8th Grade Jennings Junior High Math Pacing Guide

Unit	Missouri Learning Standards	Expectations	Pacing	Benchmark/CFA

Unit 1
Real Numbers
Part A:
Rational or
Irrational numbers
	• 7.NS.A.2.d/f
	• 8.NS.A.1.a/b/c
	• 8.EEI.A.3
	• 8.NS.A.1.d
	• 8.NS.A.2
	• 8.EEI.A.2.a/b/c
		• Integer/fraction Review
		• Decimal Expansion
		• Order of operations
		• Real Number System
		• Scientific Notation
		• Irrational numbers
		  ○ Location on # line
		  ○ Compare
		  ○ Estimate values
		• Squares & Square roots & cubes
			15 days	Benchmark #1
				Week 1
				September
				
				CFA #1
				Week 1 Oct.

Part B: Pythagorean Theorem	• 8.GM.B.6 • 8.GM.B.7 • 8.GM.B.8	• Find missing side • Word problems • Converse • distance	5 days	

Unit 2
Exponents
Integer Exponents
Scientific Notation
	• 8.EEI.A.4.a/b
	• 8.EEI.A.1
	• 8.EEI.A.3
		• Exponential Notation Properties
		  ○ Zero & negative exponents
		  ○ Product & quotient rules
		  ○ Powers
		• Scientific Notation
		  ○ X & ÷
		  ○ + & -
			12 days	CFA #2
				Week 3 Nov.

Unit 3 Algebraic Concepts Linear equations 1 variable Inequalities	• 8.EEI.C.7.a/b	• Review 1 & 2 Step equations • Review Distributive property • Multi-step variable 1 side • Multi-step variable both sides • # of solution • Equations with fractions • Write and Solve equation • Word Problems • Inequalities 2 step • Inequalities multi-step • Applications	20 days	Benchmark #2 Week 2 Dec. CFA #3 Week 3 Jan.

Unit 4
Functions, Graphs, & Linear Equations
 	
Slope and Linear functions
 	
Compare Functions Slope & Similar Triangles
 	
Scatter Plots
	• 8.F.A.1.a/b/c
	• 8.F.A.2
	• 8.F.A.3.a/b/c
	• 8.F.B.4.a/b/c
	• 8.F.B.5
	• 8.EEI.B.5.a/b
	• 8.EEI.B.6.a/b
	
	• 8.DSP.A.1
	• 8.DSP.A.2
	• 8.DSP.A.3
	• 8.DSP.A.4 a/b
		• Relations VS Functions
		• Linear vs non-linear
		• Table (find x,y)
		• Slope/ROC (types, graph)
		• Slope Formula
		• Applications
		• Graphing
		• Writing equations from graph
		• Standard Form
		  ○ Graph x & y intercepts
		• Graph & write equations
		  ○ Vertical & horizontal lines
		• Equations applications
		• Proportional or non-proportional
		• Scatter Plots: graph & interpret
		• Line of Best Fit (trend line)
		• Two-way tables
		• Relative Frequency
			30 days	CFA #4
				Week 3 Feb.

Unit 5
System of Equations
	• 8.EEI.C.8.a/b/c/d	• Solve by Graphing
		• Solve by Substitution
		  ○ 1 variable isolated
		  ○ No isolation
		• Solve by Elimination
		  ○ Common coefficient
		  ○ Uncommon
		• Applications
			12 days	Benchmark #3
				Week 1 March
				
				CFA #5
				Week 4 March

Unit 6
Congruence of Angles
 	
Angles Relationships
	• 8.GM.A.5.a/b/c/d	• Parts of Angles: Names
		  ○ Find angle by substitution
		• Basic Angle Relationships
		  ○ Vertical, adj., comp, supp.
		• Angle relationships & Algebra Equations
		  ○ Solve for x
		• Transversal
		  ○ Corresponding, supplementary
		  ○ Alternate exterior/interior
		• Triangle Sum Theorem: = 180 d.
		  ○ Exterior Sum Theorem
			14 days	CFA #6
				
				Week 3 April

		• Congruent/Similar Polygons		

Unit 7
Transformations
 	
Properties of Rigid Motion
 	
Dilation
	• 8.GM.A.1.a/b
	• 8.GM.A.2.a
	• 8.GM.A.3
	• 8.GM.A.4.a
		• Reflections
		• Translations
		• Rotation
		  ○ Application
		  ○ Cup Cake Project (modified)
		• Dilation: graph given K
		  ○ Find K given graph
		• Application
		• Sequence of Motion
			14 days	CFA #7
				Week 2 May

Unit 8
Geometry
Volume and Surface Area
	• 8.GM.C.9 a/b	• Classification 3-D figures & slicing
		• Volume prisms & cylinders (review)
		• Volume
		  ○ Cones
		  ○ pyramids
		  ○ spheres
		• Application
		• Surface Area
		  ○ Rectangular Pyramids
		  ○ Triangular Pyramids
			14 days	CFA #8
				Final
				Week 4 May