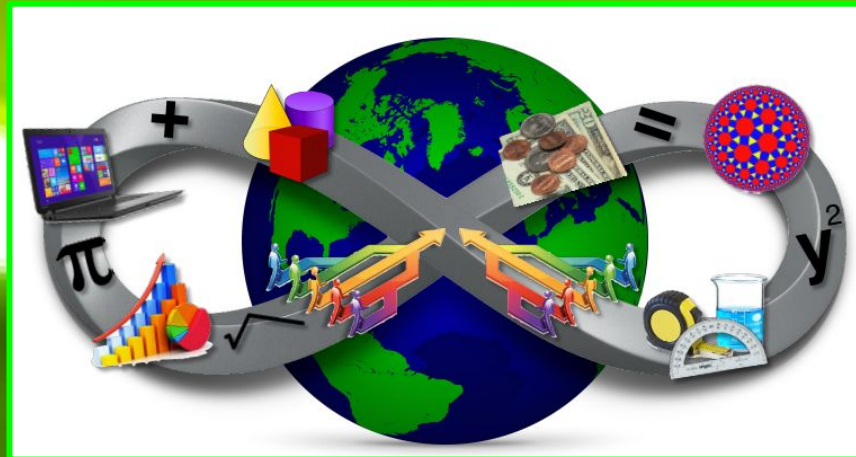


K-8 Math Pathways

Pine-Richland School District
Community Overview Session



Agenda Overview



- ❑ Math Department Philosophy and Vision
- ❑ Continuous Improvement Efforts
- ❑ Math Pathways Overview
- ❑ Sample Unit Overview by Grade Span
- ❑ Placement Process



Math Department Vision & Philosophy Statement



“Mathematics has infinite beauty that allows students to grow and pursue their individual goals through the integration of fundamental skills, abstract concepts, reasoning, and real-world applications.”

Continuous Improvement Efforts

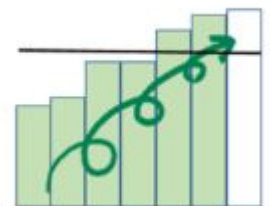
- ❑ District Processes
 - ❑ 2014-2015 Curriculum Review
 - ❑ 2015-2016 Development of Math Placement Matrix
 - ❑ 2015-2016 Updated Pathways
 - ❑ 2017-2018 Updated Math Placement Matrix (STAR 360)
 - ❑ Ongoing Revisions to Decision Trees Support/Extension

- ❑ Mathematics Program Updates
 - ❑ In-Depth Program Review 2017-2018 Study Phase
 - ❑ In-Depth Program Review 2018-2020 Implementation
 - ❑ K-5 Math Resources Implemented 2018-2019
 - ❑ K-5 Basic Facts Support Resources Embedded 2019-2020
 - ❑ Common Assessments Implemented K-12
 - ❑ Strengthening of Differentiation, Enrichment, & Remediation Interventions

“Point A”



“Point Z”





Math Pathways Overview

PRSD Math Pathways														
K	1	2	3	4	5	6	7	8	9	10	11	12		
Course Level Determination				Course Acceleration										
				Math (5 th)	Math (6 th)	Pre-Alg	Hon. Alg 1	Hon. Geo	Hon. Alg2 <i>≥90% in Alg. 1</i>	Hon. TIA <i>≥90% in Geo/Alg. 2 ≥80% in Hn. Geo/Hn. AI2</i>	APCalcAB <i>≥90% in AA&T ≥80% in Hon. TIA</i> APCalcBC <i>≥90% in Hon. TIA</i> APStats <i>≥90% in AA&T ≥80% in Hon. TIA</i>	APCalcAB <i>≥90% in AA&T ≥80% in Hon. TIA</i> APCalcBC <i>≥90% in Hon. TIA</i> APStats <i>≥90% in AA&T ≥80% in Hon. TIA</i>		
Math K	Math 1	Math 2	Compacted/Extended Pathway											
			Math 3	Math 4	Math 5	Math 6	Pre-Al	Algebra1	Hon. Geo <i>≥90% in Alg. 1</i>	Hon. Alg2 <i>≥90% in Alg. 1</i>	Hon. Pre-Calc <i>≥90% in Alg. 2 OR ≥80% in Hn. AI2</i>	CHSBusCalc <i>≥80% in Trig</i> APCalcAB <i>≥90% in AA&T ≥80% in Hon. TIA</i> APCalcBC <i>≥90% in Hon. TIA</i> APStats <i>≥90% in AA&T ≥80% in Hon. TIA</i>		
			Current Pathway											
			Math 3	Math 4	Math 5	Math6	Pre-Al	Algebra1	Geometry <i>Alg. 1</i>	Alg2 <i>Alg. 1 & Geom. Or Concurrent w/ Geom.</i>	Pre-Calculus <i>≥80% Alg. 2 or ≥70% H. Alg. 2 OR Trig. & Anal. Geom. Geom. & Alg. 2 OR Stats *complete Alg2</i>	CHSBusCalc <i>≥80% in Trig or BusCalc ≥80% in Trig or Stats *complete Alg2</i>		
									Algebra 1	Geometry <i>Alg. 1</i>	Alg2 <i>Alg. 1 & Geom. Or Concurrent w/ Geom.</i>	Pre-Calculus <i>≥80% Alg. 2 or ≥70% H. Alg. 2 OR Trig. & Anal. Geom. Geom. & Alg. 2 OR Stats *complete Alg2</i>		
									Fund. of Pre-Al	Fund. of Alg. I	Algebra I w/Lab	Geo w/ Lab <i>≥80% in Alg1</i>	Algebra I w/Lab <i>Algebra 1 & Geom. Or Concurrent w/ Geom.</i>	

Movement between pathways will be collaborative, data-driven decisions among teachers, administrators, parents, and students.

Sample Unit: Grade 3

Current PR course

Current		Chapter 1: Place Value	
Unit Name: Numbers and Operations in Base Ten	Estimated days on topic:		9
Lesson	Content		Days
1	Place Value Through Thousands		1
2	Compare Numbers	Enrich & Differentiate	1
3	Order Numbers		1
	Check My Progress		0
4	Round Numbers to the Nearest Ten		1
5	Round Numbers to the Nearest Hundred		1
PA Core Lesson (Not a My Math lesson)	Round Money to the Nearest Whole Dollar		1
6	Problem-Solving Investigation: Use the Four Step Plan		1
Wrap Up	My Chapter Review		1
	Chapter Test		1
Compacted Extended		Chapter 1: Place Value	
Unit Name: Numbers and Operations in Base Ten	Estimated days on topic:		9
Lesson	Content		Days
1	Place Value Through Thousands		1
2	Compare Numbers	Enrich & Differentiate	1
3	Order Numbers		1
	Check My Progress		0
4	Round Numbers to the Nearest Ten		1
5	Round Numbers to the Nearest Hundred		1
PA Core Lesson (Not a My Math lesson)	Round Money to the Nearest Whole Dollar		1
6	Problem-Solving Investigation: Use the Four Step Plan		1
Wrap Up	My Chapter Review		1
	Chapter Test		1

Current PR course compacted and extended

Sample Unit: Grade 5

Current PR course

Chapter 1 - Place Value: Current Course		
Unit Name: Numbers and Operations in Base 10	Estimated Total Number of Days for the Chapter: 12	
Lesson	Content	Days on Topic
1	Place Value Through Millions	1
2	Comparing and Ordering Whole Numbers Through Millions	1
3	Hands-On: Model Fractions and Decimals	1
4	Represent Decimals	1
	Check My Progress	1
5	Hands-On: Understand Place Value	1
6	Place Value Through Thousandths	1
7	Compare Decimals	1
8	Order Whole Numbers and Decimals	1
9	Problem-Solving Investigation: Using the Four-Step Plan	1
Wrap Up	My Chapter Review	1
	Form 2A Test + 21st Century Assessment - Chapter 1 Performance Task (Parts A & B only)	1

Enrich & Differentiate

Chapter 1 - Place Value: Compacted and Extended Course		
Unit Name: Numbers and Operations in Base 10	Estimated Total Number of Days for the Chapter: 12	
Lesson	Content	Days on Topic
1	Place Value Through Millions *Extend place value through billions period. ←	1
2	Comparing and Ordering Whole Numbers Through Millions *Extend through billions period. ←	1
	Hands-On: Model Fractions and Decimals	1
4	Represent Decimals	1
	Check My Progress	1
5	Hands-On: Understand Place Value	1
6	Place Value Through Thousandths *Extend place value through ten thousandths. ←	1
7	Compare Decimals *Extend place value through ten thousandths. ←	1
8	Order Whole Numbers and Decimals *Extend place value through ten thousandths. ←	1
9	Problem-Solving Investigation: Using the Four-Step Plan	1
Wrap Up	My Chapter Review	1
	Form 3A Test + 21st Century Assessment - Chapter 1 Performance Task	1

Enrich & Differentiate

Current PR course compacted and extended

Sample Unit: Grade 7 Pre-Algebra

Percents: Numbers, Percents, and Applying Percents (Current Pre-Algebra Course)		
Unit Name: Percents	Estimated Total Number of Days for the Unit:	10 days
Section	Topic	Days on Topic
8-1	Relating Decimals, Fractions, and Percents	
8-2	Finding Percents	1
8-3	Finding a Number When the Percent Is Known	1
8-4	Percent Increase and Decrease	1.5
Quiz	Administer Quiz on first part of this unit	0.5
8-6 and 8-7	Applications of Percents	3
Review		
Unit Test		

Enrich & Differentiate

Current PR course

Percents: Numbers, Percents, and Application of Percents (Compacted and Extended Pre-Algebra)		
Unit Name: Percents	Estimated Total Number of Days for the Unit:	10
Section	Topic	Days on Topic
8-1	Relating Decimals, Fractions, and Percents	1
8-2	Finding Percents	1
8-3	Finding a Number When the Percent Is Known	1
8-4	Percent Increase and Decrease	1
	Administer Quiz on first part of Percent Unit	0.5
8-6 and 8-7	Applications of Percents	2.5
and Enrich	Application of Percents in Real World Problems	1
Review	Review all components of Percent Unit	1
Unit Test	Administer Test on Percents	1

Enrich & Differentiate

Current PR course compacted and extended

Communication of Placement



Dear Parents/Guardians:

This is always an exciting time for students and families. Our current school year is coming to a close and we are preparing for the 2020-2021 school year. This letter will provide you with a brief summary of the math pathways recommendation process for students going into grades 3-8. Through a comprehensive and systematic curriculum review process we identified the need to: 1) simplify and clarify our mathematics pathways chart; 2) narrow the range of student readiness levels in our mathematics classrooms; and 3) consider the most appropriate and available data points for making mathematics course placement recommendations.

Math Pathways Chart K-12

Below please find a copy of our math pathways chart. Beginning in grade 3, the "compacted/extended" pathway is available for students. The traditional pathway courses are referenced as the "current" pathway in effort to clarify the similarities and differences. Both the compacted/extended and current pathways prepare our students to take calculus in high school. The units planned for each course and the approximate time allotted for each unit are the same. The compacted/extended pathway courses are built from the foundation of our current courses with certain topics compacted (shortened or eliminated). This compaction provides our teachers with opportunities to extend learning opportunities for students who have demonstrated the ability to quickly understand complex mathematical concepts.

PRSD Mathematics Pathways Chart

PRSD Math Pathways		X	1	2	3	4	5	6	7	8	9	10	11	12	
Course Level Determination					Math (5 th)	Math (6 th)	Pre-Alg	Hon. Alg 1	Hon. Geo	Hon. Alg2 (2020 to Aug. 1)	Hon. TIA (2020 to Aug. 2) (2020 to Aug. 10, 4-12)	Hon. TIA (2020 to Aug. 2) (2020 to Aug. 10, 4-12)	AP Calc AB (2020 to Aug. 2) (2020 to Aug. 10, 4-12)	AP Calc AB (2020 to Aug. 2) (2020 to Aug. 10, 4-12)	
					"COMPACTED/EXTENDED" PATHWAY									Existing Pathway	
Math K	Math 1	Math 2			Math 3	Math 4	Math 5	Math 6	Pre-Alg	Algebra 1	Hon. Geo (2020 to Aug. 1)	Hon. Alg2 (2020 to Aug. 1)	Hon. Pre-Calc (2020 to Aug. 1) (2020 to Aug. 10, 4-12)	AP Calc BC (2020 to Aug. 1) (2020 to Aug. 10, 4-12)	
					"CURRENT" PATHWAY										
	Math 3	Math 4	Math 5	Math 6	Pre-Alg	Algebra 1				Geometry Alg. 1	Geometry Alg. 2 or Alg. 1 & 2 Simult. or Concurrent or Spon.	Alg2 or Alg. 1 & 2 Simult. or Concurrent or Spon.	Pre-Calculus (2020 to Aug. 2) (2020 to Aug. 10, 4-12) or Trig. & Real Geom. Geom. 3, Alg. 2 or Stats (2020 to Aug. 2)	AP Calc BC (2020 to Aug. 1) (2020 to Aug. 10, 4-12)	
											Algebra 1	Geometry Alg. 2	Alg2 or Alg. 1 & 2 Simult. or Concurrent or Spon.	Pre-Calculus (2020 to Aug. 2) (2020 to Aug. 10, 4-12) or Trig. & Real Geom. Geom. 3, Alg. 2 or Stats (2020 to Aug. 2)	
										Fund. of Pre-Alg	Fund. of Alg. 1	Algebra 1 w/Lab (2020 to Aug. 1)	Geo w/ Lab (2020 to Aug. 1)	Alg2 w/ Lab or Alg. 1 & 2 Simult. or Concurrent or Spon.	Pre-Calculus (2020 to Aug. 2) (2020 to Aug. 10, 4-12) or Trig. & Real Geom. Geom. 3, Alg. 2 or Stats (2020 to Aug. 2)

Placement Letters

Personalized Emails for 3rd-6th Grade to be Sent in May

Letters for 7th & 8th Grade Sent to Families Previously

Thank You for Viewing!!

