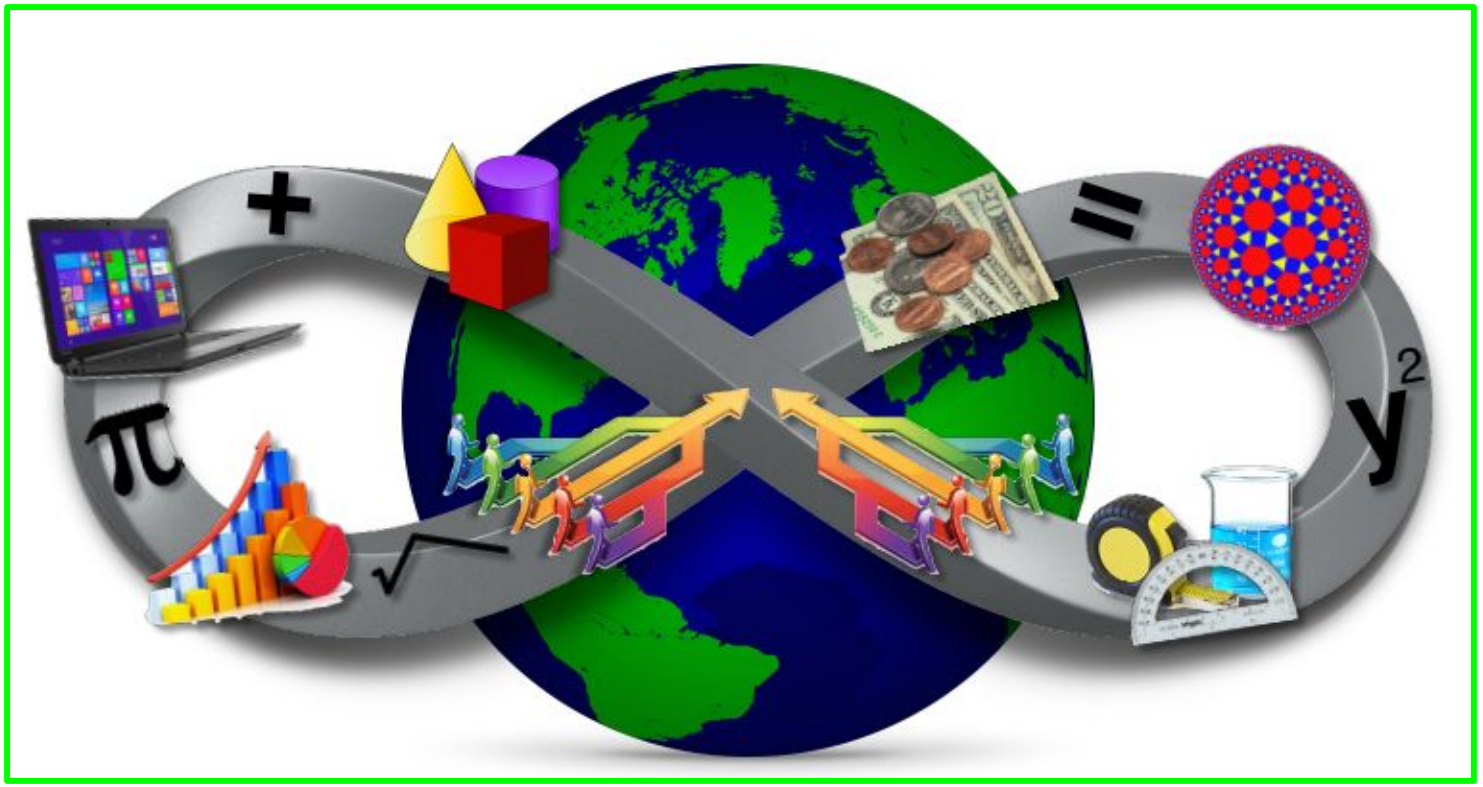
K-8 Math Pathways

Pine-Richland School District
Community Overview Session

Math Department
Vision & Philosophy Statement

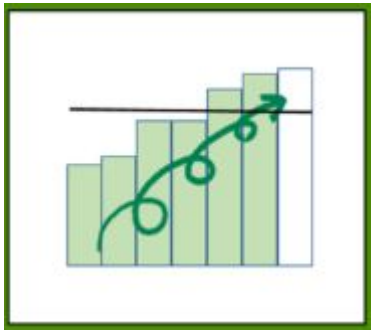


"Mathematics has infinite beauty that allows students to grow and pursue their individual goals through the integration of fundamental skills, abstract concepts, reasoning, and real-world applications."

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)
  - 2022-2023 Updated Math Placement Matrix
    - Basic Facts
    - Teacher Attribute Alignment to Standards of Math Practice
  - 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



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 (5th)	Math (6th)	Pre-Alg	Hon.Alg 1	Hon.Geo	Hon.Alg2 ≥90% in Alg.1	Hon.TIA ≥90% in Geo/Alg.2 ≥80% in Hn.Geo/Hn.Al2	APCalcAB ≥90% in AA&T ≥80% in Hon.TIA APCalcBC ≥90% in Hon.TIA APStats ≥90% in AA&T ≥80% in Hon.TIA	APCalcAB ≥90% in AA&T ≥80% in Hon.TIA APCalcBC ≥90% in Hon.TIA APStats ≥90% in AA&T ≥80% in Hon.TIA
Math K	Math 1	Math 2	**Compacted/Extended Pathway**									
			Math 3	Math 4	Math 5	Math 6	Pre-Al	Algebra1	Hon.Geo ≥90% in Alg. 1	Hon.Alg2 ≥90% in Alg.1	Hon.Pre-Calc ≥90% in Alg.2 OR ≥80% in Hn.Al2	CHSBusCalc ≥80% in Trig APCalcAB ≥90% in AA&T ≥80% in Hon.TIA APCalcBC ≥90% in Hon.TIA APStats ≥90% in AA&T ≥80% in Hon.TIA
			Current Pathway									
			Math 3	Math 4	Math 5	Math6	Pre-Al	Algebra1	Geometry Alg. 1	Alg2 Alg. 1 & Geom. Or Concurrent w/ Geom.	Pre-Calculus >=80% Alg. 2 or >=70% H.Alg. 2 OR Trig. & Anal. Geom. Geom. & Alg. 2 OR Stats *complete Alg2	CHSBusCalc ≥80% in Trig or BusCalc ≥80% in Trig or Stats *complete Alg2
									Algebra 1	Geometry Alg. 1	Alg2 Alg. 1 & Geom. Or Concurrent w/ Geom.	Pre-Calculus >=80% Alg. 2 or >=70% H.Alg. 2 OR Trig. & Anal. Geom. Geom. & Alg. 2 OR Stats *complete Alg2
							Fund. of Pre-Al	Fund. of Alg. I	Algebra I w/Lab	Geo w/ Lab ≤80% in Alg1	Alg2 w/ Lab Alg. 1 & Geom. Or Concurrent w/ Geom.	

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	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

Enrich & Differentiate

Current PR course compacted and extended

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	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

Enrich & Differentiate

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 Performace Task **(Parts A & B only)**	1

Enrich & Differentiate

Current PR course compacted and extended

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 Performace Task	1

Enrich & Differentiate

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
8-7	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

Math Placement Matrix

	2nd to 3rd	3rd to 4th	4th to 5th	5th to 6th	6th to 7th	7th to 8th	9th-12th
40%	20% My Math Cumulative Benchmark _____ 20%Diagnostic Placement Test Grade 3	20% My Math Cumulative Benchmark _____ 20% Diagnostic Placement Grade 4	15% My Math Cumulative Benchmark Grade 4 _____ 15% Diagnostic Placement Grade 5 _____ 10% PSSA Grade 3	15% My Math Cumulative Benchmark Grade 5 _____ 15% Diagnostic Placement Grade 6 _____ 10% PSSA Grade 4	PVAAS Prob ADV on Math for Gr 6 PSSA 40%	PVAAS Prob ADV on Math for Gr 7 PSSA 40%	100% - Previous End-of-Course Grade and Teacher Recommendation
20%	My Math Chapter Tests at Proficient (P) Level	Average % Q1, Q2, Q3	Average % Q1, Q2, Q3	Average % Q1, Q2, Q3	Average % Q1, Q2, Q3 30%	End of Year Q1, Q2, M, 30%	
20%	STAR 360	STAR 360	STAR 360	STAR 360	STAR 360 20%	STAR 360 20%	
10%	Teacher Attribute	Teacher Attribute	Teacher Attribute	Teacher Attribute	Teacher Attribute 10%	Teacher Attribute 10%	
10%	Basic Math Facts	Basic Math Facts	Basic Math Facts	Basic Math Facts			

Communication of Placement

Placement letters are posted online in the Student Information System for families to view.

Parents will receive an email notifying them that the math placements for students going into grades 3 through 6 are ready to be reviewed.

Questions regarding placement should be directed to your child's current math teacher.

Pine-Richland School District

Focused on Learning for Every Student Every Day

Dear Parents/Guardians:

As our current school year is coming to a close and we are preparing for next school year, we are reaching out to provide you with a brief summary of the math pathways recommendation process for students going into grades 3-8.

We offer students in grades 3 through 8 the opportunity to have their teachers focused on a more narrow range of student readiness levels within their mathematics classroom. This assists us in tailoring the teaching and learning experience to students' individual needs through differentiation of lessons. Each year, we curate multiple data points reflective of students' mastery of their current grade level standards to make placement recommendations for the following year. These placements take the child's performance into account and allow for movement between the math pathways offered at Pine-Richland School District.

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 based on prior mastery levels). This compaction provides our teachers with opportunities to extend learning opportunities for students who have demonstrated the ability to quickly understand complex mathematical concepts.

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							Fund. of Pre-Al	Fund. of Alg. I	Algebra I w/Lab	Geo w/ Lab ≤80% in Alg1	Alg2 w/ Lab Alg. 1 & Geom. Or Concurrent w/ Geom.	

To identify which students we believe would benefit from being placed in each pathway, we developed a mathematics placement assessment matrix to guide our decision making. The assessment matrix combines multiple data points using standardized test results, classroom test results, benchmark and diagnostic assessments, basic math fact checks, and

Thank You for Viewing!!