



Independent School District of Boise City Curriculum Map

Intermediate Geometry

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Scope and Sequence Summary

Math Vocabulary	<i>Ongoing</i>
Tools of Geometry	3 weeks
Investigating Geometric Figures	3 weeks
Triangle Relationships	2 weeks
Planar Measurement	3 weeks
Spacial Measurement	3 weeks
Reasoning and Parallel Lines	2 weeks
Transformations	2 weeks
Congruent Triangles	2 weeks
Quadrilaterals	2 weeks
Similarity	4 weeks
Right Triangle Trigonometry	3 weeks
Chords, Secants and Tangents	4 weeks

Test

Window

Int. Geom. EOC	End of 1 st Semester
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Int. Geom. EOC	
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Scope and Sequence
Intermediate Geometry – Geometry, Tools For A
Changing World

Ch 1: Tools of Geometry

Ch 2: Investigating Geometric Figures

Ch 4: Triangle Relationships

Ch 5: Planar Measurement

Ch 6: Spatial Measurement

Ch 7: Reasoning and Parallel Lines

Ch 3: Transformations

Ch 8: Triangle Congruence

Ch 9: Quadrilaterals

Ch 10: Similarity

Ch 11: Right Triangle Trigonometry

Ch 12: Chords, Secants, and Tangents

Review Semester and EOC
(with scientific calculator)

Intermediate Geometry
Materials Needed for the Common Final (EOC)

Semester 1 – Scientific Calculator

Semester 2 – no eoc at this write

Intermediate Geometry Terms

Geometry

Chapter 1

Acute angle

Adjacent angles

Angle

Bisector

Collinear

Complementary angles

Congruence

Construction

Co-planar

Deductive

Reasoning

Inductive reasoning

Line

Midpoint

Obtuse angle

Opposite rays

Parallel lines

Parallel planes

Perpendicular bisector

Perpendicular lines

Plane

Point

Postulate

Quadrant

Ray

Right angle

Segment

Skew lines

Space

Straight angle

Supplementary angles

Theorem

Vertical angles

Chapter 2

Circle
Central angle
Concave
Convex
Corollary
Diameter
Equiangular
Equilateral
Exterior angle
Isometric
Isosceles trapezoid
Isosceles triangle
Kite
Major arc
Minor arc
Orthographic
Parallelogram
Polygon
Radius
Rectangle
Regular polygon
Remote interior angle
Rhombus
Right triangle
Scalene Triangle
Semicircle
Similar
Similarity ratio
Square
Trapezoid

Chapter 4

Altitude
Angle bisector
Base
Base angle
Bi-conditional
Conclusion
Concurrent lines
Conditional
Contrapositive
Converse
Hypothesis
Legs
Median
Midsegment
Negation
Perpendicular bisector
Point of concurrency
Vertex angle

Chapter 5

Apothem
Arc length
Circumference
Concentric circles
Hypotenuse
Perimeter
Pythagorean Theorem
Pythagorean triple
Sector of a circle
Segment of a circle
Special right triangles

Chapter 6

Cone
Cube
Cylinder
Edge
Faces
Great circle
Hemisphere
Lateral area
Lateral face
Net
Oblique solid
Polyhedron
Prism
Pyramid
Right Solid
Slant height
Sphere
Surface area
Vertex
Volume

Chapter 7

Alternate interior angles
Alternate exterior angles
Corresponding angles
One-point perspective
Perspective drawing
Same-side interior angles
Transversal
Two-point perspective
Vanishing point

Chapter 3

Composition
Half-turn
Glide reflection
Glide reflection symmetry
Image
Isometry
Line Symmetry
Maps
Orientation
Point Symmetry
Pre-image
Prime Notation
Pure Tessellation
Reflection
Reflection symmetry
Rotational Symmetry
Symmetry
Tessellation
Tilings
Transformation
Translation
Translational symmetry

Chapter 8

AAS congruence
ASA congruence
CPCTC congruence
H-L congruence
Included angle
Included side
SAS congruence
SSS congruence

Chapter 9

Consecutive angles
Mid-segment of a trapezoid

Chapter 10

Geometric mean

Proportion

Scale

Similarity

Chapter 11

Angle of depression

Angle of elevation

Cosine

Inverse Trigonometry

Sine

Tangent

Chapter 12

Chord

Circumscribed about

Inscribed in

Intercepted arc

Secant

Tangent to a circle

Intermediate Geometry

Performance Objectives

First Quarter:

Chapter 1 (Tools of Geometry)

- Points, Lines, and Planes
- Segments, Rays, and Lines
- Linear Equations
- Segment Length
- Angle Measure
- Constructions
- Distance Formula
- Midpoint Formula

Chapter 2 (Investigating Geometric Figures)

- Classify Triangles
- Polygon-Sum of Int. Angles
- Convex/Concave
- Equilateral/Equiangular
- Regular Polygon
- Parallel and Perpendicular Lines
- Slope
- Equation of a line through
 - two points or one point and a given slope
- Classify Quadrilaterals
- Parts of a Circle
- Arc Measure
- Congruent and Similar Figures

Chapter 4 (Triangle Relationships)

- Conditional Statements
- Isosceles Triangles
- Midsegments
- Solving Inequalities
- Triangle Inequality
- Angle Bisectors
- Perpendicular Bisectors
- Special Triangle Segments
- Concurrencies of Triangles

Second Quarter:

Chapter 5 (Measuring in a Plane)

- Perimeter and Area
- Area of Parallelogram
- Area of Triangle
- Simplify Radicals
- Pythagorean Theorem
- Special Right Triangles
- Area of Trapezoid
- Area of a Regular Polygon
- Circumference of Circle
- Arc Length
- Area of Circle,
Sector, and Segment

Chapter 6 (Measuring in Space)

- Dimensional Analysis
- Surface Area of Prisms
and Cylinders
- Surface Area of Pyramids
and Cones
- Volume of Prisms
and Cylinders
- Volume of Pyramids
and Cones
- Surface Area and Volume of
Spheres

Chapter 7 (Reasoning and Parallel Lines)

- Transversals
- Constructions
- Alternate Interior Angles
- Alternate Exterior Angles
- Corresponding Angles
- Same Side Interior Angles
- Systems of Linear Equations

Third Quarter:

Chapter 3 (Transformations)

- Reflections
- Translations
- Rotations
- Dilations
- Symmetry
- Compositions of Reflections
- Tessellations

Chapter 8 (Triangle Congruence)

- SAS Congruence
- SSS Congruence
- AAS Congruence
- ASA Congruence
- H-L Congruence
- CPCTC

Chapter 9 (Quadrilateral)

- Parallelogram Relationships
- Rhombi
- Rectangles and Squares
- Trapezoids and Kites

Fourth Quarter:

Chapter 10 (Similarity)

Ratio and Proportion
Similarity in Right Triangles
Geometric Mean
Perimeters and
 Areas of Similar Figures
Areas and Volumes of
 Similar Solids

Chapter 11 (Right Triangle Trigonometry)

Trigonometric Ratio
Inverse Trig Functions
Literal Equations
Area and Trig

Chapter 12 (Chords, Secants, and Tangents)

Tangents
Inscribe/Circumscribe
Chords and Arcs
Inscribed Angles
Angles formed by
 Chords, Secants, and Tangents
Segment Lengths

Intermediate Geometry

Content Overview

(for the teacher)

- *Chapter One-Tools of Geometry:* Emphasize memorizing vocabulary. Measuring with a protractor can be difficult for some students. Do the compass constructions. Do not stress the properties in 1.7. Students should memorize distance and midpoint formulas.
- *Chapter Two-Investigating Geometric Figures:* Emphasize memorizing vocabulary. Writing equations of parallel and perpendicular lines will require review (2.3)
- *Chapter Four-Triangle Relationships:* Lessons on proof (ex: 4.3) can be omitted. Indirect Reasoning and Loci do not need to be stressed (4.5, 4.7). Models and or constructions may be beneficial on points of concurrency.
- *Chapter Five-Measuring in the Plane:* Have students memorize area formulas and special right triangle patterns. Areas of regular polygons are difficult. Differentiate the difference between arc length and arc measure.
- *Chapter Six-Measuring in Space:* Basic surface area and volume formulas will be provided on the EOC. Composite figures are difficult.
- *Chapter Seven-Reasoning and Parallel Lines:* Omit the proofs in this chapter. Do compass constructions in lesson three. Skip lesson 7.5.
- *Chapter Three – Transformation:*
- *Chapter Eight-Proving Triangles Congruent:*
- *Chapter Nine-Quadrilaterals:* Omit the logic proofs and coordinate proofs. Stress the properties of specific quadrilaterals.
- *Chapter Ten-Similarity:* A key is getting the students to set up the proportions correctly. Skip triangle similarity proofs. Ratios of similar figures perimeter, area and volume are difficult. (10.5 & 10.6)
- *Chapter Eleven-Right Triangle Trigonometry:* Review special right triangles.
- *Chapter Twelve-Chords, Secants and Tangents:* Memorize the equation of a circle (12.1). Vocabulary is important.

	2010/11	Intermediate Geometry	Semester One
Date	Event	Lecture/Discussion Topics	Assignment
23-Aug			
24-Aug			
25-Aug		Chapter 1	Class Introduction
26-Aug		1.1 Patterns, Ind Reasoning	Pg. 7 1-12, 17-19, 32a,b
27-Aug		1.2 Points, Lines and Planes	Pg. 15 1-26,43-46
Aug-30		1.3 Seg's, Rays, Parallel Lines	Pg. 20 2-34, 37,39
Aug-31		Math toolbox – Algebra Review	Pg. 23 1-18
Sep-1		1.4 Measure Angles & Seg.	Pg. 28 1-14, 21-23
Sep-2		1.4 Measure Angles & Seg.	Pg. 28 32-35 Suppl. Angle Addition
Sep-3		1.5 Good Definitions	Pg. 35 1-20, 29-38
Sep-6	Labor Day	No School	
Sep-7		Quiz	
Sep-8		1.6 Constructions	Pg. 43 1-10
Sep-9		1.7 Deductive Reasoning	Pg. 50 1-10, 13-18, 26-31
Sep-10		1.8 Coordinate Plane	Pg. 56 2-24 Even, 29-31
Sep-13		Review	Pg. 59 (2-42) even
Sep-14		Exam 1	
Sep-15		Chapter 2	2.1 Triangles
Sep-16		2.2 Polygons	Pg. 79 1-4, 10-26 even , 40-43
Sep-17		2.3 Parallel & Perp. Lines	Pg. 86 2-24 even
Sep-20		Alg. Rev. – Writing Equations	Pg. 89 1- 16
Sep-21		Alg. Rev. – Writing Equations	Supplementary Material
Sep-22		Flex Day	
Sep-23		2.4 Classifying Quadrilaterals	Pg. 93 2-30 even
Sep-24		2.5 Circles	Pg. 99 1-36, 40, 42
Sep-27		2.6 Cong. & Similar Figures	Pg. 105 1-26, 32-37
Sep-28		Optional Section -	2.7 Isometric & Orthographic
Sep-29		Flex Day - Review	Pg. 112 1-16
Sep-30		Review	p. 117 (1-28)
Oct-1		Exam 2	
Oct-4		Chapter 4	4.1 Using Logical Reasoning
			Pg 185 2-30 even

Oct-5			4.2 Isosceles Triangles	Pg. 191 2-32 even
Oct-6			4.4 Mid-Segments of Triangles	Pg. 203 2-24 even
Oct-7	State Workshop	No School		
Oct-8	State Workshop	No School		
Oct-11			Algebra review	Pg. 212 1-27 all
Oct-12			Flex Day	
Oct-13			4.6 Triangle and Inequality	Pg. 216 2-20 even, 28-30
Oct-14			4.8 Concurrent Lines	Pg. 230 1-17 all
Oct-15			Concurrent Lab or Flex Day	Supplemental
Oct-18			Chapter 4 Review	Pg 234 1-38 all
Oct-19			Exam 4	Exam 4
Oct-20		Chapter 5	5.1 Perimeter & Area	Pg. 245 2-38 even
Oct-21			5.2 Area of Parallelograms &	Pg. 252 2-30 even
Oct-22			Algebra Review- Simplifying	Pg 255 all
Oct-25			Algebra Review-	Supplemental
Oct-26			Quiz	
Oct-27			5.3 Pythagorean Theorem	Pg. 259 2-44 even
Oct-28			5.4 Special Right Triangles	Pg. 266 1-24 all
Oct-29	End of 1st Quarter		5.5 Area of a Trapezoid	Pg 271 2-20 even
Nov-1			Flex Day	
Nov-2			Mid-Chapter 5 Test	
Nov-3			5.6 Areas of Regular Polygons	Pg. 276 2-18 even
Nov-4			Flex Day	
Nov-5	Professional Staff	No School		
Nov-8			5.7 Circ., Circum. & Arc Length	Pg. 282 2-12 even, 20-24 even
Nov-9			Flex Day	
Nov-10			5.8 Area of Circles, Segs,	Pg. 288 2-26 even
Nov-11			Chapter 5 Review	Pg. 293 1-27
Nov-12			Chapter 5 Review	Supplemental
Nov-15			Chapter 5 Exam	
Nov-16			Cumulative Review	
Nov-17		Optional Section -	6.1 Space Figures and Nets	Pg. 304 2-14 and Pg. 307 2-18
Nov-18		Chapter 6	6.2 SA of Prisms & Cylinders	Pg. 312 2-24 even
Nov-19			Flex Day	

Nov-22	Thanksgiving	No School		
Nov-23	Thanksgiving	No School		
Nov-24	Thanksgiving	No School		
Nov-25	Thanksgiving	No School		
Nov-26	Thanksgiving	No School		
Nov-29			6.3 SA of Pyramids & Cone	Pg. 321 2-28 even
Nov-30			Review of 6.2-6.3	
Dec-1			6.4 Vol. of Prisms & Cylinders	Pg. 327 2-22 even
Dec-2			6.5 Vol. of Cones & Pyramids	Pg. 333 2-22 even
Dec-3			Review of 6.2-6.5	
Dec-6			6.6 SA & Vol of Spheres	Pg. 341 2-12 even, 20, 22, 28-31
Dec-7			Review 6.1 through 6.6	Supplemental
Dec-8			Mid-Chapter 6 Test	
Dec-9			6.7 Composite Space Figures	Pg. 346 1-10
Dec-10			6.7 Composite Space Figures	Supplemental
Dec-13			Chapter 6 Review	
Dec-14			Chapter 6 Review	Pg. 354 1-36 all
Dec-15			Chapter 6 Test	
Dec-16			Unit Conversion	Pg. 307 1-19 all
Dec-17	Early Release		Flex Day	
Dec-20	X-mas Holidays			
Dec-21	X-mas Holidays			
Dec-22	X-mas Holidays			
Dec-23	X-mas Holidays			
Dec-24	X-mas Holidays			
Dec-27	X-mas Holidays			
Dec-28	X-mas Holidays			
Dec-29	X-mas Holidays			
Dec-30	X-mas Holidays			
Dec-31	X-mas Holidays			
Jan-3			7.1 Parallel Lines and Angles	Pg. 366 1-14, 30-37
Jan-4			7.2 Proving Lines Parallel	Pg. 373 1-15, 22-27
Jan-5			Algebra Review- Systems of Eq	Pg. 370 1-6
Jan-6			Algebra Review- Systems of Eq	Pg. 667 1-8

2010/11

Intermediate Geometry

Semester Two

Date	Event	Lecture/Discussion Topics	Assignment
Jan-24	District In-Service	No School	
Jan-25		Chapter 3	3.1 Reflections Pg. 128 1-17
Jan-26			3.2 Translations Pg. 135 1-15
Jan-27			3.3 Rotations Pg. 141 1-10
Jan-28			Flex Day
Jan-31			3.4 Compositions Pg. 149 1-6, 17-28
Feb-1			3.5 Symmetry Pg. 155 1-12, 19-28
Feb-2			3.7 Dilations Pg. 169 5-12, 25-27, 33-35
Feb-3			Chapter 3 Review
Feb-4			Chapter 3 Test
Feb-7		Chapter 8	8.1 SSS and SAS Pg. 409 1-4, 6-14
Feb-8			8.2 ASA and AAS Pg. 416 1-12, 14
Feb-9			8.3 Congruent Right Triangles Pg. 422 1-7, Pg 425 1-8
Feb-10			Flex Day
Feb-11			8.4 Using Cong. Tri. In Proofs Pg. 429 1-9
Feb-14			Chapter 8 Review Pg. 441
Feb-15			Chapter 8 Review
Feb-16			Chapter 8 Test
Feb-17		Chapter 9	9.1 Prop's of P-grams Pg. 451 1-10, 17-22
Feb-18			9.2 Proving Quad are P-grams Pg. 457 1-20
Feb-21	President's Day	No School	
Feb-22			9.3 Special Parallelograms Pg. 465 2-14, 22-28
Feb-23			9.4 Trapezoids & Kites Pg. 473 2-22 even
Feb-24			Flex Day
Feb-25			Chapter Review
Feb-28			Chapter Review
Mar-1			Chapter 9 Test
Mar-2			Solving Proportions Pg. 662 1-17
Mar-3		Chapter 10	10.1 Ratio, Proportion, Sim. Pg. 507 2-26 even, 31-33
Mar-4			10.2 Proving Triangles Similar Pg. 507 13-18, 26
Mar-7			10.2 Proving Triangles Similar

Mar-8			10.3 Sim. and Rt. Triangles	Pg. 514 16-19, 24-31
Mar-9			10.3 Sim. and Rt. Triangles	Supplemental
Mar-10			10.4 Prop's of Sim Triangles	Pg. 520 1-22, 28-31
Mar-11			Quiz and Flex	
Mar-14			10.4 Prop's of Sim Triangles	
Mar-15			10.5 Perim. & Areas Sim. Trian.	
Mar-16			10.5 Perim. & Areas Sim. Trian.	Pg. 527 1-15
Mar-17			10.6 Areas & Vol. of Sim. Solids	Pg. 533 1-7
Mar-18			Flex Day	
Mar-21			10.6 Areas & Vol. of Sim. Solids	Pg. 534 10-13
Mar-22			Review	Pg. 537 1-7
Mar-23			Review	Pg. 540 1-17
Mar-24			Chapter 10 Test	
Mar-25	end of 3rd quarter		Flex Day	
Mar-28	Spring Break	No School		
Mar-29	Spring Break	No School		
Mar-30	Spring Break	No School		
Mar-31	Spring Break	No School		
Apr-1	Spring Break	No School		
Apr-4		Chapter 11	11.1 Tangent Ratio	Pg. 547 1-4, 9-12, 17, 19
Apr-5			11.1 Inverse Tangent Ratio	Pg. 547 5-8, 13-16
Apr-6			11.2 Sine and Cosine	Pg. 554 1-3, 6-8, 13, 14
Apr-7			11.2 Inverse Sine and Cosine	Pg. 554 9-12, 20-23
Apr-8			Review of Trig Ratios	Supplemental
Apr-11			Flex Day	
Apr-12			11.3 Angles of Elev. & Dep.	Pg. 558 1-8
Apr-13			11.3 Angles of Elev. & Dep.	Supplemental
Apr-14			Algebra Review-Literals	Pg. 562
Apr-15			Algebra Review-Literals	Supplemental
Apr-18			11.6 Trig & Area	Pg. 576 9-16
Apr-19			11.6 Trig & Area	Supplemental
Apr-20			Chapter 11 Review	Pg. 579 1-29
Apr-21			Chapter 11 Review	
Apr-22			Chapter 11 Test	

Apr-25			ISAT Testing/Flex Day	
Apr-26			ISAT Testing/Flex Day	
Apr-27		Chapter 12	12.1 Circles & the Coordinate	Pg. 588 2-18 even, 22-30 even
Apr-28			12.1 Circles & the Coordinate	
Apr-29			12.2 Properties of Tangents	Pg. 596 1-9
May-2			12.2 Properties of Tangents	
May-3			12.3 Prop's of Chords	Pg. 603 2-16 even
May-4			12.3 Prop's of Arcs	
May-5			Review of 12.1-12.3	
May-6			Flex Day	
May-9			12.4 Inscribed Angles	Pg. 610 1-10, 24, 26
May-10			12.4 Inscribed Angles	
May-11			Mid-Chapter 12 Test	
May-12			12.5 angles formed by Chords &	Pg. 617 1-9, 16-18
May-13			12.5 angles formed by Chords &	
May-16			12.6 Circles and Lengths of	Pg. 623 1-14
May-17			12.6 Circles and Lengths of	
May-18			Chapter 12 Review	
May-19			Chapter 12 Review	
May-20			Chapter 12 Test	
May-23			EOC Review	
May-24			EOC Review	
May-25			EOC Review	
May-26			EOC Review	
May-27			EOC Review	
May-30	Memorial Holiday	No School		
May-31			EOC Review	
Jun-1	Semester Test			
Jun-2	Semester Test			
Jun-3	Semester Test			

**Intermediate Geometry
Similar Problem List (EOC)
Semester 1**

(The number of review questions does not reflect the number of test questions)

Intermediate Geometry

Semester 1

revised 6/10/09

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61	31	
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73	27, 28	
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80	14 - 16	
89	1-16	
100	39	
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186	13-16	
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