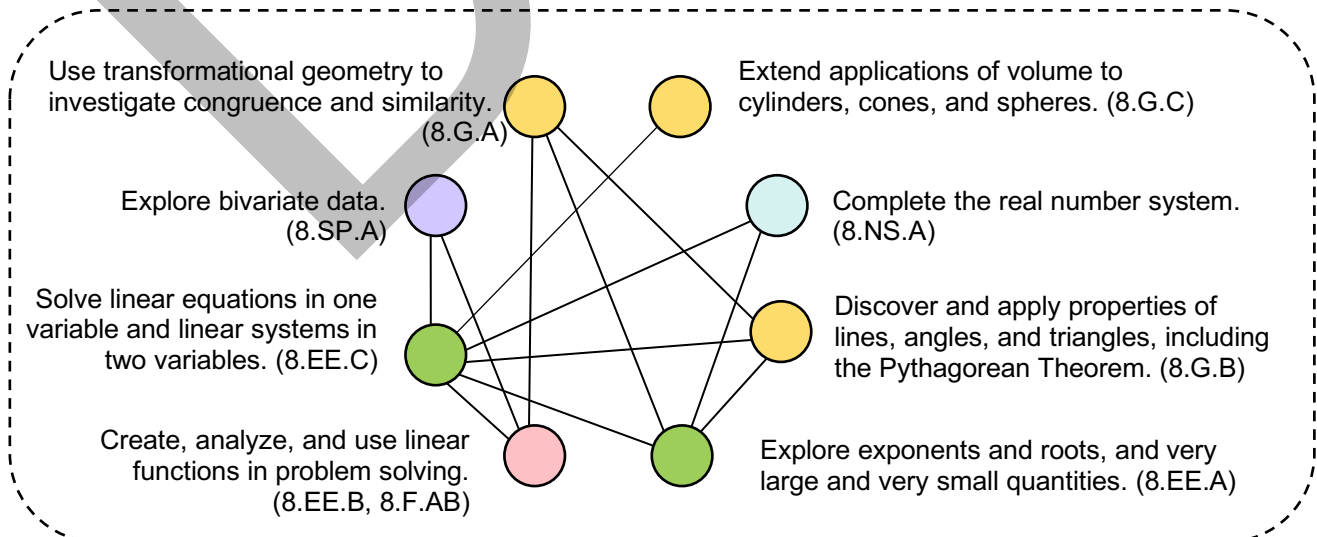


THE PROGRAM AT A GLANCE

GRADE 8: SCOPE AND SEQUENCE

Packet	Packet Name	Multi-day Lessons	Content Standards
1	Plane and Solid Figures	<ul style="list-style-type: none"> Volume of Cylinders Volume of Cones and Spheres Lines, Angles, and Triangles 	8.G.5, 9
2	Real Numbers and the Pythagorean Theorem	<ul style="list-style-type: none"> Squares and Square Roots Pythagorean Theorem Completing the Real Number System 	8.NS.1, 2 8.EE.2 8.G.6, 7, 8
3	The Algebra of Exponents and Roots	<ul style="list-style-type: none"> Exponent Facts and Rules Large and Small Quantities Exponents and Roots 	8.EE.1, 2, 3, 4
4	Introduction to Functions	<ul style="list-style-type: none"> Multiple Representations Function Representations Rate Representations 	8.F.1, 2, 3, 4, 5 8.EE.5
5	Linear Functions	<ul style="list-style-type: none"> Slope of a Line Slope-Intercept Form Applications and Extensions 	8.F.2, 3, 4, 5 8.EE.6
6	Bivariate Data	<ul style="list-style-type: none"> Numerical data Lines of Best Fit Categorical Data 	8.SP.1, 2, 3, 4 8.F.4
7	Equations and Systems 1	<ul style="list-style-type: none"> Solving Systems by Graphing Solving Equations Using Cups and Counters Solving Equations Algebraically 	8.EE.7, 8 8.F.2, 3, 4
8	Equations and Systems 2	<ul style="list-style-type: none"> Solving Equations Involving Rational Numbers Solving Systems Algebraically Algebra Applications 	8.EE.7, 8 8.F.2, 3, 4
9	Congruence	<ul style="list-style-type: none"> Translations Rotations Reflections 	8.G.1, 2, 3, 7 8.F.1
10	Similarity	<ul style="list-style-type: none"> Dilations Similar Figures Similar Triangle Relationships 	8.G.3, 4, 5, 7 8.EE.2, 6 8.F.3

GRADE 8: BIG IDEAS AND CONNECTIONS



About the Program

TOPIC ANALYSIS BY PACKET

Each MathLinks Student Packet emphasizes specific grade level content and includes distributed practice (spiral review) within its Review section. This chart shows how content topics unfold in the packet lessons and identifies distributed practice for those topics that is built in with Spiral Review. Standards that address major work of the grade are denoted with a star (*).

Short Topic Description	Topic first in Packet(s):	Topic also in Packet(s):	Spiral Review in Packet(s):	Content Standard(s)
Angle measures for lines, triangles and parallel lines	1	10	8,9	8.G.5*
Volumes of cones, cylinders, spheres	1		4,6,7,8	8.G.9
Evaluate / solve problems with square and cube roots	2	3,10	2,4,6,8,10	8.EE.2*
Explain and prove Pythagorean theorem	2	10		8.G.6*
Apply Pythagorean theorem	2	9,10	4,7,8	8.G.7*
Pythagorean theorem with coordinates	2		9	8.G.8*
Decimal expansions for rational and irrational numbers	2		5,7	8.NS.1
Locate irrational numbers on a number line	2		5,7,9	8.NS.2
Work with integer exponents	3		2,4,6,8,10	8.EE.1*
Write/compare numbers using scientific notation	3		6,8	8.EE.3*
Perform operations using scientific notation	3		6, 8	8.EE.4*
Graph proportional relationships, interpret unit rate as slope, compare representations	4		2,3	8.EE.5*
Understand and graph functions as inputs and outputs	4	9		8.F.1*
Compare function properties with different representations	4	5,7,8		8.F.2*
Interpret linear ($y=mx+b$) and nonlinear functions	4	5,7,8,10		8.F.3*
Construct function to model linear relationship	4	5,6,7,8	8	8.F.4*
Analyze graphs to qualitatively describe functions	4	5,6		8.F.5*
Derive equation of line, connect similarity and slope	5	6,10	9	8.EE.6*
Construct, interpret, describe scatter plots	6		8	8.SP.1
Fit lines to scatter plots to model data relationships	6		8	8.SP.2
Use linear model to solve problems with bivariate data	6		8	8.SP.3
Interpret bivariate categorical data with two-way tables	6		9	8.SP.4
Analyze and solve linear equations in one variable	7	8	1,2,3,4,5,6,7,8	8.EE.7ab*
Analyze and solve pairs of simultaneous linear equations	7	8	1,3,5,7,9, 10	8.EE.8.abc*
Verify experimentally properties of rigid motions	9			8.G.1abc*
Define and apply definition of congruence	9		10	8.G.2*
Describe effects of dilations and rigid motions using coordinates	9	10		8.G.3*
Explain similarity thru rigid motions and dilation	10			8.G.4*

Complete correlations to the program are located in the Correlations Section of Program information.