue developing flowchart proofs as a way to communicate a logical argument and will prove that all rectangles are also parallelograms.	7.2.4 Students will write flowchart proofs to demonstrate additional properties of quadrilaterals and isosceles triangles.	7.2.5 As students continue to learn how to build a convincing argument, they will be introduced to the format of a two-column proof.		

Wk 13	**Monday** **Nov. 27**	**Tuesday** **Sub.**	**Wednesday** **CCR**	**Thursday**	**Friday**
Lesson	7.2.6	7.3.1 and 7.3.2	7.3.3	8.1.1	8.1.2
CW	7-103, 7-104, 7-107	7-116, 7-117, 7-126, 7-127, 7-130	7-139	8-1, 8-3, 8-4	8-13 to 8-15
HW	7-108, 7-110 to 7-114	7-117, 7-125, 7-131, 7-113, 7-135 (a), 7-136	7-140 to 7-144	8-6 to 8-10, 8-12	8-17 to 8-19, 8-21 to 8-23
Learning Log		Finding a Midpoint			Sum of Interior Angles of a Polygon
Math Notes	Triangle Midsegment Theorem	Coordinate Geometry	Finding a Midpoint	Convex and Non-Convex Polygons	Special Quadrilateral Properties
Quiz			Quiz 7.2	Quiz 7.3	
Test					
Learning Targets	7.2.6 Students continue to develop their skills of writing proofs as they prove new properties of triangles and quadrilaterals. Students will be exposed to proofs based on similar triangles and those requiring auxiliary lines to be added to a diagram.	7.3.1 Students will investigate quadrilaterals for special properties, such as parallel sides or a right angle. Students will also review several algebraic tools and will apply these skills to analyze shapes on a coordinate grid. 7.3.2 Students will develop methods for finding the midpoint of a segment on a coordinate grid as they continue their study of coordinate geometry.	7.3.3 Students will develop methods for finding the midpoint of a segment on a coordinate grid as they continue their study of coordinate geometry.	8.1.1 Students will learn that regular polygons can be built using congruent isosceles triangles with certain angle measures. Students will also learn that the central angle of a regular n-gon or pinwheel with n sides is always 360° ÷ n and will learn how to determine if a shape is convex.	8.1.2 Students will learn how to find the sum of the interior angles of a polygon and will be able to apply this skill to solve problems.

Wk 14	**Monday** **Dec. 4**	**Tuesday**	**Wednesday** **CCR** **Midterm**	**Thursday**	**Friday**
Lesson	8.1.3	8.1.4	8.1.5	8.1.5	
CW	8-24 to 8-26, 8-28	8-36, 8-37, 8-39	8-47, 8-49, 8-50	8-51, 8-52	
HW	8-29, 8-31 to 8-35	8-40 to 8-45	8-53 to 8-58	8-59 to 8-62, 8-64, 8-66	
Learning Log	Interior Angles and Sum of Exterior Angles of a Polygon	Regular Polygon Angle Web	Area of a Regular Polygon		
Math Notes			Interior and Exterior Angles of a Polygon		
Quiz					Quiz 8.1
Test					Test on 6.1, 7.2, 7.3
Learning Targets	8.1.3 Students will learn how to determine the measure of an interior and exterior angle of a regular polygon.	8.1.4 Students will develop multiple strategies to find the measures of interior and exterior angles of a regular polygon as well as the sum of the interior angles of polygons in general.	8.1.5 Students will develop an algorithm to find the area of any regular polygon.	8.1.5 Students will develop an algorithm to find the area of any regular polygon.	Take Test 6.1, 7.2, 7.3 Take Quiz 8.1

Wk 15	Monday Dec. 11	Tuesday	Wednesday	Thursday	Friday
Lesson	8.2.1	8.2.2	8.3.1	8.3.2	8.3.3 Tacoma Bridge disaster 5:57 Quebec Bridge disaster 14:48 Silver Bridge disaster 24:34 Florida International University Bridge Disaster 2018 17:15
CW	8-67 to 8-69	8-78, 8-79, 8-82	8-90 to 8-92	8-100, 8-101, 8-103, 8-104	8-112 to 8-114
HW	8-71 to 8-74, 8-76, 8-77	8-83, 8-85 to 8-89	8-93 to 8-95, 8-97 to 8-99	8-105 to 8-107, 8-109 to 8-111	8-116, 8-117, 8-119, 8-124, 8-128, 8-129
Learning Log		Areas and Perimeters of Similar Figures	Pi	Area and Circumference of a Circle	
Math Notes	Ratios of Similarity		Area of a Regular Polygon	Circle Facts	Arc Length and Area of a Sector
Quiz			Quiz 8.2		
Test					
Learning Targets	8.2.1 Students will learn that the ratio of the areas of similar figures is the square of the ratio of similarity (also called zoom factor).	8.2.2 Students will continue to develop their understanding for how the area and perimeter of a shape change as the shape is enlarged or reduced proportionally.	8.3.1 Students will discover the area and circumference formulas for a circle with radius 1. Take Quiz 8.2	8.3.2 Students will use their understanding of the ratios of areas of similar figures to develop a method of finding the area and circumference of a circle with any sized radius. Students will also develop methods to find the area of sectors and the length of arcs.	8.3.3 Students will use problem-solving strategies to find areas of circular and polygonal regions in context.

Wk 16	**Monday** **Dec. 18**	**Tuesday**	**Wednesday**	**Thursday**	**Friday** **Early out - noon** **Merry Christmas!**
Lesson	8.3.3	8-Closure	9.1.1		Can You Zooley?
CW	8-115		9-1 to 9-4, 9-6		Can You Zooley?
HW	8-118, 8-120, 8-121, 8-122	CL 8-130 to CL 8-140	9-7 to 9-11, 9-13		
Learning Log			Volume of a Three-Dimensional Shape		
Math Notes					
Quiz		Quiz 8.3			
Test				Ch. 8 Test	
Learning Targets	8.3.3 Students will use problem-solving strategies to find areas of circular and polygonal regions in context.	Take Quiz 8.3 8-Closure Students reflect on what they have learned and solidify their understanding.	9.1.1 Students will learn how to represent three-dimensional solids using side views and a mat plan. Students will also be introduced to volume as a form of measurement.	Take Ch. 8 Test	Can You Zooley? Students will use their deduction reasoning to solve a series of questions.

Wk 17	**Monday** **Jan. 1** **Happy New Year!** **No school**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Lesson	No school	9.1.2	9.1.3	9.1.4	9.1.5
CW	Puzzle	9-14 to 9-16, 9-19	9-28 to 9-30	9-41, 9-42, 9-44	9-53, 9-54
HW		9-20 to 9-23, 9-26, 9-27	9-33, 9-34, 9-37 to 9-40	9-45 to 9-49, 9-52	9-56, 9-59 to 9-63
Learning Log		Finding Volume		Volumes of Similar Solids	
Math Notes		Polyhedra and Prisms	Volume and Total Surface Area		The $r : r^2 : r^3$ Ratios of Similarity
Quiz					
Test					
Learning Targets		9.1.2 Students will understand how to represent a solid with a net and will be introduced to prisms. Students will also learn how to find the surface area of a solid.	9.1.3 Students will practice finding the surface area and volume of non-rectangular prisms and cylinders. Students will understand that the volume of a cylinder or prism remains constant if the solid is slanted (as long as the height of the solid remains the same). Finally, students will learn how to sketch prisms and cylinders on their paper.	9.1.4 Students will understand that the ratio of the volumes of similar figures is the cube of the linear scale factor and they will use this relationship in applications.	9.1.5 Students will apply their understanding of the ratios of similarity.

Wk 18	**Monday** **Jan. 8**	**Tuesday** **Turn in book**	**Wednesday** **Turn in book**	**Thursday**	**Friday** **Submit all extra credit :)** **End of semester**
Lesson	10.1.1 and 10.1.2	10.1.3 and 10.1.4	10.1.5	11.1.1	Awards Ceremony
CW	10-1, 10-2, 10-4, 10-14, to 10-17	10-25 to 10-28, 10-38 to 10-41 (a)	10-50, 10-51	11-1, 11-2, 11-4	
HW	10-7, 10-11, 10-12, 10-18, 10-21, 10-24	10-31, 10-34, 10-35, 10-43, 10-44, 10-49	10-54 to 10-58, 10-60		
Learning Log	Inscribe Angles	Connections with Circles		Plato's Solids	
Math Notes	Circle Vocabulary More Circle Vocabulary	Inscribed Angle Theorem Intersecting Chords	Points of Concurrency		
Quiz		Quiz 9.1		Quiz 10.1	
Test					
Learning Targets	10.1.1 Students will learn that the perpendicular bisector of a chord passes through the center of the circle and will learn new circle-related vocabulary, such as major and minor arcs. 10.1.2 Students will learn about the relationships between inscribed angles and the arcs that they intercept. Students will also learn the difference between arc measure and arc length. Take Ch. 8 Test Take Quiz 9.1	10.1.3 Students will learn that an angle inscribed in a semicircle measures 90°. Students will also prove that opposite angles in an inscribed quadrilateral are supplementary. Students will develop different methods to find the length of a chord and will use the idea of similar triangles to find the relationships between the lengths created by two intersecting chords. 10.1.4 Students will learn that a line tangent to a circle is perpendicular to the radius of the circle drawn to the point of tangency. Students will apply their knowledge of tangents, chords, angles, and arcs to solve problems involving circles. Take Quiz 9.1	10.1.5 Students will consolidate their understanding of the relationships that exist between angles, arcs, chords, and tangents of a circle as they solve application problems. Students will also learn how to find a circle that circumscribes a triangle.	11.1.1 Students will build the five Platonic Solids (tetrahedron, octahedron, icosahedron, cube, and dodecahedron) and will understand why these are the only solids with faces that are congruent, regular polygons. Students will also learn how to describe polyhedra using the number of faces (such as tetrahedron for any polyhedron with four faces) and will learn about dual polyhedra. Take Quiz 10.1	Students will enjoy the Awards Ceremony :)

11.1.2	11.1.3	11.1.3	11.1.4	11.1.5	
11-22, 11-24	11-33 to 11-36	11-37	11-53-11-55	11-67-11-70	
Pyramid Vocabulary	Cross-Sections of Three Dimensional Solids		Volume of a Pyramid	Volume and Lateral Surface Area of a Cone	
					Quiz 11.1
					Test on 9.1, 10.1, 11.1
11.1.2 Students will learn how a pyramid is defined and how to name it according to the shape of its base. Students will learn about slant height and finding the total surface area of a pyramid.	11.1.3 Students will discover that the volume of a pyramid is one third of the volume of a prism with the same base and height.	11.1.3 Students will discover that the volume of a pyramid is one third of the volume of a prism with the same base and height.	11.1.4 Students will practice calculating the volume of a pyramid and will learn how to find the volume and surface area of a cone. Students will solve two application problems involving cones.	11.1.5 Students will learn how to find the surface area and volume of a sphere.	Take Test on 9.1, 10.1, 11.1 Take Quiz 11.1