

### Middle School Math Parent Information

### All Standards, All Students

### **Common Core State Standards - Mathematics**



# Kindergarten-12th grade Common Core State Standards Math Progressions

Elementary Middle High

K - 5 6 - 8 Algebra I → Pre - Calculus

# Restructuring CCSS Math

#### Old CA Algebra 1

Proportional Relationships
Linear Equations and Inequalities
Systems of Equations
Roots and Exponents
Expressions and Polynomials
Quadratic Equations and Functions

- Content from old CA Algebra 1 course
- Content from old CA Geometry and Algebra 2 courses (high school)
- Content not previously included in the regular high school math sequence

#### CCSS Math 8

Proportional Relationships Linear Equations and Inequalities Systems of Equations Roots and Exponents Introduction to Functions

Transformations and Congruence Angles and Parallel Lines Pythagorean Theorem

> Analyzing Graphs Bivariate Data

(including projects and applications)

#### CCSS Algebra 1

Linear Equations, Inequalities, and Systems Expressions and Polynomials Quadratic Equations and Functions

Modeling with Functions Interpreting and Building Functions Linear, Quadratic, and Exponential Models

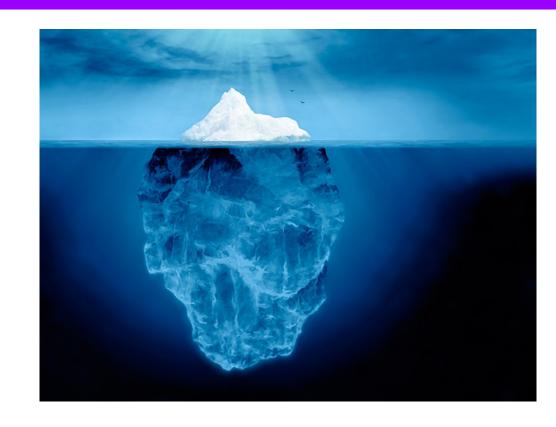
Categorical and Quantitative Data

(including projects and applications)

### Reflecting on Our Current Pathways

Over compacting standards was limiting students to the tip of the iceberg.

"...skimming over any topics will only weaken one's ability to tackle more complex material down the road." (Wu, UC Berkeley Professor, 2012)



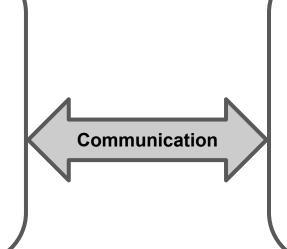
# Why Change?

- Focused math courses for grades 6, 7, 8, and Algebra
- Algebra I in 9th grade according to CCSS
  - Acceleration available in middle school
- Compact three years of material into two years as recommended in the state framework
- Decisions to accelerate should not be rushed per CA

### **Math Pathway Revision Process**

### **Leadership Team**

- 2 HS administrators
- 2 HS math teachers
- 9 MS administrators
- 10 MS math teachers
- Dr. Kati Krumpe
- Dr. Nisha Dugal
- Dr. Ramona Chang



### **Each School Site**

Discussed information

& provided feedback

The leadership team met monthly during the 2016-2017 school year.

# Recommendations for Accelerated Pathways

Smarter
Balanced
Assessment



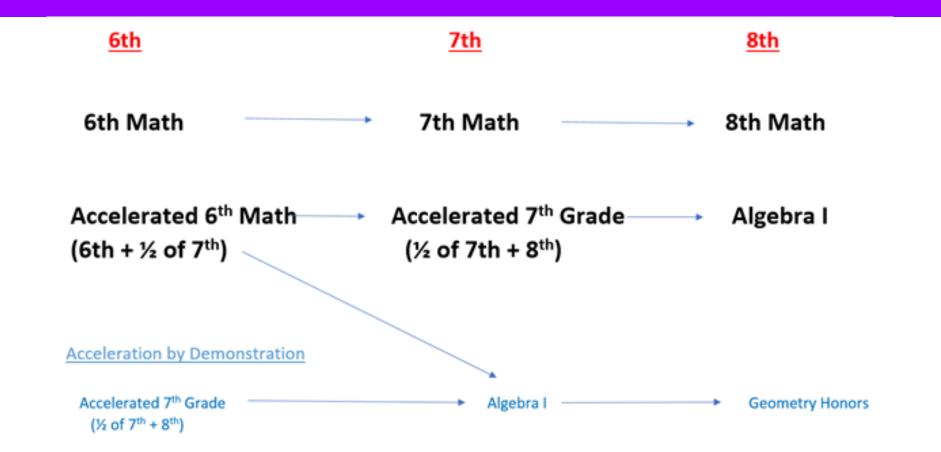
Math Portfolio Tasks



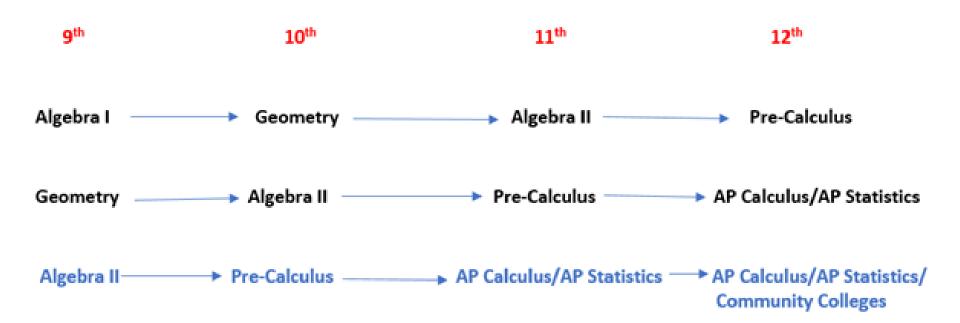
Teacher Recommendation



### Revised TUSD Middle School Math Pathway



### **TUSD High School Math Pathways**



# Recommendations for Accelerated Pathways

### 1. Smarter Balanced Assessment

- Math Performance "Standards Exceeded"
- Claims
  - i. Concepts & Procedures "Above Standards"
  - ii. Problem Solving and Modeling & Data either "At/Near Standards" or "Above Standards"
  - iii. Communication Reasoning either "At/Near Standards" or "Above standards"

# Recommendations for Accelerated Pathways

2. Math Portfolio Tasks - All 4 tasks should be at least "3" in Concepts & Procedures, Strategies, and Communication Reasoning

### 3. Teacher Recommendation based on:

- Standards Based Achievement Report
- Standards for Mathematical Practices
- Work ethics, Responsibility, & Maturity

# Outside the Pathways





### **Outside the Pathways**

- What 5th grade students who have been recommended for acceleration <u>and</u> have parent consent will be given an additional assessment
- Why To determine which accelerated pathway is appropriate
- When June
- Where Current School

# Options to Accelerate in High School

- Take summer courses that are designed to provide the equivalent experience of a full course in all aspects, including attention to the Standards for Mathematical Practice.
- Students can speak to their high school for other acceleration opportunities

# All Standards, All Students

