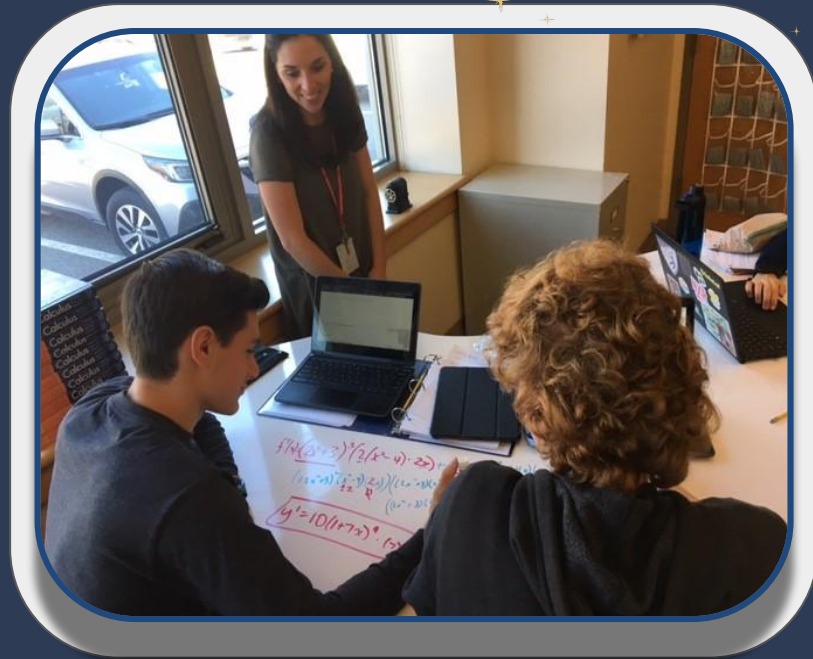


# Math K-12

## CIA Subcommittee Presentation

June 5, 2023



# Agenda

## Elementary Mathematics

- Bridges in Mathematics
  - Goals and Objectives
- Structure & Implementation
  - Professional Learning
    - Priorities
  - Sharing Our Practice

## Secondary Mathematics

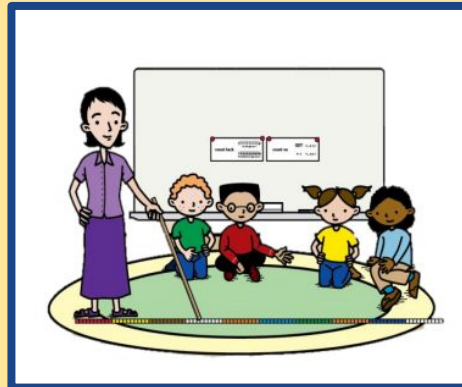
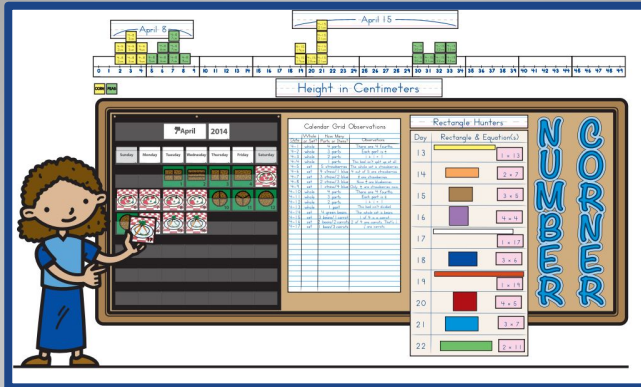
- Who We Are Math 6-12
- Involvement in School Community
  - What We Teach - FLMS
    - FLHS Math Courses
- What's New & Short Term Goals
  - Where We Are Going

# Bridges Goals and Objectives



- A **comprehensive** curriculum
- Fully **aligned** to the Next Gen Mathematics Learning Standards both **Content** and the Standards for Mathematical **Practices**
- **Rigorous, coherent,** and **engaging**
- **Accessible** to all learners
- A blend of **direct instruction** with **investigations** and **explorations**

# Daily Structure



Number Corner

20 Minutes



Problems & Investigations

60 Minutes



Work Places



# Implementation 2022 -2023



**K - 2**

**Number Corner**

**Problems and Investigation**

**Work Places**

**3 - 5**

**Number Corner**

**Math In Focus**

# A Sneak Peek Into Our

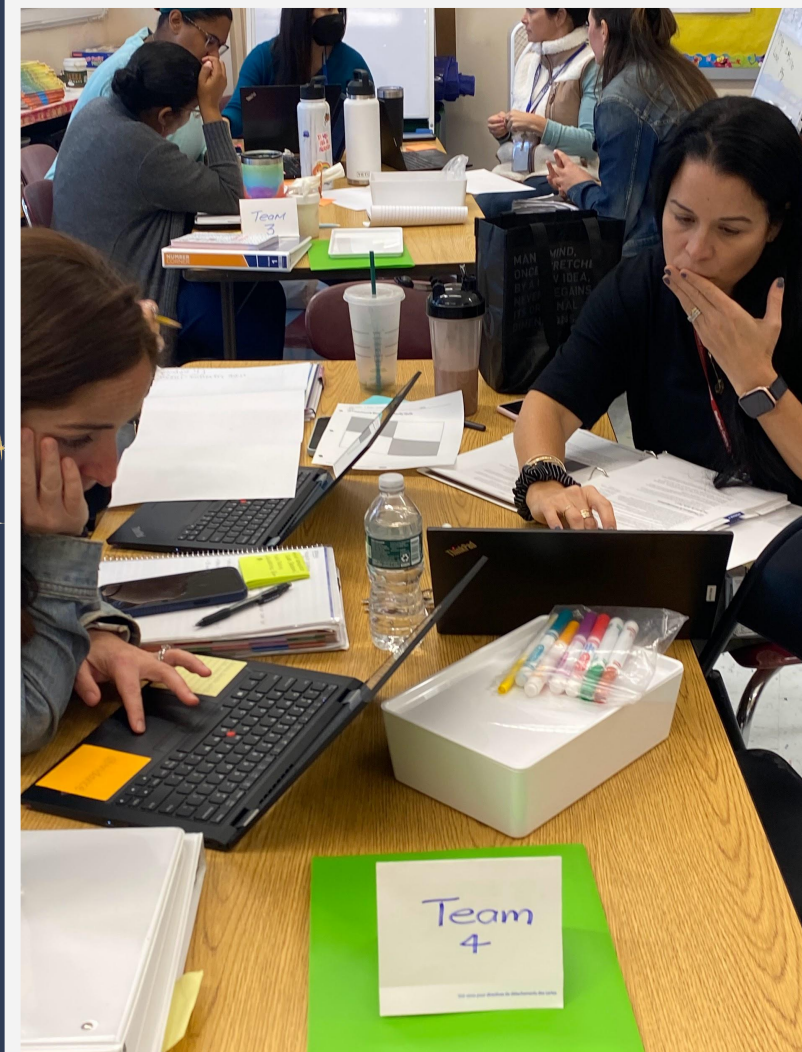


# Mathematics Classrooms



# Coaching Structure

| January |      |      |            |      |      |    |
|---------|------|------|------------|------|------|----|
|         |      |      |            | 1    | 2    | 3  |
|         |      |      |            |      | BVES |    |
| 4       | 5    | 6    | 7          | 8    | 9    | 10 |
|         | PRES | PRES |            | WPES | WPES |    |
| 11      | 12   | 13   | K<br>3rd   | 15   | 16   | 17 |
|         | BHES | BHES |            | MKES | MKES |    |
| 18      | 19   | 20   | 1st<br>4th | 22   | 23   | 24 |
|         | BVES | BVES |            | PRES | PRES |    |
| 25      | 26   | 27   | 2nd<br>5th | 29   | 30   | 31 |
|         | WPES | WPES |            | BHES | BHES |    |





# Professional Development

## Sample Agenda

Successes & Challenges

Review Assessments

Unpack Unit – Concepts, Models & Strategies

Review Work Place Games

Team planning Time



K - 2 Monthly 8:00 - 11:00

3 - 5 Monthly 2:00 - 3:20



## 2022 - 2023 – Phase I

- Getting Started with Bridges Workshops – **K-5 and 3-5 teachers**
- Monthly Bridges Unit and Number Corner Learning Sessions – **K-2 teachers**
- Number Corner Learning Sessions – **3-5 teachers**
- Intervention training (6hrs) – **Tiered Support teachers**
- Introduction to Bridges training (3 hrs) – **Learning Specialists**
- Introduction to Bridges training – **IA's and TA's**
- Introduction to Bridges training (5 hrs) – **Manhattanville Interns**
- **Coaching** sessions and **modeling** lessons
- Working with **individual and small groups** of students

- Spring 2022 Webinar
- Grades K - 5 Parent Information Night

## 2023 - 2024 – Phase II

- **K - 2 Teachers:** Monthly 2-hour learning sessions – differentiation, looking at student work and assessments and Standards for Mathematical practices
- **3 - 5 Teachers:** Monthly 2-hour Learning Sessions – unpack the Bridges Units
- **Tiered Support and Learning Specialists:** Intervention Training to engage in a deeper dive into the Intervention Program
- **New To Grade Level Teachers:** Unpack the Bridges Units and implement coaching cycles
- **Model lessons** and support classroom instruction
- **Data Analysis:** Collect and analyze data. Engage in data conversations with building level teams

- Fall 2023 – Grades 3-5 Math Parent Night
- What to Expect by Grade level
- Spring 2024 - Family Math Night
- Monthly Highlights for Families

## 2024 & Beyond – Phase III

- **K-2 Teachers:** Continuous Improvement – Focus is on listening to teacher feedback and observing practice with a goal of continuously improving teacher support and student outcomes
- **3 - 5 Teachers:** Monthly 2-hour learning sessions – differentiation, looking at student work and assessments and Standards for Mathematical practices
- **New To Grade Level Teachers:** Unpack the Bridges Units and implement coaching cycles
- **Data Informed Decision Making:** Examine progress to goals, identify key successes, and learn from and solve significant challenges. Consider key indicators, make adjustments and plan for the next level of work

- What to Expect by Grade level
- Spring 2025 - Family Math Night
- Monthly Highlights for Families

# Sharing In Practice

- Hastings on the Hudson- Bridges Units and Number Corner
- Katonah Visit – Bridges Intervention
- FLMS 6th-grade math teachers – Number Corner
- Weekly Updates



## Making Fraction Strips

- Partitioning with length models is critical to understanding fractions as numbers and is a good way to transition from area to length models (because they still have area).
- These strips are powerful visual tools that allow students to see the relative size of fractional regions, which is used to explore
- Making fractions used to explore

## In 2nd-Grade, The Learning Continues ...



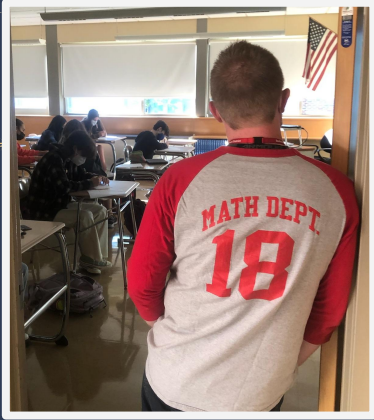
It started in the classroom right after Spring Break when our second-grade students took their scientific skills to the next level by planting seeds and measuring their seedlings' growth daily. They even charted their findings on a class line plot, which making interesting observations. Fast forward a few weeks, and the second graders at MKES transferred their thriving plants to the garden. They learned important lessons, like making the perfect hole for each seedling based on its container size. And, for those classrooms without direct sunlight, they figured out why their plants took a little longer to grow.



- Teachers maintain an up access.
- Word Resource Cards a math vocabulary.
- Number Corner lessons
- Number Corner Student assessments.

# Who We Are

## Math 6-12



### 6th Grade

Dan Caffrey  
Danielle Mazzella  
Mandi Smalley  
Katya Martinez  
(ESOL & RTI Support)

### 7th Grade

Mike Mullen  
Alex Atha  
Jessica Samoilis

### 8th Grade

Maria Cambareri  
Laura Cirincione  
Emily Fenter

Sarah Bazzano  
Matt Kimmerle  
Rob Morant  
Jon Swart

Michael Broder  
Alex Kuritzky  
Vilma Olego  
Will Rolon  
(Hillside)

### High School

Brittany DaRos  
Maria Mazzamuto  
Steve Petrillo  
Bill Tozzo

Toni Hamilton  
Tom McGinn  
Liz Sansone  
Carols Arias (ESOL IA)





# Involvement In School Community



## Teachers

- Athletic Coaches
  - Instructional Coaches
  - Mentors for ASPIRE
- Students Club Advisors:  
Mathletes & Girls that Code
- Class Advisors
  - Mentors to Student Teachers & Interns
  - AVID Strategies
  - Support for ESOL students





# What We Teach - FLMS

## 6th Grade

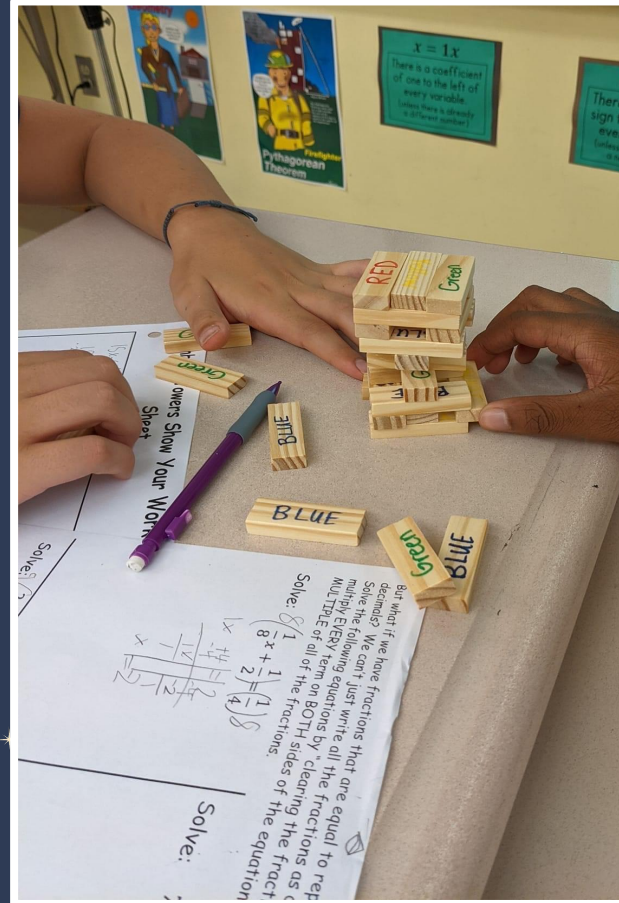
- Math 6

## 7th Grade

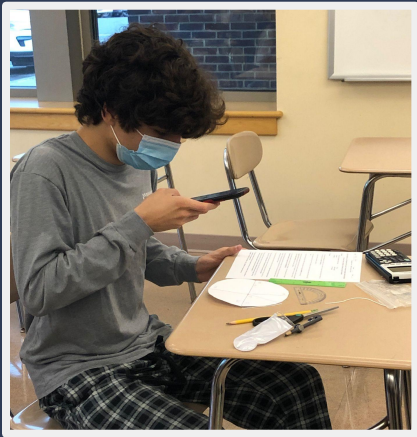
- Math 7 & 7 Accelerated

## 8th Grade

- Math 8 & Algebra 1



# FLHS Math Courses



ESOL Math  
Algebra 1  
Algebra 1A  
Algebra 1B

Geometry  
Geometry Honors  
Geometry with Lab  
Quantitative Geometry

Intermediate Algebra  
College Algebra w/Trig  
Financial Algebra  
Statistics  
AP Statistics

Algebra 2 and Trig  
Algebra 2 & Trig H

Precalculus  
Precalculus H

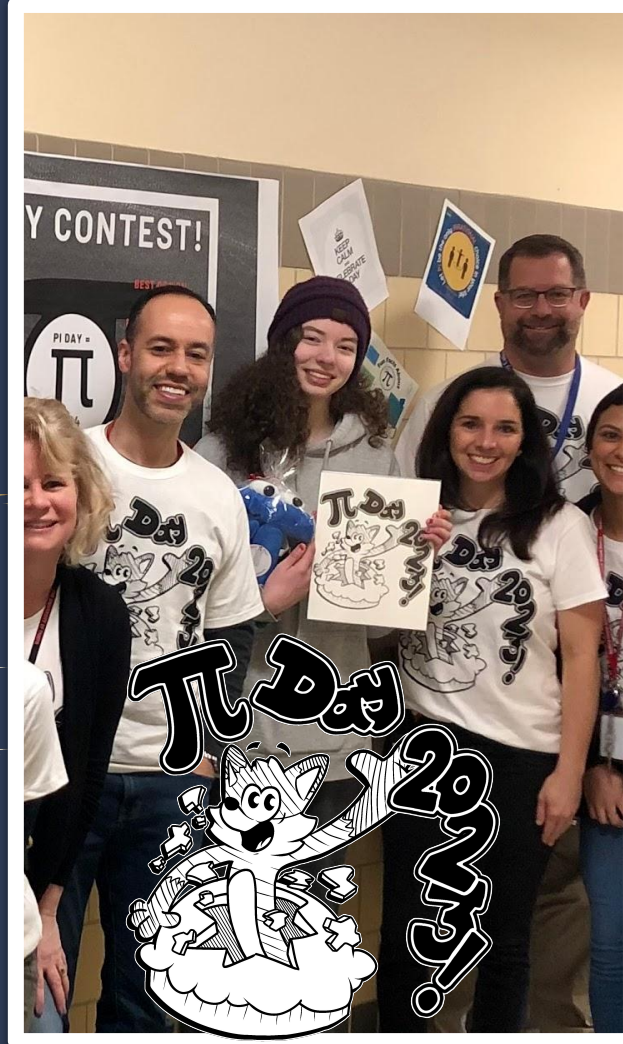
Calculus  
AP Calculus AB  
AP Calculus BC

[Math Pathways](#)



# What's New & Short Term Goals

- Dept. Goal
- 6-12 Curriculum Development and Alignment
- Introduced new Math Lab supports
- New course offerings & Dual Enrollment with WCC
- Increase student , School & Community Involvement
  - 6-12 Pi Day Celebration
  - American Mathematics Competition (AMC)
  - Mathletes
  - Girls that Code MS & HS
- Build upon K-12 Partnerships
  - Members of the K-5 Math Committee
  - 6th Grade teachers visit elementary schools to see Bridges in action





# Where We Are Going

## 2-5 years

- Continue to update how and what we teach.
- Engage department in meaningful and productive professional development opportunities
- Expand Math Celebrations
- Continue collaborating with elementary colleagues

## Long Term

- Optimize course offerings through curriculum alignment and development
- Continue to work together to create a dynamic and seamless K-12 mathematical experience for our students.
- Reflect and enhance course offerings
- ✨ Considerations for Bilingual Support
- ✨ Curriculum Resources
- ✨ Interdisciplinary opportunities

