

INSTRUCTIONAL GUIDE IRVING INDEPENDENT SCHOOL DISTRICT
Geometry 2003-04

1st Six Weeks

Number of class periods	LEARNING OBJECTIVE	PRIMARY RESOURCE	TEXT REF	Cogn Tutor	SUPPLEMENTARY RESOURCES	TEK	TAKS Obj
2	1. Learn rules and class procedures Do activity...”Riddles with Holes”	TexTEAM Activity Riddles with Holes	2-1			b3D b3E b1A	
2	2. Graph ordered pairs on a coordinate plane and identify collinear points.	TEXTEAM Transformation Activities	1-1		Textbook	d2A e3A	7
2	3. Identify and model basic points, lines, and planes postulates	Playdough and Pick up Sticks Activity Study Guide/Practice Sec 1.2/2.2	1-2 2-2		Textbook	d2A b1A	7
2	4. Solve problems by using formulas including finding the maximum area of a rectangle for a given perimeter	Dot Paper activity...variation on the TexTEAM activity	1-3		Textbook Centimeter Cubes	d2C	7
2	5. Find the distance between 2 points on a number line and on a coordinate plane using the distance formula and the Pythagorean theorem	TEXTEAM Activity Geometry on the Geoboard	1-4		Dot Paper Spaghetti TAKS Formula Chart Textbook	d2C b1A	7
1	Algebra 1/Geometry Connections Review						
2	Review Test Chapter 1:1-4 and Chapter 2:1-2 Jump Start - midpoint formula						
2	6. Find the midpoint of a segment and verify segment relationships	Textbook Patty Paper	1-5 2-5		Patty Paper Geometry	d2C b1A	7
2	7. Identify and classify angles, use the Angle Addition Postulate, identify and use congruent angles and the angle bisector	Textbook Patty Paper	1-6		Patty Paper Geometry	b4A e3A b1A	6
2	8. Identify and use adjacent, vertical, complementary, supplementary, and linear pairs of angles, and perpendicular lines to solve problems and prove statements	Study Guide/Practice Sec 1.7/2.6	1-7 2-6		Textbook	b4A b1A	6
1	Review Algebra 1/Geometry Connections						

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1st Six Weeks (cont)

Number of class periods	LEARNING OBJECTIVE	PRIMARY RESOURCE	TEXT REF	Cogn Tutor	SUPPLEMENTARY RESOURCES	TEK	TAKS Obj
1	Test Chapter 1:5-7 and Chapter 2:5-6						
2	9. Identify situations as using inductive or deductive reasoning and use deductive reasoning to make conclusions	TexTEAM inductive and deductive reasoning activity Picture Proofs Making Conclusions	2-1			b1A b3A	
2	10. Use deductive and inductive reasoning to make conclusions	Logic Puzzle Inductive/Deductive Reasoning				b3D	
2	11. Solve problems by drawing a diagram, identify the relationships between two lines or between two planes, and name angles formed by a pair of lines and a transversal	Study Guide/Practice Sec 3.1/3.2	3-1 3-2		Textbook		

**Project Suggestions: Coordinate Graph with Real Pictures of Geometric Representations
Create a dot-to-dot picture using transformational directions
Create a tessellation**

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2nd Six Weeks

Number of class periods	LEARNING OBJECTIVE	PRIMARY RESOURCE	TEXT REF	Cogn Tutor	SUPPLEMENTARY RESOURCES	TEK	TAKS Obj
2	12. Find the slopes of lines and use the slope to identify parallel and perpendicular lines	Study Guide 3.3	3-3		Textbook	d2B	
2	13. Recognize angle conditions that produce parallel lines, and prove two lines are parallel based on given angle relationships	Study Guide/Practice 3.4	3-4		Textbook	c1A	6
1	Review Algebra 1/Geometry Connections						7
1	Test Chapter 3: 1-5						
2	14. Identify the parts of triangles and classify triangle by their parts, and name and label corresponding parts of congruent triangles	Study Guide/Practice 4.1/4.3	4-1 4-3		Textbook	c1A	6
2	15. Apply the Angle Sum Theorem and the Exterior Angle Theorem	Paper tearing activity Study Guide/Practice 4.2	4-2		Textbook	C1A	6
2	16. Identify and use medians, altitudes, angle bisectors, and perpendicular bisectors in a triangle	Selected Problems from Textbook Paper folding	5-1			b2A e2B	
2	17. Apply the triangle inequality theorem and review	Selected problems from textbook Straw activity	5-5			c1A	
1	Review Algebra 1/ Geometry Connections						
1	Test Chapter 4:1-3 and Chapter 5:1,5						
2	18. Determine which postulates work to determine triangle congruence, and use those postulates to prove two triangles are congruent	TexTEAM Sandwich Shop Activity	4-4 4-5 5-2		Textbook	e3A b3B b3C e3B	6
2	18 (cont) Use the triangle congruence postulates and CPCTC to prove triangles and their corresponding parts to be congruent	TexTEAM Sandwich Shop Activity	4-4 4-5 4-6		Textbook	b3B b3C e3A e3B	6

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2	Use properties of isosceles and equilateral triangles to solve problems and to prove congruence of triangles	Selected problems from textbook p. 227 #45,46,47	4-6			b3B b3C e3A e3B	
2	Recognize and apply the properties of a parallelogram and use those properties to ensure a quadrilateral is a parallelogram	Study Guide/Practice 6.1/6.2 Textbook p. 296 #27-35 p. 302 #21-26 p. 303 #39-40	6-1 6-2		Textbook	c1A e3A b3B b3C	
2	Recognize and apply the properties of a rectangle	Study Guide/Practice 6.3 p. 311 #37-38	6-3		Textbook	c1A b3B	

Project Suggestions: Create a city using parallel lines, transversals, and angle relationships
Create an optical illusion line design involving parallel and perpendicular lines
Create a Sierpinski Triangle or a variation (p. 378)

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3rd Six Weeks

Number of class periods	LEARNING OBJECTIVE	PRIMARY RESOURCE	TEXT REF	Cogn Tutor	SUPPLEMENTARY RESOURCES	TEK	TAKS Obj
2	Recognize and apply the properties of squares and rhombi	Study Guide/Practice 6.4	6-4		Textbook	c1A b3B	
2	Recognize and apply the properties of trapezoids	Study Guide/Practice 6.5	6-5		Textbook	c1A b3B	6
2	Recognize and use ratios and proportions; identify and solve problems with similar figures	Study Guide 7.1/7.2 p. 350 #6-12 p. 351 #38-30 p. 352 #32	7-1 7-2		Textbook	c1A f1B	
1	Review Algebra 1/Geometry Connections	Graphing Translations Perimeter and Area					
1	Test Chapter 6: 1 – 5						
1	Identify and solve problems with similar triangles	Study Guide 7.3	7-3		Textbook	c1A f1B	6,8
3	Use proportional parts of triangle to solve problems	p. 366 #8-12 p. 367 #18-29 p. 368 #39 Study Guide/Practice Master 7.4	7-4			c1A e2B f1B f1C	6,8
2	Recognize and use proportional relationships of corresponding parts of similar triangle and review	Selected problems from textbook p. 376 #43,45	7-5			c1A e2B f1B f1C	8
2	Dilations	Glencoe McGraw/Hill Mathematics Course 3 pp. 370-373	13.8		Various website: see objective page in extended guide		
2	Review and Test Chap 7 : 1-5						6
	Find the geometric mean between two numbers and to solve problems involving relationships between parts of a triangle and the altitude to its hypotenuse	TEXTEAM Activity – Pythagorean Theorem Textbook p.401 #13 p. 403 #43-44 Study Guide/Practice	8.1		Construction Activity	Ge1C Gc1A Gf1C	6

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4th Six Weeks

Number of class periods	LEARNING OBJECTIVE	PRIMARY RESOURCE	TEXT REF	Cogn Tutor	SUPPLEMENTARY RESOURCES	TEK	TAKS Obj
4	Use the properties of 30-60-90 triangles to solve for unknowns	Textbook pp 408-410 #1-28 Study Guide/Practice	8-2			C1C	
	Review and Test Chapter 8: 1-2						
2	Identify and name polygons, find the sum of the measures of interior and exterior angles of convex and regular polygons, and to solve problems involving angle measures of polygons	Textbook pp. 518-520 #1-18, 46-49 Study Guide	10-1		ESCHER books	C1A	6
1	Find the area of parallelograms	Study Guide/Practice	10-3		TEXTEAM Dot paper activity	E1A	8
2	Find areas of triangles, rhombi, and trapezoids	Textbook #6-12, 17-25 Study Guide/Practice	10-4		TEXTEAM Dot paper activity	E1A	8
2	Review and Test Chapter 10: 1, 3-4						
1	Use top, front , side, and corner views of three-dimensional solids to make models		11.1			Gd1C	7
2	Explore the properties of 3-dimensional solids	Understanding Math Geometry-Measurement Topic 4	11.1				
2	Make two dimensional nets for three dimensional solids and use these nets to find surface area	Textbook p. 588-589 #20-25,29,33	11.2			Gd1B	7

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4th Six Weeks cont.

2	Find the lateral area and surface area of right prisms and right cylinders	Practice Master p. 66 Textbook p. 597 #37-39	11-3			e1D	8
2	Find the lateral area and surface area of regular pyramid and right cylinder cones	Practice masters and study guide p. 604 #14-20, 27-29	11-4			e1D	8
2	Review and TEST						
2	Find the volume of right prisms and right cylinders	Textbook p. 610 – 611 #11-12, 29-31, 34-37	11-5			e1D	8
2	Review and TEST						

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5th Six Weeks

Number of class periods	LEARNING OBJECTIVE	PRIMARY RESOURCE	TEXT REF	Cogn Tutor	SUPPLEMENTARY RESOURCES	TEK	TAKS Obj
2	Find the volume of a pyramids and cones	Practice Masters p. 69	11-6			e1D	8
2	Recognize and define basic properties of spheres and, find the surface area and volume of a sphere	Practice Masters p. 70	11-7			e1D	8
2	Describe the effect on perimeter, area, and volume when the length, width, or height of a solid is changed	<u>Algebra I / Geometry Connection</u> Exploring the Effects of Changing Dimensions p. 632 #6-9 p. 633 #20-28 Understanding Math Topic Geometry Measurement Topic 9	11.8			f1D	8
3	Find the area of regular polygons	p. 547 #1-13 p. 549 #39,40,41	10.5			e1A	
3	Find the area of sectors using proportional reasoning	p. 555 #1-9 p. 556 #31-Geometer' Sketchpad	10.6			e1B	
2	Review and Test – Area of regular polygons, circles, and sectors of circles						
5	Review for TAKS						

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6th Six Weeks

Number of class periods	LEARNING OBJECTIVE	PRIMARY RESOURCE	TEXT REF	Cogn Tutor	SUPPLEMENTARY RESOURCES	TEK	TAKS Obj
3	Tessellation and/or fractal projects	Glencoe p. 522	7.6 10.2			c1B	
2	Find area, circumference, and arc length given the dimensions of a circle	p. 449 #1-13 p. 450 #32-38, 40, 43, 44, 46 p. 457 #54, 56	9.1- 9.2		Understanding Math Geometry and Measurement Unit 3	e2C e1B	
3	Use the properties of arcs, chords, and tangents to find the lengths of segments in a circle	Study Guide pp 50-51 pp. 464-465 #45-46	9.3- 9.4			e2C	
2	Recognize tangents and use properties of tangents	Study Guide p 53	9-5			e2C	
2	Find the measures of angles formed by intersecting secants and tangents in relation to intercepted arcs	Study Guide p. 54	9-6			e2C c1A	6
2	Review and Test Chapter 9:1-6						
3	Review for final exams						