

A decorative graphic featuring a dashed blue line that curves around the central text. Various colorful shapes are scattered around: a large teal C-shape in the top left, a small teal circle next to it, a yellow thought bubble in the top right, a large green circle in the top right, a small green circle next to it, a large orange circle in the bottom right, a small pink circle next to it, a large yellow C-shape in the bottom right, a large green circle in the bottom left, a small yellow circle next to it, and a large yellow circle in the bottom left.

# D34 Math Trajectory Discussion

October 1, 2019

[Click here to view a video  
of math instruction in D34](#)



## History of Math Service in D34

Prior to 2013:

- Accelerated math existed
- Everyday Math for elementary primary resource

2013-2014:

- K-5 Grades no longer accelerate; 2-5 switch for enrichment
- Grades K-5 Everyday Math along with CCSS resources

2014-2015:

- Grades 3/4/5 switch for grade level math enrichment
- Grades 2-5 implement Eureka
- Grades K-1 Everyday Math along with CCSS resources
- Last year of Math Lab Aide support

2015-2016:

- Grades 4 & 5 switch for math enrichment
- AUGS implements Eureka with honors/plus/regular

2016-2017:

- Grades 4 & 5 switch for math enrichment
- K/1 implements Eureka

2017-2018:

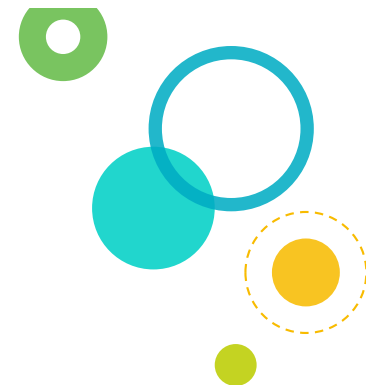
- Grades 4 & 5 switch for math enrichment

2018-2019:

- Grades K-5 switch for math enrichment

2019-2020:

- Grades K-2 enrich and Grades 3-5 accelerated



# Current D34 Math Services

## Elementary

- SLP (Structured Learning Program)
- LOP (Learning Opportunity Program)
- K-5: Regular/General Education
- K-2: Enriched Math
- 3-5: Accelerated Math
- K-5: Subject Acceleration & Grade Level Acceleration

## Antioch Upper Grade School

- LOP (Learning Opportunity Program)
- Instructional Math
- Co-Taught Math
- Regular/General Education
- Math Plus
- Math Honors
- Subject Acceleration & Grade Level Acceleration

# Enriched Math vs Accelerated Math

## ENRICHED MATH OPTIONS

- Look at data to determine needs of students
- Go deeper
- Apply content to additional circumstances/context/situations
- Whole Child Approach - Work on students opportunities for improvement within zone of proximal development (language, writing, symbols, real world connections, manipulatives)

## ACCELERATED MATH OPTIONS

- Look at data to determine needs of student
- Consolidate or skip content/standards within the grade level
- Skip entire grade level of math

\*\*\*Please see hand-out or link for shifts in CCSS Math.

[CCSS Math Shifts](#)

# 19–20 Acceleration Work in D34

- D34 is working with the Regional Office of Education to...
  - Plan and conduct enriched/accelerated math teacher meetings
  - Use data, CCSS shifts, modes of representation to develop well rounded students, ensure there are no gaps, and address individuals needs

[First Grade Data](#) [Second Grade Data](#) [Third Grade Data](#) [Fourth Grade Data](#) [Fifth Grade Data](#) [Sixth Grade Data](#)

- Support staff in research in changing practice
- Create new scope and sequence documents
  - Are we skipping content, if so what?
  - Are we consolidating content, if so what?
- Create new Trimester Criteria Sheets for Report Cards
- Preparation for comments on Report Cards
- Review and adjust qualification placement tests/criteria/process



# Feeder School and D117 Research FACTS

Interviews with other  
Districts



# Freshman Class ACHS

9th Grade Math Data 19-20.xlsx [Read-Only]

	A	B	C	D	E	F	G	H	I	J	K
1		<b>AUGS</b>	<b>%</b>	<b>Emmons</b>	<b>%</b>	<b>Grasslake</b>	<b>%</b>	<b>Private</b>	<b>%</b>	<b>Other</b>	<b>%</b>
2											
3	<b>Math 1</b>	102	48.3	15	48.4	11	52.4	3	75.0	13	68.4
4	<b>Math 1 Honors</b>	73	34.6	11	35.5	5	23.8	1	25.0	3	15.8
5	<b>Math 2 Honors</b>	26	12.3	4	12.9	1	4.8	0	0.0	3	15.8
6	<b>Math 3 Honors</b>	10	4.7	1	3.2	4	19.0	0	0.0	0	0.0
7											
8	<b>TOTAL:</b>	211		31		21		4		19	
9											
10											
11											

# Freshman Class Lakes



LCHS Semester 1 - Freshman Math Enrollments\_09042019

.XLSX



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Calendar

	A	B	C	D	E	F
1	Calendar	Department	Course	Feeder School	Number of Students	
2	19-20 LCCHS	Mathematics	AP Computer Science Principles	Palombi	2	
3	19-20 LCCHS	Mathematics	Integrated Math 1	AUGS	31	
4				Millburn	27	
5				Other	10	
6				Palombi	62	
7				Prince of Peace	3	
8				St. Patricks	1	
9	19-20 LCCHS	Mathematics	Integrated Math 1 Honors	AUGS	26	
10				Millburn	17	
11				Other	1	
12				Palombi	19	
13				Prince of Peace	1	
14	19-20 LCCHS	Mathematics	Integrated Math 2 Honors	AUGS	10	
15				Millburn	22	
16				Palombi	20	
17				Prince of Peace	4	
18	19-20 LCCHS	Mathematics	Integrated Math 3 Honors	AUGS	1	
19				Millburn	10	
20				Palombi	2	
21	19-20 LCCHS	Special Education	Integrated Math 101	AUGS	2	
22				Millburn	4	
23				Palombi	3	
24	19-20 LCCHS	Special Education	Math 100	AUGS	1	
25				Palombi	4	



# D117 Feeder School Overview

Topic	K-2 Acceleration	3-5 Acceleration	6-8 Acceleration	Additional Notes
Millburn	No	3rd skip to 4th math	Again in 7th Grade	Adds Algebra and Geometry as needed
Emmons	No	3rd starts with groupings	Yes	Teaches more than one grade level in a year in 6th & 7th
Grass Lake	No	Enrichment only	Only as needed	Need is small and is addressed when needed
Lake Villa	No	3rd skip to 4th math	Continues	Moves from Integrated to Traditional

\*\*\* For more details, see slides later in presentation

# D34 Proposed Trajectories

COHORT	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
<b>2019</b> (8th)	Integrated Math 1					
<b>2020</b> (7th)	7th Grade & 8th Grade	Integrated Math 1				
<b>2021</b> (6th)	6th Grade & $\frac{1}{3}$ of 7th Grade	$\frac{2}{3}$ of 7th Grade & 8th Grade	Integrated Math 1			
<b>2022</b> (5th)	5th Grade & $\frac{1}{3}$ of 6th Grade	$\frac{2}{3}$ of 6th Grade & $\frac{2}{3}$ of 7th Grade	$\frac{1}{3}$ of 7th Grade & 8th Grade	Integrated Math 1		
<b>2023</b> (4th)	4th Grade & $\frac{1}{3}$ of 5th Grade	$\frac{2}{3}$ of 5th Grade & $\frac{2}{3}$ of 6th Grade	$\frac{1}{3}$ of 6th Grade & 7th Grade	8th Grade	Integrated Math 1	

\*\*\* No changes since last discussion

# D34 New Optional Trajectories

Option 1: 1 Year of Accelerated Math in grades 3-5

	K	1st	2nd	3rd	4th	5th	6th	7th	8th
2027 AUGS Math Plus Trajectory	No Changes	No Changes	No Changes	3rd Grade & 1/3 of 4th Grade	$\frac{2}{3}$ of 4th Grade & $\frac{1}{3}$ of 5th Grade	$\frac{1}{2}$ of 5th Grade and 6th Grade	7th Grade	8th Grade	Integrated Math 1
2027 AUGS Honors Math Trajectory	No Changes	No Changes	No Changes	3rd Grade & 1/3 of 4th Grade	$\frac{2}{3}$ of 4th Grade & $\frac{1}{3}$ of 5th Grade	$\frac{1}{2}$ of 5th Grade and 6th Grade	7th Grade & 8th Grade (alignment of concepts)	Integrated Math 1	Integrated Math 2

Option 2: Skips 3rd Grade Math

	K	1st	2nd	3rd	4th	5th	6th	7th	8th
2027 AUGS Math Plus Trajectory	Kinder	1st Grade	2nd Grade	4th Grade	5th Grade	6th Grade	7th Grade	8th Grade	Integrated Math 1
2027 AUGS Honors Math Trajectory	Kinder	1st Grade	2nd Grade	4th Grade	5th Grade	6th Grade	7th Grade & 8th Grade (alignment of concepts)	Integrated Math 1	Integrated Math 2

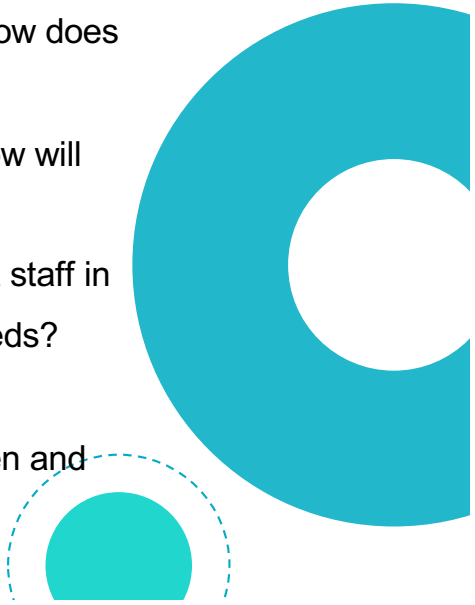
Option 3: Begin Acceleration in Kindergarten

	K	1st	2nd	3rd	4th	5th	6th	7th	8th
2027 AUGS Math Plus Trajectory	Kinder & 1st Grade	2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade	7th Grade	8th Grade	Integrated Math 1
2027 AUGS Honors Math Trajectory	Kinder & $\frac{1}{2}$ of 1st Grade	$\frac{2}{3}$ 1st Grade & $\frac{1}{3}$ of 2nd Grade	$\frac{1}{2}$ 2nd Grade & 3rd Grade	4th Grade & 1/3 of 5th Grade	$\frac{2}{3}$ of 5th Grade & $\frac{1}{3}$ of 6th Grade	$\frac{1}{2}$ of 6th Grade and 7th Grade	8th Grade	Integrated Math 1	Integrated Math 2



# Discussion Time


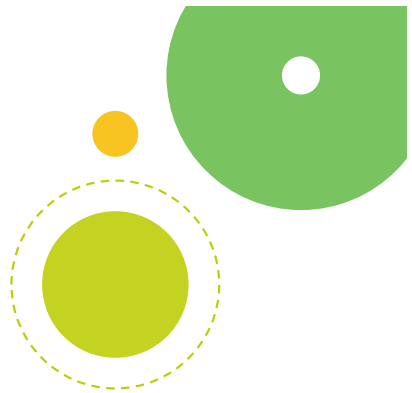


- Is D34 going to skip whole grade levels of math or pre-assess and consolidate?
  - How much content can be placed in one school year?
  - If acceleration takes place in Grades K-5, will there be three levels of math (accelerated, enriched, general education) or two (accelerated, general education) ?
  - With acceleration and/or enrichment qualifying student numbers, how does D34 address potential increases to general education class size?
  - With acceleration, flexible entry may create areas of need/gaps, how will these be addressed?
  - Can the district allocate funds, time, substitute coverage to support staff in any changes, communication and/or professional development needs?
  - How will the success of any changes be measured?
  - Is there time and opportunity to develop well rounded whole children and family relationships?
- 



# Additional Information

The slides after this one are for  
reference and will not be shared at  
the October 1 BOE meeting





[Click here to view a video of the information below](#)

## Day in the life of math in District 34



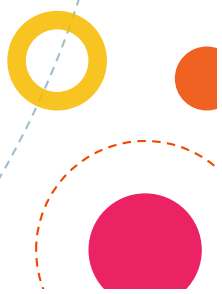
**Deon Obrochta** (K) Choice Boards are used to provide options in representing and comparing whole numbers, describing shapes and space, and mathematical language. Video Clip Focus: Students selected choice board opportunities to work on at home demonstrating knowledge of grade level topics.

**Andrea Pantke** (1st) Students use technology (Seesaw and Sketches apps) to record and share math processes and concepts in addition and subtraction strategies, whole number relationships and place value. Video Clip Focus: Students work on representing and solving addition and subtraction equations, finding equivalent equations, model math, and express/present their math reasoning.

**Becky Ingrum** (5th) Student ownership is fostered through discussion and choice while extending division using 2-digit divisors. Video Clip Focus: Becky encourages thoughtful student responses to open ended questions by providing think time. The lesson focus is shared with students encouraging them to support their thinking using tools, diagrams, and additional examples to support and explain computations.

**Julie Peters** (6th) Instructional time focuses on connecting ratios and rate to whole number multiplication and division and apply to solving problems. Students are encouraged to spend time understanding what a problem is asking of them and identify a strategy to support problem solving. Video Clip Focus: Reinforcing conceptual understanding of ratios and rates using models (tables, diagrams, and equations) students work through a real world problem. Collaborative discussion is student led and focused on inquiry.

**Andrea Russell** (7th) Grade level work focuses on understanding and applying proportional relationships. Student build upon their conceptual understanding of ratios and rates. Video Clip Focus: Student work highlights different ways to solve a problem while getting the same answer. Students are comfortable sharing out a variety of methods and discuss efficient ways to solve problems.



# Millburn Research

Traditional vs. Integrated: Elementary Traditional, Middle School Traditional

Curriculum: Elementary McGraw Hill My Math, Middle School McGraw Hill Connect Ed

Enriched Math:

- Differentiation K-2

Acceleration:

- Start in 3rd grade, students are moved to 4th Grade math, some 7th graders accelerate again (3 levels of math at 7th & 8th grade)

High School Freshman Placement: Integrated III Honors, Integrated II Honors, or Algebra II from the Gifted and Talented Group

Entrance Criteria: NWEA, Teacher Recommendation, Gifted Entrance, CogAt

Flexibility of Entry: Start of the School Year

# Emmons Research

Traditional vs. Integrated: K-8 Traditional Math except for Integrated Math I

Curriculum: Elementary: I-Ready, Middle School District Designed

Enriched Math:

- Start in 3rd grade: 2 groupings per cohort

Acceleration:

- 6th grade: teach 6th & part of 7th
- 7th grade: teach rest of 7th & 8th
- 8th grade: Integrated Math I

High School Freshman Placement: Integrated Math II Honors

Entrance Criteria: NWEA, IAR, and FastBridge Learning

Flexibility of Entry: Start of the Year & Middle Year



# Grass Lake Research

Traditional vs Integrated Math: Elementary Traditional, 8th Grade Integrated

Curriculum: Elementary: ORIGO & Model Math , Middle School Pearson EnVision

Enriched Math:

- Differentiated in the Classroom K-8, Math Specialist supports classroom and students

Acceleration:

- As needed, 8th Graders can place into Integrated Math 1

High School Freshman Placement: Integrated Math II Honors

Entrance Criteria: NWEA D117 Scores 235-250

Flexibility of Entry: Not a need since small school

Challenges: only one class at each grade level, difficult to group

# Lake Villa Research

Traditional vs. Integrated: Elementary Integrated, Middle School Traditional and Integrated

Curriculum: Elementary: Pearson EnVision, Pearson Algebra and Geometry

Enriched Math:

- Differentiation K-2

Acceleration:

- Start in 3rd grade, students are moved to 4th Grade math

High School Freshman Placement: Integrated Math II Honors

Entrance Criteria: Teacher Recommendation, Math Assessment Data, CogAt

Flexibility of Entry: Start of the School Year

Challenges: Equitable class sizes, bus transportation if students are moved to higher grade level for math