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Semester	A Unit 1	A Unit 2	A Unit 3	A Unit 4	A Unit 5	A Unit 6	A Unit 7	A Unit 8	B Unit 1	B Unit 2	B Unit 3	B Unit 4	B Unit 5	B Unit 6	B Unit 7	B Unit 8
G.CO.A.1	x		x													
G.CO.A.2			x					x								
G.CO.A.3			x													
G.CO.A.4			x													
G.CO.A.5			x													
G.CO.A.6			x													
G.CO.B.7								x								
G.CO.B.8							x									
G.CO.B.9			x	x			x									
G.CO.C.10		x		x			x									
G.CO.C.11						x	x									
G.CO.C.12												x				
G.CO.C.12.a												x				
G.CO.D.13	x				x											
G.CO.D.14						x								x		
G.SRT.A.1								x								
G.SRT.A.1.a								x								
G.SRT.A.1.b								x								
G.SRT.A.2								x								

[illegible]

G.GMD.A.3																x	x
G.GMD.B.4																x	
G.MG.A.1													x				x
G.MG.A.2																	x
G.MG.A.3																	x
G.MG.A.4								x		x							x
A.REI.B.4		x															
A-REI.C.6		x															
F.IF.C.7.a		x															
A.REI.B.3		x															

GEOMETRY A

Unit 1: Introduction to Geometry

Idaho Standards	Unit Objectives
G.GPE.B.4: Use coordinates to prove simple geometric theorems algebraically, including the distance formula and its relationship to the Pythagorean Theorem. G.CO.D.13: Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.) Constructions include: copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line. G.GPE.B.6: Find the point on a directed line segment between two given points that partitions the segment in a given ratio. G.CO.A.1: Know precise definitions of angle, circle,	- define and notate the basic elements of Geometry. - solve for length and midpoint of a segment given the coordinates of the endpoints. - solve for the area and circumference of a circle.

perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.	
Lesson 1: Geometric Building Blocks	
Lesson Objectives define and identify point, line, and plane. - correlation: G.GPE.B.4 define and identify segment, endpoints, ray, collinear, intersection, and coplanar. - correlation: G.CO.D.13	Assessments - Objective 1: U1A1: Geometric Building Blocks Quiz - Objective 2: U1A1: Geometric Building Blocks Quiz
Lesson 2: Lines and Basic Constructions	
Lesson Objectives - define coordinate, distance, length and congruent segments. - correlation: G.CO.D.13 - solve for length of line segments given information about distance and midpoints. - correlation: G.CO.D.13 - identify and use segment addition postulate. - correlation: G.CO.D.13 - define midpoint and segment bisector. - correlation: G.CO.D.13 - construct line segments and parallel lines. - correlation: G.GPE.B.6	Assessments - Objective 1: U1A2: Lines and Basic Constructions Quiz - Objective 2: U1A2: Lines and Basic Constructions Quiz - Objective 3: U1A2: Lines and Basic Constructions Quiz - Objective 4: U1A2: Lines and Basic Constructions Quiz - Objective 5: U1A3: Construction #1
Lesson 3: Angles	
Lesson Objectives - define and identify angle and vertex of an angle. - correlation: G.GPE.B.6 - define acute, right, obtuse, straight and reflex angles. - correlation: G.GPE.B.6 - find angle measures using properties of angles. - correlation: G.CO.A.1	Assessments - Objective 1: U1A4: Angles Quiz - Objective 2: U1A4: Angles Quiz - Objective 3: U1A4: Angles Quiz - Objective 4: U1A4: Angles Quiz

4. identify and categorize angles. correlation: G.CO.A.1	
Lesson 4: Circles and Arcs	
Lesson Objectives - define circle, arc, circumference and area. - correlation: G.CO.A.1 - solve for the area and circumference of a circle. - correlation: G.CO.A.1	Assessments - Objective 1: U1A5: Circles and Arcs Quiz - Objective 2: U1A5: Circles and Arcs Quiz

Unit 2: Introduction to Proofs

Idaho Standards	Unit Objectives
G.GPE.B.4: Use coordinates to prove simple geometric theorems algebraically, including the distance formula and its relationship to the Pythagorean Theorem. G.CO.C.10: Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent, and conversely prove lines are parallel; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints. A.REI.B.3: Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. F.IF.C.7.a: Graph functions expressed symbolically and show key features of the graphs, by hand in simple cases and using technology for more complicated cases. a. Graph linear and quadratic functions and show intercepts, maxima, and minima. A-REI.C.6: Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. A.REI.B.4: Solve quadratic equations in one variable.	- solve linear equations, inequalities, systems of equation and quadratic equations. - write and graph an equation of a line. - define and predict conjecture, inductive reasoning, deductive reasoning, and counterexample. - define and apply properties of angle bisectors, vertical angles, congruent angles, complementary angles, supplementary angles, adjacent angles and linear pairs. - prove vertical angles are congruent.

Lesson 1: Algebra Review	
Lesson Objectives 1. solve linear equations and inequalities. ○ correlation: A.REI.B.3 2. write and graph an equation of a line. ○ correlation: F.IF.C.7.a 3. solve systems of equations by substitution and elimination. ○ correlation: A-REI.C.6 4. solve quadratic equations by factoring and the quadratic formula. ○ correlation: A.REI.B.4	Assessments ● Objective 1: U2A1: Algebra Review Quiz ● Objective 2: U2A1: Algebra Review Quiz ● Objective 3: U2A1: Algebra Review Quiz ● Objective 4: U2A1: Algebra Review Quiz
Lesson 2: Introduction to Proofs	
Lesson Objectives 1. define conjecture, inductive reasoning, deductive reasoning, and counterexample. ○ correlation: G.GPE.B.4 2. define proof and theorem. ○ correlation: G.CO.C.10 3. predict the next term of a pattern and identify counterexamples. ○ correlation: G.CO.C.10	Assessments ● Objective 1: U2A2: Introduction to Proofs Quiz ● Objective 2: U2A2: Introduction to Proofs Quiz ● Objective 3: U2A2: Introduction to Proofs Quiz,
Lesson 3: Introduction to Lines and Angles Theorems	
Lesson Objectives 1. define and apply properties of angle bisectors, congruent angles, complementary angles, supplementary angles, adjacent angles and linear pairs. ○ correlation: G.CO.C.10 2. use properties of supplementary, complementary and adjacent angles to solve for missing variables and angles. ○ correlation: G.CO.C.10	Assessments ● Objective 1: U2A3: Lines and Angles Theorem Quiz ● Objective 2: U2A3: Lines and Angles Theorem Quiz

Lesson 4: Proof-Vertical Angle Congruency	
Lesson Objectives 1. define and apply properties of vertical angles. - o correlation: G.CO.C.10 2. prove vertical angles are congruent. - o correlation: G.CO.C.10	Assessments • Objective 1: U2A4: Vertical Angles Proofs Quiz • Objective 2: U2A4: Vertical Angles Proofs Quiz

Unit 3: Transformations

Idaho Standards	Unit Objectives
G.CO.A.1: Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc. G.CO.A.2: represent transformations in the plane and describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not. G.CO.A.3: Describe the rotations and reflections that carry a given figure (rectangle, parallelogram, trapezoid, or regular polygon) onto itself. G.CO.A.4: Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments. G.CO.A.5: Draw the transformation (rotation, reflection, or translation) for a given geometric figure. G.CO.A.6: Specify a sequence of transformations that will carry a given figure onto another. G.CO.B.9: Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.	• perform & analyze transformations using coordinate geometry • combine transformations and apply them to objects in the coordinate plane. • prove corresponding angles are congruent with parallel lines and a transversal.
Lesson 1: Identify and Construct Transformations	

Lesson Objectives 1. define transformation, translation and rotation. ○ correlation: G.CO.A.3 2. identify translations and rotations when they are performed on objects. ○ correlation: G.CO.A.3	Assessments ● Objective 1: U3A1: Identify and Construct Transformations Quiz; U3D1 Simile, Metaphor, Analogy ● Objective 2: U3A1: Identify and Construct Transformations Quiz
Lesson 2: Proof - Angles	
Lesson Objectives 1. define parallel lines, corresponding angles and alternate interior angles. ○ correlation: G.CO.A.1 2. prove alternate interior angles are congruent with parallel lines and a transversal. ○ correlation: G.CO.A.1	Assessments ● Objective 1: U3A2: Angles & Proofs Quiz ● Objective 2: U3A2: Angles & Proofs Quiz
Lesson 3: Rotations in the Coordinate Plane	
Lesson Objectives 1. identify rotations and apply rotation rules to objects in the coordinate plane. ○ correlation: G.CO.A.5	Assessments ● Objective 1: U3A3: Rotations in the Coordinate Plane Quiz
Lesson 4: Reflections Over One Line	
Lesson Objectives 1. define and identify reflections. ○ correlation: G.CO.A.4 2. perform reflections over one line in the coordinate plane. ○ correlation: G.CO.A.4	Assessments ● Objective 1: U3A4: Reflections Over One Line Quiz ● Objective 2: U3A4: Reflections Over One Line Quiz
Lesson 5: Reflections Over Two Lines	
Lesson Objectives 1. perform reflections over horizontal and vertical lines. ○ correlation: G.CO.A.4 2. perform reflections over two lines. ○ correlation: G.CO.A.4, G.CO.A.6	Assessments ● Objective 1: U3A5: Reflections Over Two Lines Quiz ● Objective 2: U3A5: Reflections Over Two Lines Quiz

Lesson 6: Composition & Sequence of Transformations	
Lesson Objectives 1. identify and perform composition of transformations. ○ correlation: G.CO.A.2, G.CO.A.6 2. combine transformations and apply them to objects in the coordinate plane. ○ correlation: G.CO.A.2, G.CO.A.6	Assessments ● Objective 1: U3A6: Compositions & Sequence Quiz ● Objective 2: U3A6: Compositions & Sequence Quiz
Lesson 7: Proof--Parallel Lines	
Lesson Objectives 1. define parallel lines, corresponding angles and alternate interior angles. ○ correlation: G.CO.B.9 2. prove corresponding angles are congruent with parallel lines and a transversal. ○ correlation: G.CO.B.9	Assessments ● Objective 1: U3A7: Parallel Lines Proofs Quiz ● Objective 2: U3A7: Parallel Lines Proofs Quiz

Unit 4: Congruence and Angle Relationships

Idaho Standards	Unit Objectives
G.CO.B.9: Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions. G.CO.C.10: Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent, and conversely prove lines are parallel; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.	● identify and determine the measures of angles formed by parallel lines and transversals. ● identify congruent triangles and write congruence statements. ● prove the perpendicular bisector theorem. ● use properties of perpendicular lines to find missing angles.
Lesson 1: Compare Figures for Congruence	
Lesson Objectives	Assessments

1. identify congruent triangles and write congruence statements. ○ correlation: G.CO.C.10 2. find missing parts of congruent triangles. ○ correlation: G.CO.C.10	● Objective 1: U4A1: Compare Figures for Congruence Quiz ● Objective 2: U4A1: Compare Figures for Congruence Quiz
Lesson 2: Angle Relationships Formed by Parallel Lines	
Lesson Objectives 1. identify angle pairs when parallel lines are crossed by a transversal. ○ correlation: G.CO.C.10 2. find missing angles when parallel lines are crossed by a transversal. ○ correlation: G.CO.C.10	Assessments ● Objective 1: U4A2: Angle Relationships in Parallel Lines Quiz ● Objective 2: U4A2: Angle Relationships in Parallel Lines Quiz
Lesson 3: Angle Relationships Formed by Perpendicular Lines	
Lesson Objectives 1. use properties of perpendicular lines to find missing angles. ○ correlation: G.CO.B.9 2. write the equation of a line perpendicular to a given line in the coordinate plane. ○ correlation: G.CO.B.9	Assessments ● Objective 1: U4A3: Angle Relationships in Perpendicular Lines Quiz ● Objective 2: U4A3: Angle Relationships in Perpendicular Lines Qui
Lesson 4: Proof--Properties of Perpendicular Bisectors	
Lesson Objectives 1. prove the perpendicular bisector theorem. ○ correlation: G.CO.B.9	Assessments ● Objective 1: U4A4: Perpendicular Bisector Proofs Quiz

Unit 5: Constructions--Lines and Angles

Idaho Standards	Unit Objectives
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G.CO.D.13: Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.) Constructions include: copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line. G.GPE.B.5: Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems. G.GPE.B.6: Find the point on a directed line segment between two given points that partitions the segment in a given ratio.	• write equations of parallel and perpendicular lines. • perform constructions to angles and segments. • partition a line segment into a given ratio.
Lesson 1: Constructions--Copy and Bisect a Line and Angle	
Lesson Objectives 1. copy a line segment and bisect a line segment using constructions. ◦ correlation: G.CO.D.13 2. copy an angle and bisect an angle using constructions. ◦ correlation: G.CO.D.13	Assessments • Objective 1: U5A1: Lines and Angles Constructions Quiz, U5D1: Applying the Concepts of Constructions • Objective 2: U5A1: Lines and Angles Constructions Quiz, U5D1: Applying the Concepts of Constructions
Lesson 2: Constructions--Perpendicular Lines and Bisector of a Line Segment	
Lesson Objectives 1. construct perpendicular lines. ◦ correlation: G.CO.D.13 2. construct a perpendicular bisector for a line segment. ◦ correlation: G.CO.D.13	Assessments • Objective 1: U5A2: Perpendicular Lines and Bisector of a Line Segment Constructions Quiz • Objective 2: U5A2: Perpendicular Lines and Bisector of a Line Segment Constructions Quiz
Lesson 3: Slope and Equations of Parallel and Perpendicular Lines	
Lesson Objectives 1. write equations of parallel lines. ◦ correlation: G.GPE.B.5 2. write equations of perpendicular lines.	Assessments • Objective 1: U5A3: Equations of Parallel and Perpendicular Lines Quiz • Objective 2: U5A3: Equations of Parallel and

○ correlation: G.GPE.B.5	Perpendicular Lines Quiz
Lesson 4: Constructions--Parallel Line Through a Given Point	
Lesson Objectives 1. construct a parallel line through a given point. ○ correlation: G.GPE.B.5, G.CO.D.13	Assessments ● Objective 1: U5A4: Parallel Line Through a Given Point Construction
Lesson 5: Partition Line Segments into Ratios	
Lesson Objectives 1. partition a line segment into a given ratio. ○ correlation: G.GPE.B.6	Assessments ● Objective 1: U5A5: Partition a Line Segment Into Ratios Quiz

Unit 6: Triangle Relationships

Idaho Standards	Unit Objectives
G.CO.C.11: Prove theorems about triangles. Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent, and conversely prove a triangle is isosceles; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point. G.CO.C.14: Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle. G.SRT.B.4: Prove theorems about triangles. Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.	● classify triangles by their sides and angles. ● explore properties of bisectors, medians, altitudes, and midsegments of a triangle and how those properties relate to triangles.
Lesson 1: Classifying Triangles	
Lesson Objectives 1. classify triangles by side length. ○ correlation: G.CO.C.11	Assessments ● Objective 1: U6A1: Classifying Triangles, Objective 2: U6A1: Classifying Triangles Hunt

2. classify triangles by angle types. - correlation: G.CO.C.11 3. construct an equilateral triangle. - correlation: G.CO.C.14	Objective 3: U6L1: Classifying Triangles
Lesson 2: Angle Bisectors	
Lesson Objectives - identify angle bisectors of triangles. - correlation: G.CO.C.11 - define incenter and apply its properties. - correlation: G.CO.C.11	Assessments - Objective 1: U6A2: Angle and Perpendicular Bisectors - Objective 2: U6A2: Angle and Perpendicular Bisectors
Lesson 3: Perpendicular Bisectors	
Lesson Objectives - identify perpendicular bisectors of triangles. - correlation: G.CO.C.11 - define circumcenter of a triangle and apply its properties. - correlation: G.CO.C.11	Assessments - Objective 1: U6A2: Angle and Perpendicular Bisectors - Objective 2: U6A2: Angle and Perpendicular Bisectors
Lesson 4: Medians and Altitudes	
Lesson Objectives - define median, centroid, altitude, and orthocenter. - correlation: G.CO.C.11 - identify and construct medians and altitudes in a given triangle. - correlation: G.CO.C.11	Assessments - Objective 1: U6A3: Medians and Altitudes - Objective 2: U6A3: Medians and Altitudes
Lesson 5: Triangle Proofs Part 1	
Lesson Objectives - prove the interior angles of a triangle sum to 180°. - correlation: G.SRT.B.4 - prove the base angles of an isosceles triangles are congruent to each other. - correlation: G.SRT.B.4	Assessments - Objective 1: U6A4: Triangle Proofs Part 1 Quiz - Objective 2: U6A4: Triangle Proofs Part 1 Quiz

Lesson 6: Triangle Proofs Part 2	
Lesson Objectives 1. prove the triangle midsegment theorem. ○ correlation: G.SRT.B.4 2. prove that if all the medians of a triangle are drawn, they will intersect at a single point. ○ correlation: G.SRT.B.4	Assessments ● Objective 1: U6A5: Triangle Proofs Part 2 ● Objective 2: U6A5: Triangle Proofs Part 2

Unit 7: Congruent Triangles

Idaho Standards	Unit Objectives
G.SRT.B.5: Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. G.CO.B.8: Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent. G.CO.B.9: Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions. G.CO.C.10: Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent, and conversely prove lines are parallel; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints. G.CO.C.11: Prove theorems about triangles. Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent, and conversely prove a triangle is isosceles; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.	● determine the values of exterior and interior angles of triangles. ● apply triangle congruence and corresponding parts of congruent triangle. ● apply properties of isosceles and equilateral triangles. ● draw conclusions about triangles based on congruence postulates and statements.

Lesson 1: Triangle Sums	
Lesson Objectives - find the values of missing interior angles in triangles. - correlation: G.SRT.B.5 - determine the values of exterior angles of triangles. - correlation: G.SRT.B.5	Assessments - Objective 1: U7A1: Triangle Sums Quiz - Objective 2: U7A1: Triangle Sums Quiz
Lesson 2: Triangle Congruence Using SSS, SAS, ASA, and AAS	
Lesson Objectives - use properties of triangle congruence. - correlation: G.SRT.B.5 - apply the SSS Postulate to prove two triangles are congruent. - correlation: G.CO.B.9 - apply the SAS Postulate to prove two triangles are congruent. - correlation: G.CO.B.9 - use the ASA Congruence Postulate and the AAS Congruence Theorem. - correlation: G.CO.B.9	Assessments - Objective 1: U7A2: Triangle Congruence Quiz - Objective 2: U7A2: Triangle Congruence Quiz - Objective 3: U7A2: Triangle Congruence Quiz - Objective 4: U7A2: Triangle Congruence Quiz
Lesson 3: Corresponding Parts of Congruent Triangles	
Lesson Objectives - identify corresponding parts of congruent triangles. - correlation: G.CO.B.8 - use CPCTC to prove angles and side lengths are congruent. - correlation: G.CO.B.8	Assessments - Objective 1: U7A3: CPCTC Quiz - Objective 2: U7A3: CPCTC Quiz
Lesson 4: Properties of Equilateral Triangles	
Lesson Objectives - apply the properties of equilateral triangles. - correlation: G.CO.C.10	Assessments Objective 1: U7A4: Properties of Equilateral Triangles Quiz, U7D1: Create a Triangle Problem for a Classmate

Lesson 5: Properties of Isosceles Triangles	
Lesson Objectives 1. apply the properties of isosceles triangles. - o correlation: G.CO.C.10 2. use the Base Angles Theorem. - o correlation: G.CO.C.11	Assessments • Objective 1: U7A5: Properties of Isosceles Triangles Quiz, U7D1: Create a Triangle Problem for a Classmate • Objective 2: U7A5: Properties of Isosceles Triangles Quiz, U7D1: Create a Triangle Problem for a Classmate

Unit 8: Similarity

Idaho Standards	Unit Objectives
G.MG.A.4: Use dimensional analysis for unit conversions to confirm that expressions and equations make sense. G.SRT.A.1: Verify experimentally the properties of dilations given by a center and a scale factor. G.SRT.A.1.a: A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged. G.SRT.A.1.b: The dilation of a line segment is longer or shorter in the ratio given by the scale factor. G.SRT.A.2: Use the definition of similarity to decide if two given figures are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides. G.SRT.A.3: Use the properties of similarity transformations to establish the Angle-Angle (AA) criterion for two triangles to be similar. G.SRT.B.4: Prove theorems about triangles. Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity. G.SRT.B.5: Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.	• write and solve proportions to find missing side lengths of polygons. • determine similarity by calculating scale factor. • prove triangles similar using similarity theorems.

G.CO.A.2: Represent transformations in the plane and describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not. G.CO.B.7: Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.	
Lesson 1: Defining Similarity	
Lesson Objectives 1. define similarity and identify similar figures. ○ correlation: G.SRT.A.2	Assessments ● Objective 1: U8A1: Defining Similarity Quiz
Lesson 2: Ratios and Proportions	
Lesson Objectives 1. define ratio and proportion. ○ correlation: G.SRT.A.2 2. use proportions to find missing side lengths of similar triangles. ○ correlation: G.SRT.A.1.b	Assessments ● Objective 1: U8A2: Ratios and Proportions Quiz ● Objective 2: U8A2: Ratios and Proportions Quiz
Lesson 3: Dilations by Scale Factor	
Lesson Objectives 1. perform dilations on objects in the coordinate plane. ○ correlation: G.SRT.A.1.a 2. identify the scale factor used to perform a given dilation. ○ correlation: G.SRT.A.1	Assessments ● Objective 1: U8A3: Dilations By Scale Factor Quiz ● Objective 2: U8A3: Dilations By Scale Factor Quiz
Lesson 4: AA Similarity in Triangles	
Lesson Objectives 1. determine whether triangles are similar.	Assessments ● Objective 1: U8A4: AA Similarity Quiz

○ correlation: G.CO.B.7 2. apply and use AA for similar triangles. ○ correlation: G.SRT.A.3 3. solve problems involving similar triangles. ○ correlation: G.CO.A.2	● Objective 2: U8A4: AA Similarity Quiz ● Objective 3: U8A4: AA Similarity Quiz
Lesson 5: Proofs--Similar Triangles	
Lesson Objectives 1. prove the Angle-Angle, Side-Side-Side and Side-Angle-Side similarity theorems. ○ correlation: G.SRT.A.3 2. prove the Pythagorean Theorem by using similar triangles. ○ correlation: G.SRT.B.4	Assessments ● Objective 1: U8A5: Triangle Similarity Proofs Quiz ● Objective 2: U8A5: Triangle Similarity Proofs Quiz
Lesson 6: Modeling With Similar Triangles	
Lesson Objectives 1. write and solve proportions given a real world situation. ○ correlation: G.SRT.B.4, G.MG.A.4 2. use congruence and similarity criteria for triangles to solve problems and prove relationships. ○ correlation: G.SRT.B.5	Assessments ● Objective 1: U8A6: Modeling With Similar Triangles Quiz ● Objective 2: U8A6: Modeling With Similar Triangles Quiz

Geometry B

Unit 1: Right Triangle Trigonometry Part 1

Idaho Standards	Unit Objectives
G.SRT.C.6: Demonstrate understanding that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles. G.SRT.C.8: Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.	● define trigonometric ratios. ● identify the trigonometric ratio for a given right triangle. ● solve for missing sides and angles in a right triangles.

Lesson 1: The Language of Trigonometry	
Lesson Objectives - define trigonometric ratios. - correlation: G.SRT.C.6 - identify the trigonometric ratio for a given right triangle. - correlation: G.SRT.C.6	Assessments - Objective 1: U1A1: The Language of Trigonometry Quiz - Objective 2: U1A1: The Language of Trigonometry Quiz
Lesson 2: Special Right Triangles	
Lesson Objectives - calculate missing side lengths in special right triangles. - correlation: G.SRT.C.8	Assessments Objective 1: U1A2: Special Right Triangles Quiz
Lesson 3: Solving for Sides	
Lesson Objectives - solve for missing sides in a right triangle using trigonometric ratios. - correlation: G.SRT.C.8	Assessments Objective 1: U1A3: Solving for Sides Quiz
Lesson 4: Solving for Angles	
Lesson Objectives - solve for missing angles in a right triangle using inverse trigonometric functions. - correlation: G.SRT.C.8	Assessments Objective 1: U1A4: Solving for Angles Quiz

Unit 2: Right Triangle Trigonometry Part 2

Idaho Standards	Unit Objectives
G.SRT.C.7: Explain and use the relationship between the sine and cosine of complementary angles. G.SRT.C.8: Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems. G.MG.A.4: Use dimensional analysis for unit conversions to confirm that expressions and equations make sense.	- calculate missing sides and angles in modeling problems involving right triangles. - find missing angles using properties of the sine and cosine of complementary angles. - model real world problems using the Pythagorean

	Theorem.
Lesson 1: Modeling With Right Triangles	
Lesson Objectives - calculate missing sides and angles in modeling problems involving right triangles. - correlation: G.SRT.C.8	Assessments Objective 1: U2A1: Modeling With Right Triangles Quiz, U2D1: Right Triangle Talk
Lesson 2: Sine and Cosine of Complementary Angles	
Lesson Objectives - find missing angles using properties of the sine and cosine of complementary angles. - correlation: G.SRT.C.7	Assessments Objective 1: U2A2: Sine and Cosine of Complementary Angles Quiz
Lesson 3: Applying the Pythagorean Theorem	
Lesson Objectives - model real world problems using the Pythagorean Theorem. - correlation: G.SRT.C.8, G.MG.A.4	Assessments Objective 1: U2A3: Applying the Pythagorean Theorem Quiz

Unit 3: General Triangle Trigonometry

Idaho Standards	Unit Objectives
G.SRT.D.9: (+) Derive the formula $A = (\frac{1}{2})ab\sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side. G.SRT.D.10: (+) Prove the Laws of Sines and Cosines and use them to solve problems. G.SRT.D.11: (+) Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems; resultant forces).	- calculate missing side lengths and angles of triangles using the Law of Sines or the Law of Cosines. - calculate the area of a triangle using $A = (\frac{1}{2})ab\sin(C)$.

Lesson 1: Prove the Law of Sines	
Lesson Objectives - demonstrate how the Law of Sines is derived. - correlation: G.SRT.D.10	Assessments Objective 1: U3A1: Prove the Law of Sines Quiz
Lesson 2: Prove the Law of Cosines	
Lesson Objectives - derive the proof for the Law of Cosines. - correlation: G.SRT.D.10	Assessments Objective 1: U3A2: Prove the Law of Cosines Quiz
Lesson 3: Solving Triangles with Law of Sines	
Lesson Objectives - calculate missing side lengths of triangles using the Law of Sines. - correlation: G.SRT.D.11 - calculate missing angles in triangles using the Law of Sines. - correlation: G.SRT.D.11	Assessments - Objective 1: U3A3: Solving Triangles with Law of Sines Quiz - Objective 2: U3A3: Solving Triangles with Law of Sines Quiz
Lesson 4: Solving Triangles with Law of Cosines	
Lesson Objectives - calculate side lengths using the Law of Cosines. - correlation: G.SRT.D.11 - calculate angle measures using the Law of Cosines. - correlation: G.SRT.D.11	Assessments - Objective 1: U3A4: Solving Triangles with Law of Cosines Quiz - Objective 2: U3A4: Solving Triangles with Law of Cosines Quiz
Lesson 5: Area of a Triangle	
Lesson Objectives - derive the formula $A = (\frac{1}{2})ab\sin(C)$ for the area of a triangle. - correlation: G.SRT.D.9 - calculate the area of a triangle. - correlation: G.SRT.D.9	Assessments - Objective 1: U3A5: Area of a Triangle Quiz - Objective 2: U3A5: Area of a Triangle Quiz

Unit 4: Quadrilaterals

Idaho Standards	Unit Objectives
G.GPE.B.4: Use coordinates to prove simple geometric theorems algebraically, including the distance formula and its relationship to the Pythagorean Theorem. G.GPE.B.7: Use coordinates to compute perimeters of polygons and areas of triangles and rectangles (e.g., using the distance formula). G.CO.C.12: Prove theorems about parallelograms. Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals. G.CO.C.12.a: Prove theorems about polygons. Theorems include: the measures of interior and exterior angles; apply properties of polygons to the solutions of mathematical and contextual problems. G.MG.A.1: Use geometric shapes, their measures, and their properties to describe objects.	• identify and apply the properties of polygons and quadrilaterals. • classify and identify quadrilaterals. • prove properties of quadrilaterals. • use coordinates to compute perimeter and area of polygons.
Lesson 1: Defining Quadrilaterals	
Lesson Objectives 1. identify and classify quadrilaterals. ◦ correlation: G.MG.A.1	Assessments • Objective 1: U4A1: Defining Quadrilaterals Quiz, U4D1: Create a Shape
Lesson 2: Prove Properties of Parallelograms Part 1	
Lesson Objectives 1. prove the opposite sides of parallelograms are congruent. ◦ correlation: G.GPE.B.4 2. prove the opposite angles of parallelograms are congruent.	Assessments • Objective 1: U4A2: Prove Properties of Parallelograms Quiz • Objective 2: U4A2: Prove Properties of Parallelograms Quiz

○ correlation: G.CO.C.12	
Lesson 3: Prove Properties of Parallelograms Part 2	
Lesson Objectives 1. prove the diagonals of a parallelogram bisect each other. ○ correlation: G.CO.C.12 2. prove rectangles are parallelograms with congruent diagonals. ○ correlation: G.CO.C.12	Assessments ● Objective 1: U4A2: Prove Properties of Parallelograms Quiz ● Objective 2: U4A2: Prove Properties of Parallelograms Quiz
Lesson 4: Solving Parallelograms	
Lesson Objectives 1. solve for missing angles, side lengths, and bisector length in parallelograms. ○ correlation: G.CO.C.12.a	Assessments ● Objective 1: U4A3: Solving Parallelograms
Lesson 5: Perimeter and Area in the Coordinate Plane	
Lesson Objectives 1. use coordinates to compute perimeters of polygons. ○ correlation: G.GPE.B.7 2. use coordinates to compute area of triangles and rectangles. ○ correlation: G.GPE.B.7	Assessments ● Objective 1: U4A4: Perimeter and Area in the Coordinate Plane Quiz ● Objective 2: U4A4: Perimeter and Area in the Coordinate Plane Quiz
Lesson 6: Prove Rectangles in the Coordinate Plane	
Lesson Objectives 1. determine if quadrilaterals are rectangles in the coordinate plane. ○ correlation: G.GPE.B.4	Assessments ● Objective 1: U4A5: Prove Rectangles in the Coordinate Plane Quiz

Unit 5: Circles

Idaho Standards	Unit Objectives
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G.C.A.1: Prove that all circles are similar. G.C.A.2: Identify and describe relationships among inscribed angles, radii, and chords. Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle. G.C.B.5: Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector. G.GPE.A.1: Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation. G.GPE.B.4: Use coordinates to prove simple geometric theorems algebraically, including the distance formula and its relationship to the Pythagorean Theorem.	• identify and define parts of a circle. • calculate arc lengths and areas of sectors of circles. • calculate the measure of inscribed and circumscribed angles. • write and use equations of circles • prove a point lies on or off the circle.
Lesson 1: Circle Definitions and Similarity	
Lesson Objectives 1. identify and define parts of a circle. ◦ correlation: G.C.A.2 2. prove all circles are similar to each other. ◦ correlation: G.C.A.1	Assessments • Objective 1: U5A1: Circle Definitions and Similarity Quiz • Objective 2: U5A1: Circle Definitions and Similarity Quiz
Lesson 2: Arc Length and Sector Area	
Lesson Objectives 1. calculate arc lengths and area of sectors of circles. ◦ correlation: G.C.B.5	Assessments • Objective 1: U5A2: Arc Length and Sector Area Quiz
Lesson 3: Relationships in Circles	
Lesson Objectives 1. calculate the measure of inscribed and circumscribed angles. ◦ correlation: G.C.A.2	Assessments • Objective 1: U5A3: Relationships in Circles Quiz

Lesson 4: Equation of a Circle	
Lesson Objectives 1. identify the radius and center of a circle from the standard form of a circle. ○ correlation: G.GPE.A.1 2. write the equation of a circle when given the center and the radius. ○ correlation: G.GPE.A.1 3. derive the standard form of the circle given the expanded form of the circle. ○ correlation: G.GPE.A.1	Assessments ● Objective 1: U5A4: Equation of a Circle Quiz ● Objective 2: U5A4: Equation of a Circle Quiz, ● Objective 3: U5A4: Equation of a Circle Quiz
Lesson 5: Proving Circles in the Coordinate Plane	
Lesson Objectives 1. prove a point lies on or off the circle. ○ correlation: G.GPE.B.4	Assessments ● Objective 1: U5A5: Proving Circles in the Coordinate Plane Quiz

Unit 6: Circle Constructions

Idaho Standards	Unit Objectives
G.C.A.2: Identify and describe relationships among inscribed angles, radii, and chords. Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle. G.C.A.3: Prove properties of angles for a quadrilateral and other polygons inscribed in a circle, by constructing the inscribed and circumscribed circles of a triangle. G.C.A.4: (+) Construct a tangent line to a circle from a point outside the given circle. G.C.B.5: Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define	● solve for segment lengths in relation to circles, chords, secants and tangents. ● convert angle measures between radians and degrees. ● construct an inscribed and circumscribed circles of a triangle. ● perform constructions in relation to circles. ● derive the formula for arc length and area of a sector of a circle.

the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector. G.CO.D.14: Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.	
Lesson 1: Segment Lengths and Circles	
Lesson Objectives 1. solve for segment lengths in relation to circles, chords, secants and tangents. ○ correlation: G.C.A.2	Assessments ● Objective 1: U6A1: Segment Lengths and Circles Quiz. - U6D1: A Story About Circles
Lesson 2: Radians	
Lesson Objectives 1. convert degree measure to radian measure. ○ correlation: G.C.B.5 2. convert radian measure to degree measure. ○ correlation: G.C.B.5	Assessments ● Objective 1: U6A2: Radians Quiz, U6D1: A Story About Circles ● Objective 2: U6A2: Radians Quiz, U6D1: A Story About Circles
Lesson 3: Inscribed and Circumscribed Circles of Triangles	
Lesson Objectives 1. construct an inscribed circle of a triangle. ○ correlation: G.C.A.3 2. construct a circumscribed circle of a triangle. ○ correlation: G.C.A.3	Assessments ● Objective 1: U6A3: Inscribed and Circumscribed Constructions ● Objective 2: U6A3: Inscribed and Circumscribed Constructions
Lesson 4: Constructions	
Lesson Objectives 1. construct a tangent to a circle. ○ correlation: G.C.A.4 2. construct a square, equilateral triangle and regular hexagon inscribed in a circle. ○ correlation: G.CO.D.14	Assessments ● Objective 1: U6A4: Constructions Practice ● Objective 2: U6A4: Constructions Practice
Lesson 5: Proportionality in Circles	

Lesson Objectives - derive the formula for arc length. - correlation: G.C.B.5 - derive the formula for area of a sector. - correlation: G.C.B.5 - calculate the arc length of a circle. - correlation: G.C.B.5 - calculate the area of a sector of a circle. - correlation: G.C.B.5	Assessments - Objective 1: U6A5: Proportionality in Circles Quiz - Objective 2: U6A5: Proportionality in Circles Quiz - Objective 3: U6A5: Proportionality in Circles Quiz - Objective 4: U6A5: Proportionality in Circles Quiz
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Unit 7: Volume

Idaho Standards	Unit Objectives
G.GMD.A.3: Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems. G.GMD.B.4: Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects G.GPE.A.2: Derive the equation of a parabola given a focus and directrix.	- calculate the surface area of a cylinder. - calculate the volume of 3D figures. - identify the 2-dimensional cross-sections that are made when 3-dimensional solids are cut by a plane. - identify the 3D object that will be formed when a given the 2D shape is rotated. - write the equation of a parabola given information about the focus and directrix.
Lesson 1: Volume and Surface Area of Cylinders	
Lesson Objectives - calculate the surface area of a cylinder. - correlation: G.GMD.A.3 - calculate the volume of a cylinder. - correlation: G.GMD.A.3	Assessments - Objective 1: U7A1: Volume and Surface Area of Cylinders Quiz - Objective 2: U7A1: Volume and Surface Area of Cylinders Quiz
Lesson 2: Volume of Cones and Pyramids	
Lesson Objectives calculate the volume of a pyramid.	Assessments Objective 1: U7A2: Volume of Cones and Pyramids Quiz

○ correlation: G.GMD.A.3 2. calculate the volume of a cone. ○ correlation: G.GMD.A.3	● Objective 2: U7A2: Volume of Cones and Pyramids Quiz
Lesson 3: Volume of Spheres	
Lesson Objectives 1. calculate the volume of a sphere. ○ correlation: G.GMD.A.3	Assessments ● Objective 1: U7A3: Volume of Spheres Quiz
Lesson 4: Relating 2D and 3D Objects	
Lesson Objectives 1. identify the 2-dimensional cross-sections that are made when 3-dimensional solids are cut by a plane. ○ correlation: G.GMD.B.4 2. identify the 3D object that will be formed when a given the 2D shape is rotated. ○ correlation: G.GMD.B.4	Assessments ● Objective 1: U7A4: Relating 2D and 3D Objects ● Objective 2: U7A4: Relating 2D and 3D Objects
Lesson 5: Parabolas	
Lesson Objectives 1. write the equation of a parabola given information about the focus and directrix. ○ correlation: G.GPE.A.2	Assessments ● Objective 1: U7A5: Parabolas Quiz

Unit 8: Modeling in Two and Three Dimensions

Idaho Standards	Unit Objectives
G.MG.1: Use geometric shapes, their measures, and their properties to describe objects. G.MG.2: Apply concepts of density based on area and volume in modeling situations. G.MG.3: Apply geometric methods to solve design problems. G.GMD.A.2: +) Give an informal argument using Cavalieri's	● identify commonly used geometric formulas and how to model problems. ● apply Cavalieri's Principle to two-dimensional and three-dimensional objects.

principle for the formulas for the volume of a sphere and other solid figures. G.GMD.A.1: Give an informal argument for the formulas for the circumference of a circle; area of a circle; volume of a cylinder, pyramid, and cone. Use dissection arguments, Cavalieri's principle, and informal limit arguments. G.GMD.B.3: Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems. G.MG.A.4: Use dimensional analysis for unit conversions to confirm that expressions and equations make sense.	• solve modeling problems involving volume and density.
Lesson 1: Modeling Problem Toolbox	
Lesson Objectives 1. identify commonly used geometric formulas. ◦ correlation: G.MG.3 2. state an approach to solving modeling problems. ◦ correlation: G.MG.3	Assessments • Objective 1: U8A1: Modeling Problems Toolbox Quiz • Objective 2: U8A1: Modeling Problems Toolbox Quiz
Lesson 2: Dissection Arguments and Cavalieri's Principle	
Lesson Objectives 1. perform dissection arguments. ◦ correlation: G.MG.1 2. apply Cavalieri's Principle to two-dimensional and three-dimensional objects. ◦ correlation: G.GMD.A.2, G.GMD.A.1	Assessments • Objective 1: U8A3: Dissection Dilemma Project, U8D1: Volume in the World Around You • Objective 2: U8A2: Cavalieri's Principle Quiz, U8A3: Dissection Dilemma Project
Lesson 3: Simple Modeling Problems	
Lesson Objectives 1. identify geometric solids in the real world. ◦ correlation: G.MG.1, G.MG.A.4 2. solve volume modeling problems. ◦ correlation: G.GMD.B.3	Assessments • Objective 1: U8A4: Simple Modeling Problems Quiz • Objective 2: U8A4: Simple Modeling Problems Quiz, U8D1: Volume in the World Around You
Lesson 4: Complex Modeling Problems	
Lesson Objectives	Assessments

1. solve modeling problems involving density.
 - correlation: G.MG.2, G.MG.A.4

- Objective 1: U8A5: Complex Modeling Problems Quiz