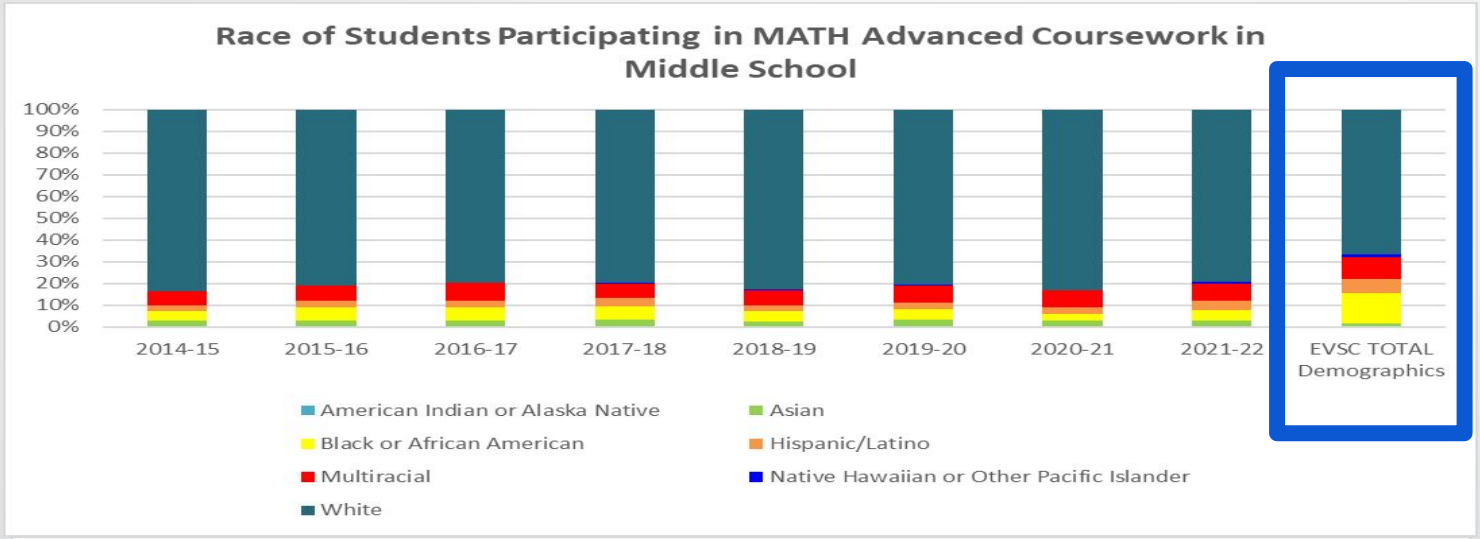
Equitable Opportunities for Advanced Coursework in Middle Grades

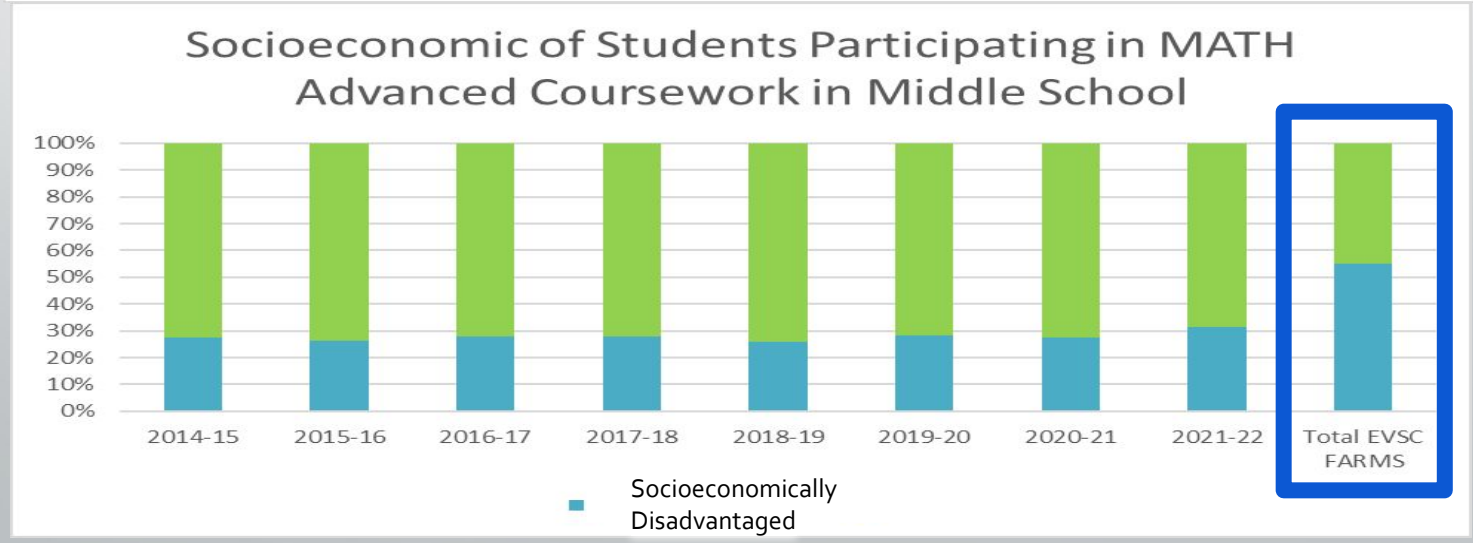
An approach to diversifying student populations in advanced-level courses

Evansville Vanderburgh School Corporation

Problem Statement

EVSC does not have enough students from underrepresented groups who are ready to take advanced coursework in high school.





The demographics of our students enrolled in advanced coursework for mathematics is not comparable with where we are as a district when looking at overall demographics.

Student Selection Tool

Demographic Performance
- High Ability Status
- Economic Status
- Ethnic Status

Range 0 - 3

Math Assessment Performance
- NWEA Fall or Winter Math Above Standard
- State Assessment Math Above Proficiency

Range 0 - 1

Math Grade Performance
- A or B in Math Class

Range 0 - 2

ELA Grade Performance
- A or B in ELA Class

Range 0 - 2

ELA/Reading Assessment Performance
- NWEA Fall or Winter Reading Above Standard
- State Assessment ELA Above Proficiency

Range 0 - 1

Reading Grade Performance
- A or B in Reading Class

Range 0 - 2

Survey Performance
- Extracurricular Activities
- Course Performance
- Honors Course Interests
- Fixed vs Growth Intelligence
- Focus/Self Control

Range 0 - 5

Student Selection Tool

High Ability Flag	HA Category	Economically Disadvantaged	Econ Dis Category	Ethnicity Description	Ethnicity Category		SURVEY PERFORMANCE Range 0 - 5	DEMOGRAPHIC CATEGORY PERFORMANCE Range 0 - 3	MATH ASSESSMENT PERFORMANCE Range 0 - 1	ELA/READING ASSESSMENT PERFORMANCE Range 0 - 1	ELA GRADES PERFORMANCE Range 0 - 2	READ GRADES PERFORMANCE Range 0 - 2	MATH GRADES PERFORMANCE Range 0 - 2
N	0	Y	1	Black or African American	1		1	2	0	0	1	1	2
N	0	Y	1	Black or African American	1		1	2	0	0	0	0	0
N	0	Y	1	Black or African American	1		2	2	0	0	1	0	1
N	0	Y	1	Hispanic/Latino	1		2	2	0	0	0	1	0
N	0	Y	1	Hispanic/Latino	1		4	2	0	0	0	1	1
N	0	Y	1	Multiracial	1			2	0	0	1	1	0
N	0	N	0	Black or African American	1		2	1	1	1	2	1	2
N	0	Y	1	White	0		2	1	1	1	0	0	1
N	0	Y	1	Hispanic/Latino	1		1	2	1	0	0	0	0
N	0	N	0	White	0		4	0	0	0	1	1	1
N	0	Y	1	Black or African American	1		3	2	0	0	0	0	0
N	0	Y	1	Multiracial	1		1	2	0	0	0	1	0
N	0	N	0	White	0		3	0	1	0	2	2	2
N	0	Y	1	White	0		4	1	0	0	1	1	1
Y	1	Y	1	Black or African American	1			3	1	1	0	1	1
N	0	N	0	White	0		3	0	1	0	0	1	1
N	0	N	0	Black or African American	1		1	1	0	0	1	1	1
N	0	N	0	White	0		2	0	1	0	1	2	1
N	0	Y	1	Black or African American	1			2	0	0	0	0	1
N	0	N	0	White	0		1	0	1	1	1	1	0
N	0	Y	1	White	0		1	1	0	0	0	0	0

Student Selection Activity

	Demographics	Survey Performance	Math Results	ELA Results	Math Grade	ELA Grade	Reading Grade
Student 1	1	0	1	1	0	0	1
	Black, Econ Dis N, Not HA	Low, 2	Met 1	Met 1	C	C	B
Student 2	2	1	1	1	0	1	1
	Hispanic, Econ Dis N, HA in Both	High, 4	Met All 3	Met 1	C	B	B
Student 3	3	1	1	0	0	2	1
	Hispanic, Econ Dis Y, HA in Math	High, 5	Met All 3	Met None	C	A	B
Student 4	1	0	1	1	0	0	0
	White, Econ Dis Y, Not HA	Low, 1	Met 1	Met 3	C	D	C
Student 5	1	1	1	1	1	0	1
	Asian, Econ Dis N, HA in Math	High, 3	Met 2	Met 1	B	C	B
Student 6	2	1	1	1	2	2	1
	Multiracial, Econ Dis N, HA in ELA	High, 4	Met 1	Met 1	A	A	B
Student 7	2	1	0	1	2	1	1
	Black, Econ Dis Y, Not HA	High, 5	Met None	Met 1	A	B	B
Student 8	2	1	1	1	1	2	0
	Multiracial, Econ Dis Y, Not HA	High, 5	Met 1	Met 2	B	A	C

Student Selection Activity
Our Thoughts

	Math		ELA	
	Chosen for Honors Class	In the Past	Chosen for Honors Class	In the Past
Student 1	N	N	N	N
Student 2	Y	Y	Y	Y
Student 3	Y	Y	Y	N
Student 4	N	N	Y	Y
Student 5	Y	Y	Y	N
Student 6	Y	N	Y	Y
Student 7	Y	N	Y	N
Student 8	Y	N	Y	y

Student Selection Activity
Our Thoughts

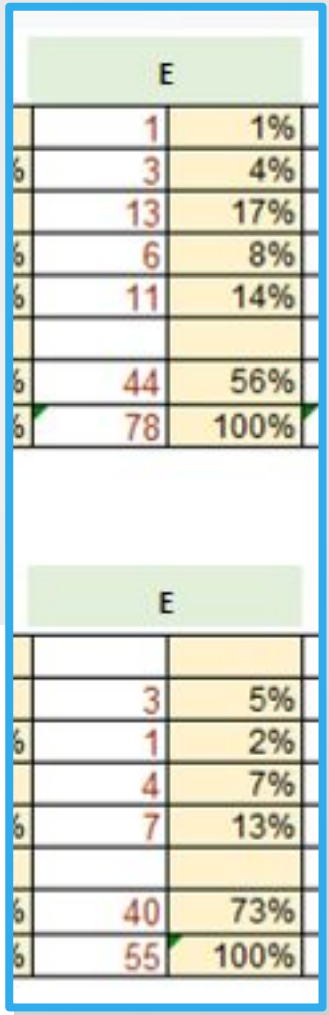
	Demographics	Survey Performance	Math Results	ELA Results	Math Grade	ELA Grade	Reading Grade	Math		ELA	
								Chosen for Honors Class	In the Past	Chosen for Honors Class	In the Past
Student 1	1	0	1	1	0	0	1	N	N	N	N
	Black, Econ Dis N, Not HA	Low, 2	Met 1	Met 1	C	C	B				
Student 2	2	1	1	1	0	1	1	Y	Y	Y	Y
	Hispanic, Econ Dis N, HA in Both	High, 4	Met All 3	Met 1	C	B	B				
Student 3	3	1	1	0	0	2	1	Y	Y	Y	N
	Hispanic, Econ Dis Y, HA in Math	High, 5	Met All 3	Met None	C	A	B				
Student 4	1	0	1	1	0	0	0	N	N	Y	Y
	White, Econ Dis Y, Not HA	Low, 1	Met 1	Met 3	C	D	C				
Student 5	1	1	1	1	1	0	1	Y	Y	Y	N
	Asian, Econ Dis N, HA in Math	High, 3	Met 2	Met 1	B	C	B				
Student 6	2	1	1	1	2	2	1	Y	N	Y	Y
	Multiracial, Econ Dis N, HA in ELA	High, 4	Met 1	Met 1	A	A	B				
Student 7	2	1	0	1	2	1	1	Y	N	Y	N
	Black, Econ Dis Y, Not HA	High, 5	Met None	Met 1	A	B	B				
Student 8	2	1	1	1	1	2	0	Y	N	Y	y
	Multiracial, Econ Dis Y, Not HA	High, 5	Met 1	Met 2	B	A	C				

Enrollment in Math Honors Class

Again, School E had the most favorable change in distribution of students from ethnically diverse backgrounds. From school year 2021-22 to 2022-23 the percentage of student rose from 27% to 44%.

Fall 2022-23	All Schools		A		B		C		D		E		F		G		H	
American Indian or Alaska Native	2	1%									1	1%	1	4%				
Asian	7	2%							1	1%	3	4%	1	4%	1	2%	1	4%
Black or African American	25	7%			4	25%	1	2%			13	17%			1	2%	6	24%
Hispanic/Latino	15	4%	1	2%	2	13%			1	1%	6	8%			3	5%	2	8%
Multiracial	26	7%	6	13%			1	2%	2	3%	11	14%			3	5%	3	12%
Native Hawaiian or Other Pacific Islander	1	0.3%			1	6%												
White	294	79%	41	85%	9	56%	40	95%	75	95%	44	56%	24	92%	48	86%	13	52%
	370	100%	48	100%	16	100%	42	100%	79	100%	78	100%	26	100%	56	100%	25	100%

Fall 2021-22	All Schools		A		B		C		D		E		F		G		H	
American Indian or Alaska Native	1	0.3%											1	2%				
Asian	8	2%	1	2%	1	6%					3	5%	2	4%			1	5%
Black or African American	9	3%	1	2%	1	6%	1	2%	2	4%	1	2%			1	2%	2	9%
Hispanic/Latino	12	3%	1	2%	2	11%	2	5%			4	7%			1	2%	2	9%
Multiracial	29	8%	4	7%	2	11%	3	7%	5	9%	7	13%	2	4%	3	6%	3	14%
Native Hawaiian or Other Pacific Islander	1	0.3%			1	6%												
White	292	83%	49	88%	11	61%	35	85%	50	88%	40	73%	44	90%	49	91%	14	64%
	352	100%	56	100%	18	100%	41	100%	57	100%	55	100%	49	100%	54	100%	22	100%



E	
1	1%
3	4%
13	17%
6	8%
11	14%
44	56%
78	100%

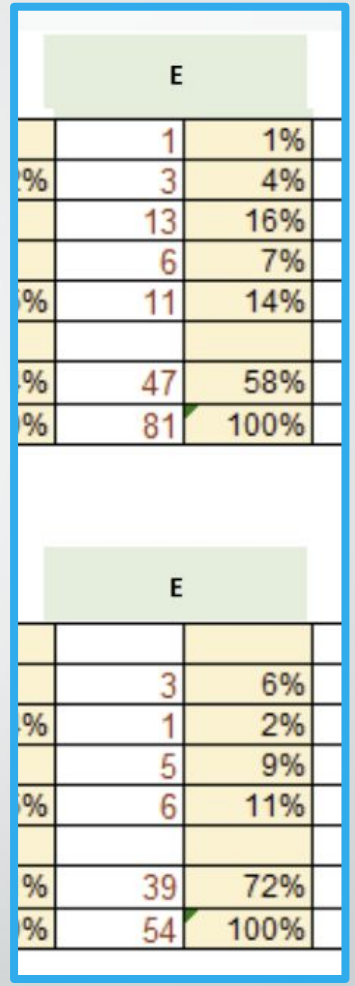
E	
3	5%
1	2%
4	7%
7	13%
40	73%
55	100%

Enrollment in Language Arts Honors Class

The school that had the most favorable change in distribution of students from ethnically diverse backgrounds was School E. From school year 2021-22 to 2022-23 the percentage of student rose from 28% to 42%.

Fall 2022-23	All Schools		A		B		C		D		E		G		H	
American Indian or Alaska Native	1	0.3%									1	1%				
Asian	7	2%			1	8%			1	2%	3	4%	1	1%	1	4%
Black or African American	19	6%			1	8%	1	2%			13	16%	1	1%	3	12%
Hispanic/Latino	15	5%	1	4%	2	17%					6	7%	4	5%	2	8%
Multiracial	26	8%	2	7%	1	8%	2	5%	3	5%	11	14%	5	6%	2	8%
Native Hawaiian or Other Pacific Islander	1	0.3%											1	1%		
White	261	79%	24	89%	7	58%	41	93%	58	94%	47	58%	67	85%	17	68%
	330	100%	27	100%	12	100%	44	100%	62	100%	81	100%	79	100%	25	100%

Fall 2021-22	All Schools		A		B		C		D		E		G		H	
American Indian or Alaska Native																
Asian	8	3%	1	3%							3	6%			1	4%
Black or African American	9	3%			2	11%	1	2%	2	4%	1	2%	1	2%	2	9%
Hispanic/Latino	10	3%			2	11%	1	2%			5	9%	1	2%	1	4%
Multiracial	28	9%	2	6%	5	28%	3	7%	3	5%	6	11%	3	6%	5	22%
Native Hawaiian or Other Pacific Islander																
White	265	83%	28	90%	9	50%	36	88%	52	91%	39	72%	48	91%	14	61%
	320	100%	31	100%	18	100%	41	100%	57	100%	54	100%	53	100%	23	100%



E		
	1	1%
%	3	4%
	13	16%
	6	7%
%	11	14%
%	47	58%
%	81	100%

E		
	3	6%
%	1	2%
	5	9%
%	6	11%
%	39	72%
%	54	100%

Enrollment Based on Socioeconomic Indicators

Enrollment in Language Arts Honors Class

Fall 2022-23

	All Schools		A		B		C		D		E		F		G		H	
Econ Dis Y	125	37%	2	7%	9	75%	7	16%	13	21%	40	49%			32	41%	14	56%
Econ Dis N	216	63%	25	93%	3	25%	37	84%	49	79%	41	51%			47	59%	11	44%
	341	100%	27	100%	12	100%	44	100%	62	100%	81	100%			79	100%	25	100%

Fall 2021-22

	All Schools		A		B		C		D		E		F		G		H	
Econ Dis Y	97	30%	7	23%	17	94%	10	24%	16	28%	19	35%	4	9%	14	26%	10	43%
Econ Dis N	223	70%	24	77%	1	6%	31	76%	41	72%	35	65%	39	91%	39	74%	13	57%
	320	100%	31	100%	18	100%	41	100%	57	100%	54	100%	43	100%	53	100%	23	100%

Enrollment in Math Honors Class

Fall 2022-23

	All Schools		A		B		C		D		E		F		G		H	
Econ Dis Y	113	31%	10	21%	10	63%	6	14%	17	22%	39	50%			16	29%	15	60%
Econ Dis N	257	69%	38	79%	6	38%	36	86%	62	78%	39	50%	26	100%	40	71%	10	40%
	370	100%	48	100%	16	100%	42	100%	79	100%	78	100%	26	100%	56	100%	25	100%

Fall 2021-22

	All Schools		A		B		C		D		E		F		G		H	
Econ Dis Y	103	29%	16	29%	17	94%	8	20%	17	30%	19	35%	3	6%	15	28%	8	36%
Econ Dis N	249	71%	40	71%	1	6%	33	80%	40	70%	36	65%	46	94%	39	72%	14	64%
	352	100%	56	100%	18	100%	41	100%	57	100%	55	100%	49	100%	54	100%	22	100%

E	
40	49%
41	51%
81	100%

E	
19	35%
35	65%
54	100%

G	
32	41%
47	59%
79	100%

G	
14	26%
39	74%
53	100%

E	
39	50%
39	50%
78	100%

E	
19	35%
36	65%
55	100%

H	
15	60%
10	40%
25	100%

H	
8	36%
14	64%
22	100%

Grades in Honors Class

In taking a closer look at School E, students tended to receive grades of A or B regardless of ethnic background in both Language Arts and Math. Similarly, regardless of socioeconomic background, students tended to receive grades of A or B in Schools E and G.

School E

LANGUAGE ARTS 6H	Semester 1			Grading Period 3		
	Grade of A or B	Total Students	Percent Grade of A or B	Grade of A or B	Total Students	Percent Grade of A or B
Asian	1	1	100%	1	1	100%
Black or African American	10	10	100%	10	11	90.9%
Hispanic/Latino	5	5	100%	4	5	80.0%
Multiracial	12	12	100%	11	12	91.7%
White	45	46	97.8%	35	46	76.1%
Total	73	74	98.6%	61	75	81.3%

School E

MATH 6H	Semester 1			Grading Period 3		
	Grade of A or B	Total Students	Percent Grade of A or B	Grade of A or B	Total Students	Percent Grade of A or B
Asian	1	1	100%	1	1	100%
Black or African American	8	10	80.0%	9	11	81.8%
Hispanic/Latino	5	6	83.3%	4	6	66.7%
Multiracial	12	13	92.3%	12	13	92.3%
White	36	43	83.7%	34	43	79.1%
Total	62	73	84.9%	60	74	81.1%

School E

LANGUAGE ARTS 6H	Semester 1			Grading Period 3		
	Grade of A or B	Total Students	Percent Grade of A or B	Grade of A or B	Total Students	Percent Grade of A or B
Economically Disadvanted Y	36	37	97.3%	31	39	79.5%
Economically Disadvanted N	36	36	100%	29	35	82.9%
Total	72	73	98.6%	60	74	81.1%

School E

MATH 6H	Semester 1			Grading Period 3		
	Grade of A or B	Total Students	Percent Grade of A or B	Grade of A or B	Total Students	Percent Grade of A or B
Economically Disadvanted Y	31	38	81.6%	31	39	79.5%
Economically Disadvanted N	30	34	88.2%	29	35	82.9%
Total	61	72	84.7%	60	74	81.1%

School G

LANGUAGE ARTS 6H	Semester 1			Grading Period 3		
	Grade of A or B	Total Students	Percent Grade of A or B	Grade of A or B	Total Students	Percent Grade of A or B
Economically Disadvanted Y	28	29	96.6%	27	28	96.4%
Economically Disadvanted N	46	46	100%	43	44	97.7%
Total	74	75	98.7%	70	72	97.2%

School H

MATH 6H	Semester 1			Grading Period 3		
	Grade of A or B	Total Students	Percent Grade of A or B	Grade of A or B	Total Students	Percent Grade of A or B
Economically Disadvanted Y	8	15	53.3%	9	14	64.3%
Economically Disadvanted N	8	10	80.0%	9	10	90.0%
Total	16	25	64.0%	18	24	75.0%

Follow Up from Summer Growth Mindset Professional Development

Thinking about the Kagan Growth Mindset workshop, do you feel like it has changed any of your approach to teaching this year? If so, what is different?

Yes, I liked the different "open ended" approach to problem solving.

Yes, it has made me think of ways to bring Kagan back into the classroom after a few years of not using it because of COVID.

Yes, the workshop gave me the confidence I needed to trust myself with Kagan.

Using the strategies to foster engagement and promote students working together. It also increases student communication to share thinking about strategies used in problem solving.

Have you used any of the problems with your classes that we did this summer in the math PD? If so, how did it go?

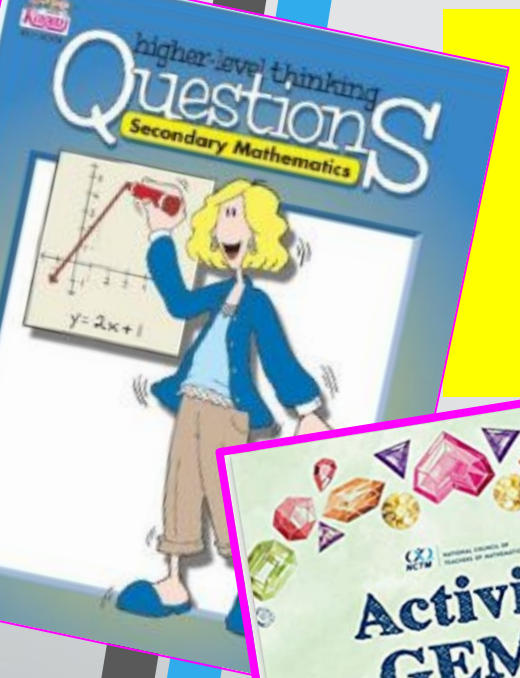
The students loved the engagement and motivated to discuss and problem solve together.

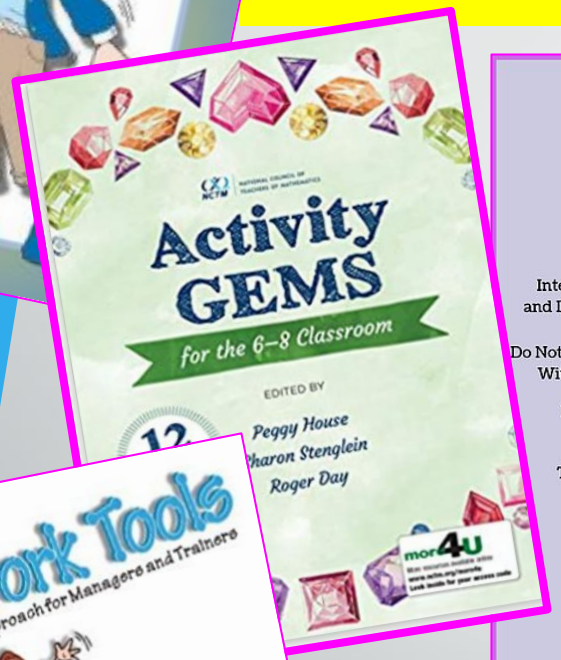
One of the problems went well with all classes. Two of the problems went well only for the honors class.

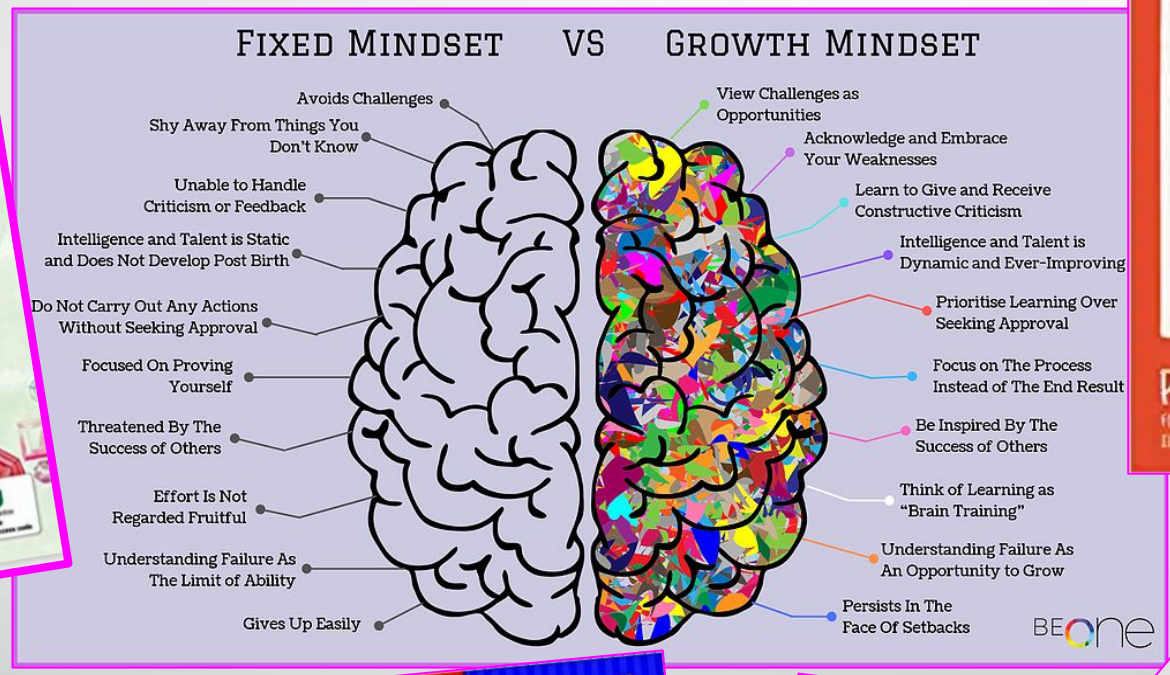
It was good. Productive struggle is always a challenge at first until they realize that this is ok.

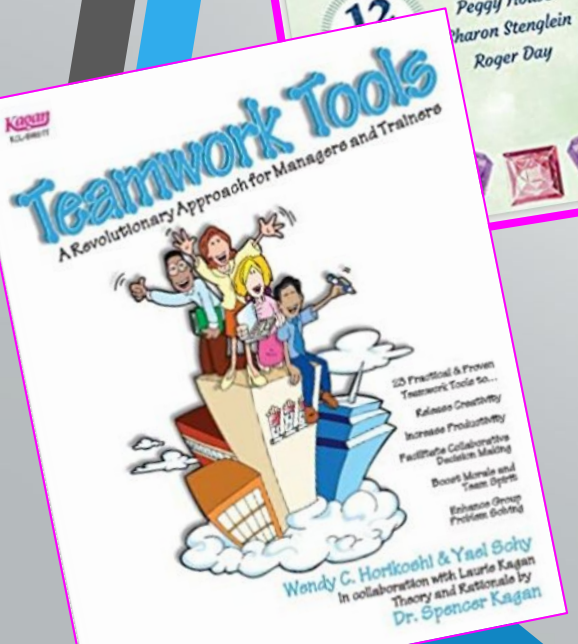
I gave my students the Penny Collection problem today. They did not have as much time as I would have liked to work on it in class, but I figured it was now or never for me to start integrating the problem solving! I wanted to share with you that I had a couple of students stop me at lunch or between classes to show me what they came up with, one being a student that often does not have her homework done. That was pretty exciting!

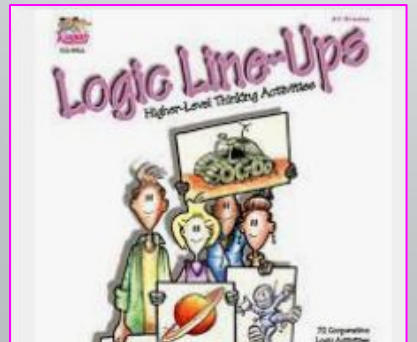
Summer PD: Kagan Growth Mindset/Math Growth Mindset Follow Up

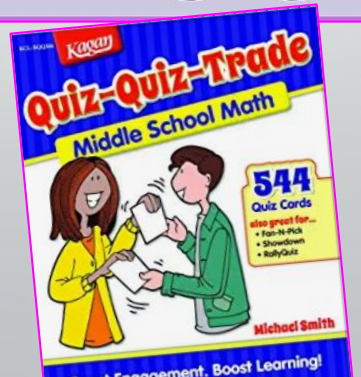


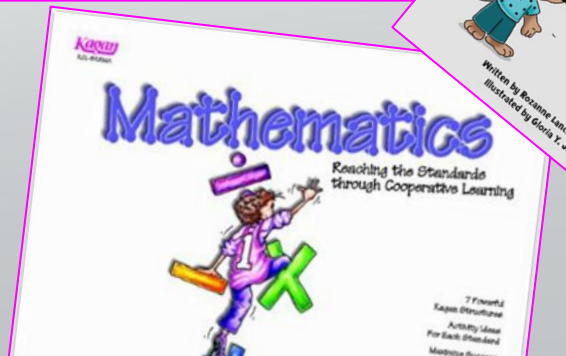


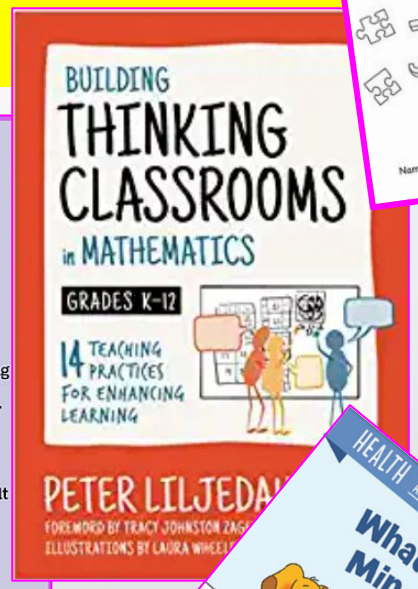


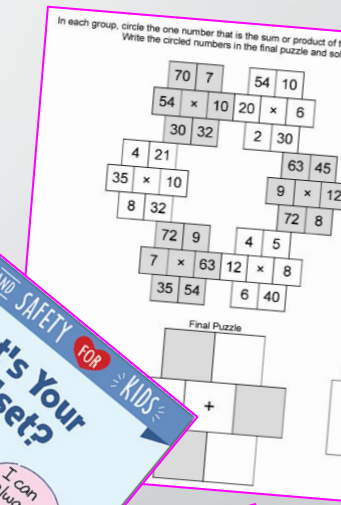


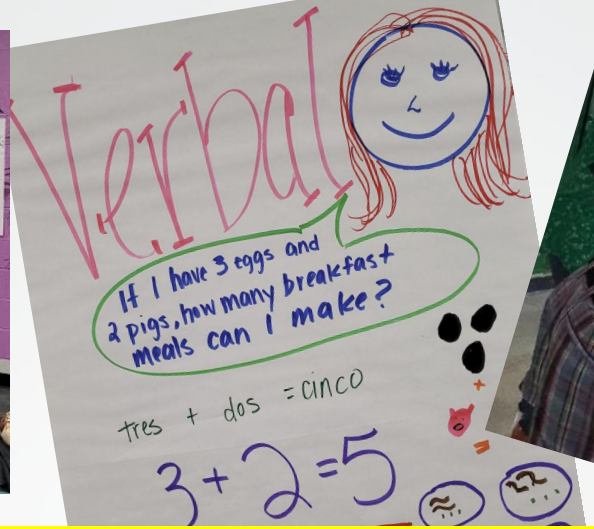




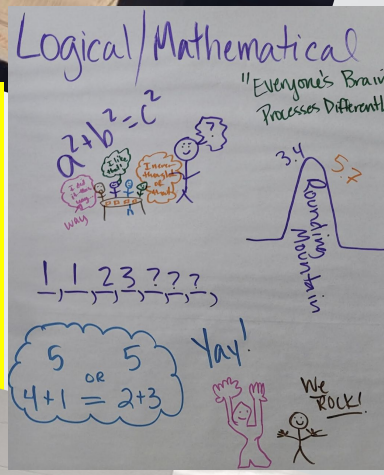


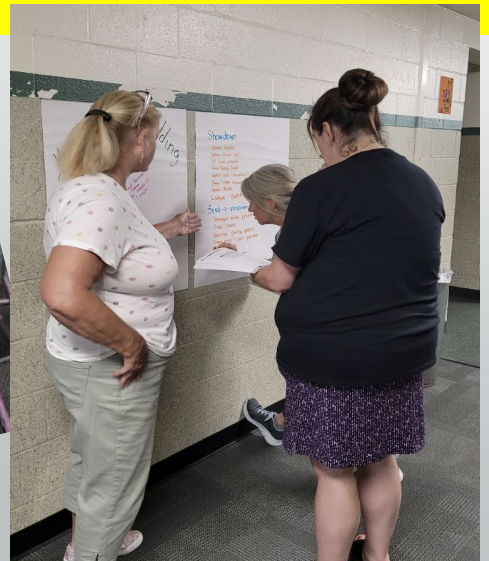


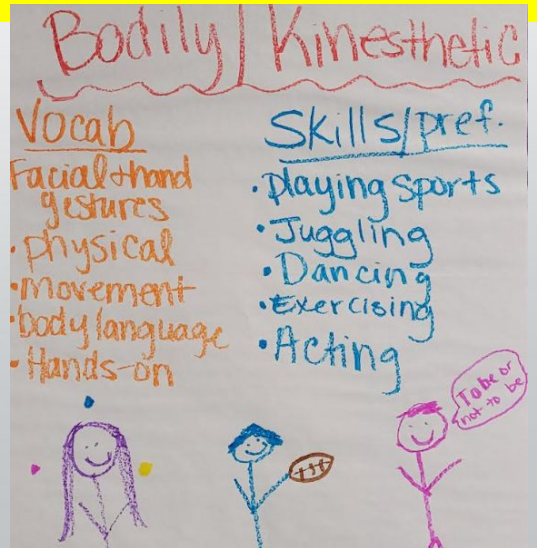




Summer PD: Kagan Growth Mindset/Math Growth Mindset Follow Up







Summer PD: Kagan Growth Mindset/Math Growth Mindset Follow Up

		week 1	week 2	week 3	week 4	week 5	week 6	week 7	week 8	week 9	week 10	week 11	week 12	week 13	week 14	week 15	week 16	week 17	week 18
6th grade	description	use 3 3's to make the numbers 1 - 12	Leo the Rabbit, climbing stairs pattern	Coin problem - p.206 Building Thinking Classrooms book	3 by 3 algebra painted cube	Mixed up 100's Chart - figuring out the numbers	Pattern seeking with hundreds charts	Number Sense Word Problem - which cookie deal is better and justify	Number sense problem wtih money	Students must make a schedule using parameters for an activity day	You must choose from different chores to earn screen time in your house	Representing Shaded Areas of Rectangular Grids Article and Description	You need to make a schedule for a celebrity to follow to meet all of the criteria	Look over a set of data and make some decisions with justification	Using length and perimeter to find area and justify	Arrays, area and multiplication	Using cubes to explore prisms and find ways to collect and organize data	Which birthday cake would you rather have if you have to share it with others?	Data Exploration - different pieces of data and students have to look at and understand
	link	Four 4's - modify from original	Leo the Rabbit handout	Penny Line up problem	Painted Cube Handout modified from original	Activity with the 100's chart	Crakers handout and guide	Which Cookie?	To get to a million	Intermediate Activity Day	Earning Screen Time	Rectangular Grid Activity IRectangular Grid Activity II	Celebrity Travel Planning	Selling Cookies	Cheez IT perimeter and area	worksheet link for activity	30 cubes handout	Birthday cake pieces	Dear Data Handout
	source	youcubed.org	yoububed.org	Building Thinking Classrooms	youcubed.org website	Building Thinking Classrooms	youcubed.org	would you rather website	would you rather website	numeracy tasks from Peter Liljedahl	numeracy tasks from Peter Liljedahl	Activity Gems for the 6 -8 Classroom	numeracy tasks from Peter Liljedahl	numeracy tasks from Peter Liljedahl	would you rather website	youcubed.org	youcubed.org	would you rather website	youcubed.org
7th grade	description	use 4 4's to make the numbers 1-20	working with factors and remainders	Circle Fever - Continuing the pattern and finding the rule	4X4 algebra painted cube	Would you rather exploration on Tipping at a Restaurant	Which Pool would you rather have - volume	Would you rather on a percent off coupon	Students are given dimensions and a grid to plan the layout of a school	Reasoning about Sums of Consecutive Numbers	You are given 3 different fundraising options and you need to decide which is the best and justify	Proportional Relationships with Jolly Ranchers and Jawbreakers	Mixing paint problem - could easily expand on this	Using a data set, students must make fair teams and justify	Using number tiles to find comp and supp angles	Figuring out distance and which path will work best	Problem solving with stipulations to follow to build a garden	Figuring out combinations of ice creams	Find the right numbers to make the angles work
	link	Four 4's	Pennies grouping task	Circle Fever	Painted Cube Handout	TIpping would you rather	Which Pool Problem	free gift or 20% off	Designing a New School	Sum Thing Activity Recording Sheet for Sum Things	Terry Fox Fundraiser	Jolly Ranchers and Jawbreakers	Handout for problem for AF.9	Fair Teams	Finding Comp and Supp Angles	The Two BIke Race	Building a Garden	Directions for Ice Cream Poster and Task	Comp/Supp angles
	source	youcubed.org	youcubed.org	Youcubed.org	youcubed.org website	would you rather website	would you rather website	would you rather website	numeracy tasks from Peter Liljedahl	Activity Gems for the 6 -8 Classroom	numeracy tasks from Peter Liljedahl	DOE task	pulled from Clarifying Ex	numeracy tasks from Peter Liljedahl	Open Middle	numeracy tasks from Peter Liljedahl	numeracy tasks from Peter Liljedahl	youcubed.org	Open Middle Resource
8th grade	description	use 5 5's to make as many numbers possible from 1 - 125	Using number tiles to approximate an irrational number	Building Squares and Finding Patterns	5x5 algebra painted cube	students use a gameboard to figure out why patterns work and do not work	exploring exponent rules and patterns	Finding consecutive numbers and the formulas with the 100's chart as a possbile guide	Would you rather percent exploration with pizza - coudl change up with size of pizzas	Choose the Best Cell Phone Plan given different info for 6 companies	Students use some data and a map to plan different Adventures at a Theme park	Week 1 of Algebra Exploring problems - Day 1 & 2	Week 1 of Algebra Exploring problems - Day 3,4,5	Week 2 of Algebra Exploring problems - Day 1	Week 2 of Algebra Exploring problems - Day 2-5	Week 3 of Algebra Exploring problems - Day 1 - 3	Week 3 of Algebra Exploring problems - Day 4 & 5	Week 4 of Algebra Exploring problems - Day 1 & 2	Week 4 of Algebra Exploring problems - Day 3,4 & 5
	link	Four 4's - modify from original	Approximating a square root - number tile	**Making Squares Template**	Painted Cube Handout modified from original	Jo's Pennies adn Paperclips problem	Exponent handout	Consecutive Numbers Handout and Guide	Best Pizza Deal	Cell Phone Plan	Playland Adventures	Border Problem	Seeing & Describing Linear Functions	Raindrop	Investigation of Patterns Menu	Apple Orchard	Shape of Things	More on the Paint Cubes	Cantor Ternary Set
	source	youcubed.org	Open Middle Resource	Kagan Resource	youcubed.org website	youcubed.org website search	youcubed.org website search	youcubed.org	would you rather website	numeracy tasks from Peter Liljedahl	numeracy tasks from Peter Liljedahl	youcubed.org	youcubed.org	youcubed.org	youcubed.org	youcubed.org	youcubed.org	youcubed.org	youcubed.org

Moving Ahead for the Next School Year

Participating schools have given the survey and used the results to enroll students for next year

Non-participating schools are wanting to learn more about the tool and what other schools are doing

Teachers are inquiring about additional PD this summer

Continue to expand on the problem solving opportunities with all students