

Grades 6-8 Math Pathways

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Overview

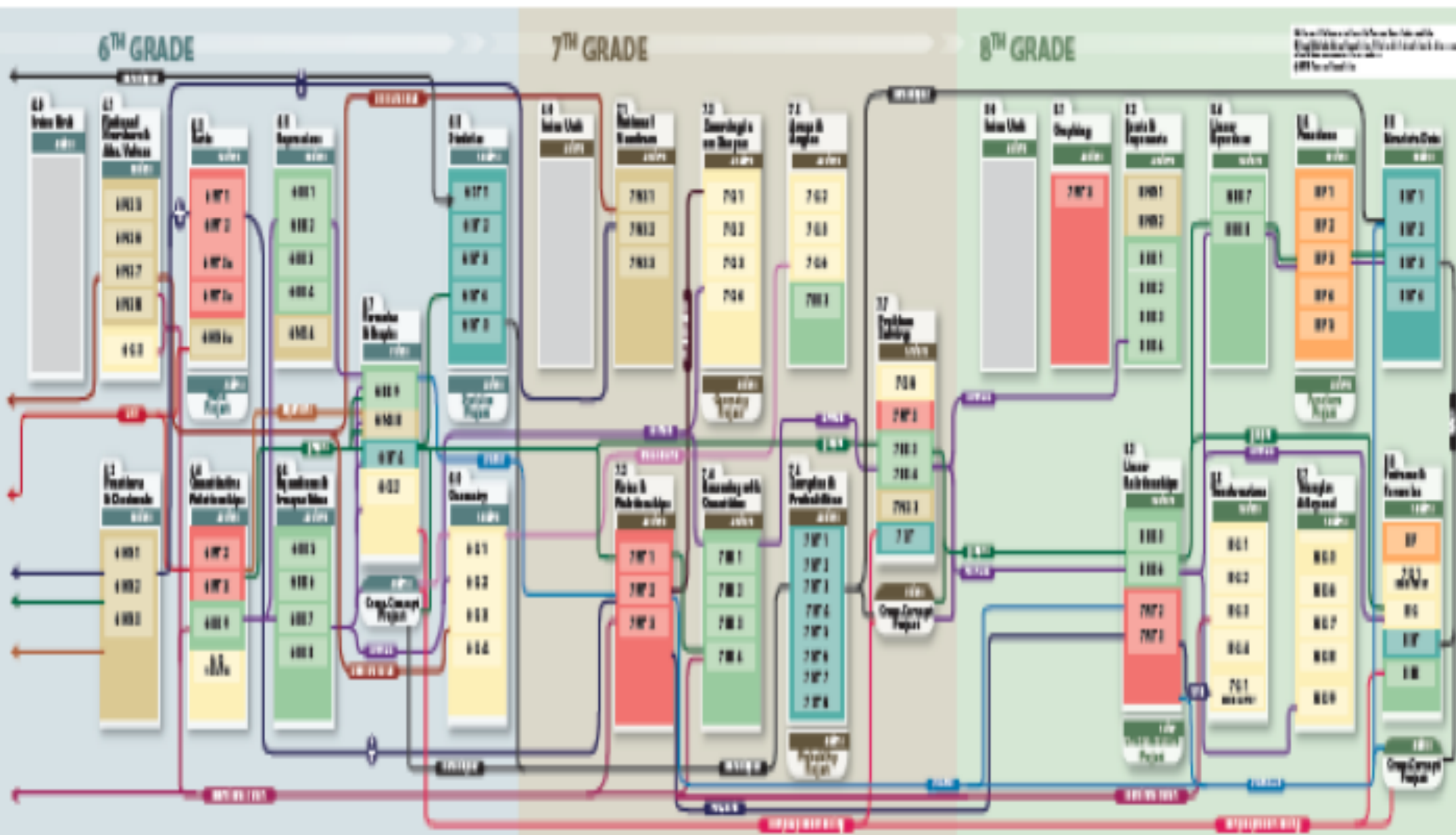
Why the update to the pathways?

Why pilot new materials?

How different are the new pathways?

Will my student still enter high school at the level of math I expect?

What's Different In Common Core?



Common Core Domains

Grade	K	1	2	3	4	5	6	7	8	Higher Mathematics Conceptual Categories
K–8 Domains	Counting and Cardinality (CC)						Ratios and Proportional Relationships (RP)		Functions (F)	Functions (F)
	Operations and Algebraic Thinking (OA)						Expression and Equations (EE)			Algebra (A)
	Number and Operations in Base Ten (NBT)						The Number System (NS)			Number and Quantity (N)
				Number and Operations—Fractions (NF)						
	Measurement and Data (MD)						Statistics and Probability (SP)			Statistics and Probability (S)
	Geometry (G)						Geometry (G)			Geometry (G)
	Modeling (★)									

Regular Pathway

	Grade 6 Course 1	Grade 7 Course 2	Grade 8 Course 3
Ratios and Proportional Relationships	Understand Ratio Concepts; Use Ratio Reasoning	Analyze Proportional Relationships	-
The Number System	Perform Fraction and Decimal Operations; Understand Rational Numbers	Perform Rational Number Operations	-
Expressions and Equations	Write, Interpret, and Use Expressions, Equations, and Inequalities	Generate Equivalent Expressions; Solve Problems Using Linear Equations and Inequalities	-
Geometry	Solve Problems Involving Area, Surface Area, and Volume	Understand Geometric Relationships and Similarity; Solve Problems Involving Angles, Surface Area, and Volume	Apply the Pythagorean Theorem
Statistics and Probability	Summarize and Describe Distributions; Understand Variability	Analyze and Compare Populations; Find Probabilities of Events	Represent and Interpret Data; Analyze Bivariate Data

Compacted Pathway

	Grade 6 Course 1+	Grade 7 Course 2 Accelerated	Grade 8 Algebra
Ratios and Proportional Relationships	Understand Ratio Concepts; Use Ratio Reasoning	-	-
The Number System	Perform Fraction and Decimal Operations; Understand Rational Numbers	-	-
Expressions and Equations	Write, Interpret, and Use Expressions, Equations, and Inequalities	-	
Geometry	Solve Problems Involving Area, Surface Area, and Volume	Understand Geometric Relationships and Similarity; Solve Problems Involving Angles, Surface Area, and Volume	Apply the Pythagorean Theorem
Statistics and Probability	Summarize and Describe Distributions; Understand Variability	Analyze and Compare Populations; Find Probabilities of Events	Represent and Interpret Data; Analyze Bivariate Data
Number and Quantity	-	Analyze Proportional Relationships; Perform Real Number Operations; Use Radicals and Integer Exponents	Use Rational Exponents; Perform Real Number Operations
Algebra	-	Generate Equivalent Expressions; Connect Proportional Relationships and Lines; Solve Problems Using Linear Equations and Inequalities	Solve Linear and Quadratic Equations; Solve Inequalities and Systems of Equations
Functions	-		Define, Evaluate, and Compare Functions; Write Sequences; Model Relationships

Advanced Pathway

	Grade 6 Advanced 1 + 2		Grade 7 Advanced 2 + Alg 1		Grade 8
Textbook	Advanced 1	Advanced 2		Algebra 1	Geometry
Ratios and Proportional Relationships	Understand Ratio Concepts; Use Ratio Reasoning; Analyze Proportional Relationships	-	-	-	
The Number System	Perform Fraction and Decimal Operations; Understand Rational Numbers; Perform Rational Number Operations	Approximate Real Numbers; Perform Real Number Operations		-	
Expressions and Equations	Write, Interpret, and Use Expressions, Equations, and Inequalities; Generate Equivalent Expressions; Solve Problems Using Linear Equations	Solve Problems Using Linear Inequalities; Use Radicals and Integer Exponents; Connect Proportional Relationships and Lines; Solve Systems of Linear Equations		-	
Geometry	Solve Problems Involving Area, Surface Area, and Volume	Understand Geometric Relationships; Solve Problems Involving Angles, Surface Area, and Volume; Understand Congruence and Similarity; Apply the Pythagorean Theorem		Apply the Pythagorean Theorem	
Statistics and Probability	Summarize and Describe Distributions; Understand Variability	Analyze and Compare Populations; Find Probabilities of Events; Analyze Bivariate Data		Represent and Interpret Data; Analyze Bivariate Data	
Number and Quantity	-	-	-	Use Rational Exponents; Perform Real Number Operations	
Algebra	-	-	-	Solve Linear and Quadratic Equations; Solve Inequalities and Systems of Equations	
Functions	-	Define, Evaluate, and Compare Functions; Model Relationships		Define, Evaluate, and Compare Functions; Write Sequences; Model Relationships	

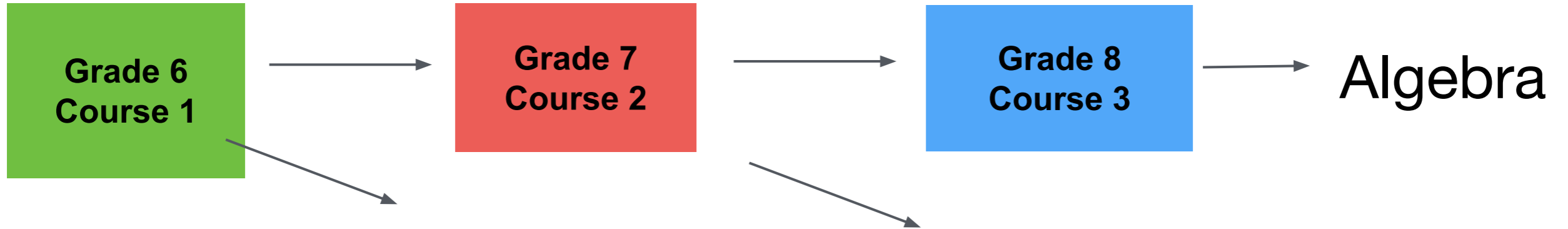
Grade 6

Grade 7

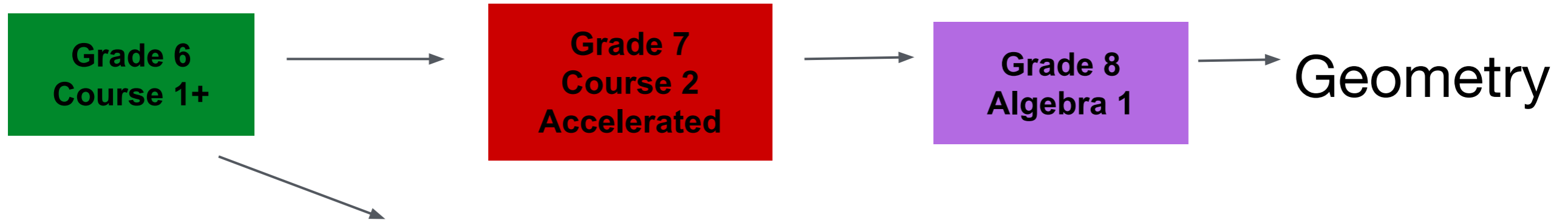
Grade 8

Grade 9

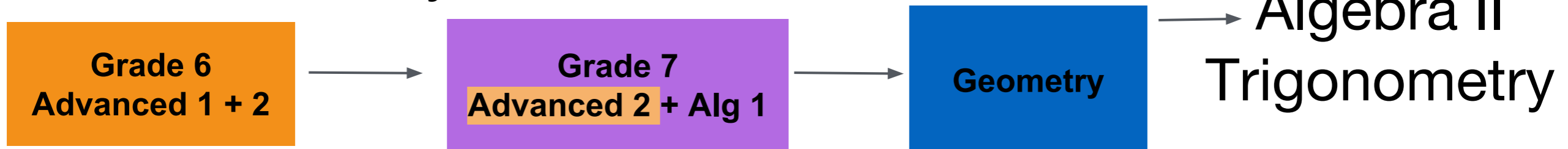
Regular Pathway



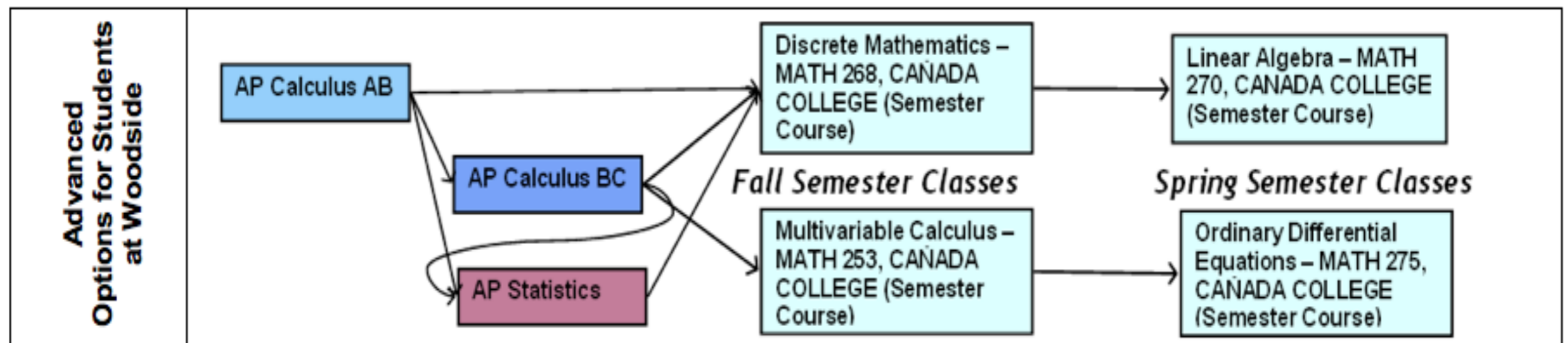
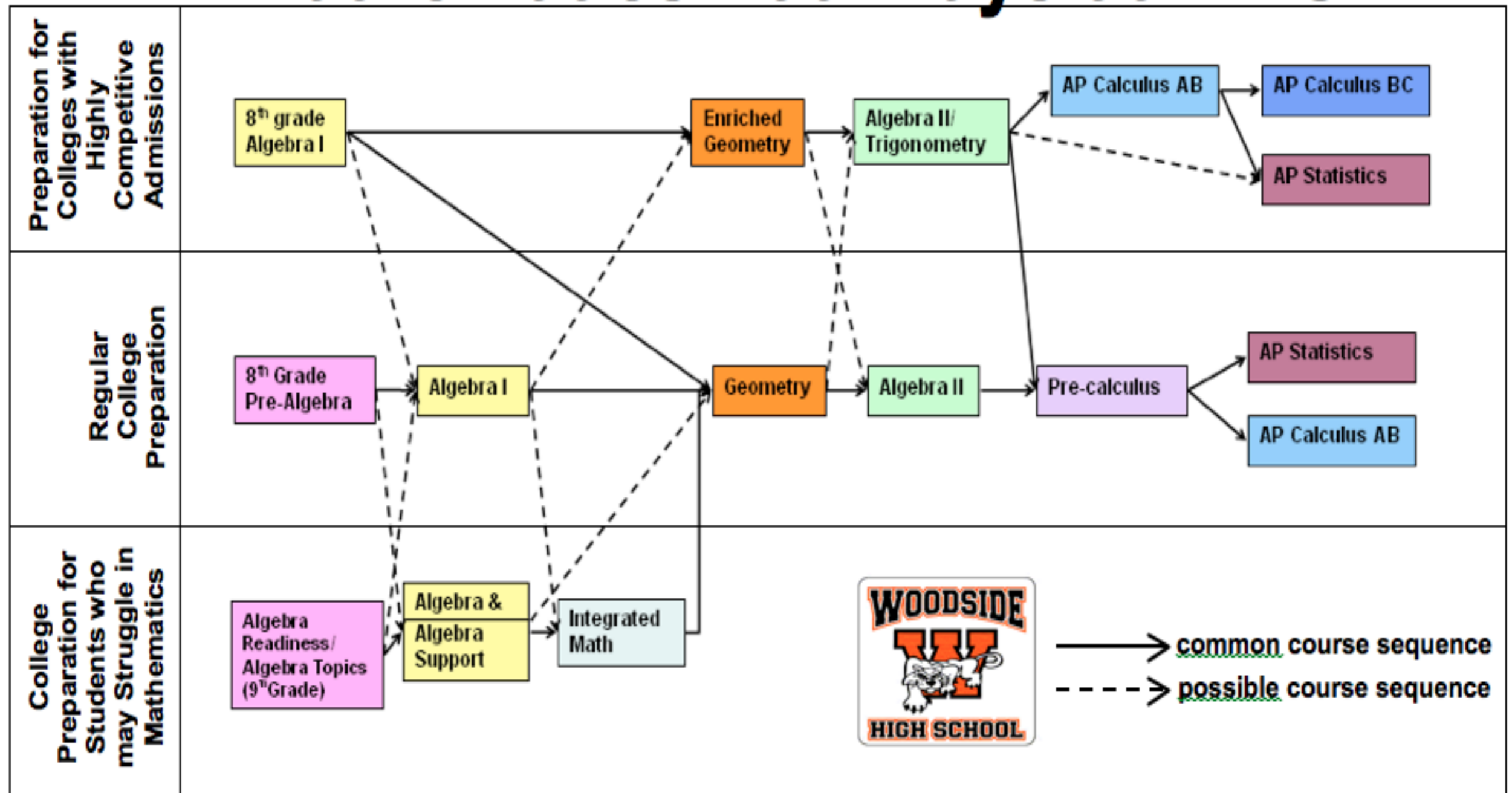
Compacted Pathway



Advanced Pathway



Mathematics Pathways at WHS



Resources

Available on the PVSD website:

- This presentation
- Pathway comparison by grade level
- Link to Woodside High School Math Department
- Link to the Smarter Balanced Practice Test