AMPHITHEATER
Public Schools

Academic Coordinators

Polly Kimminau, *Math*

Pam Vandivort, *STEM*

Karla Campillo-Soto, *Literacy*

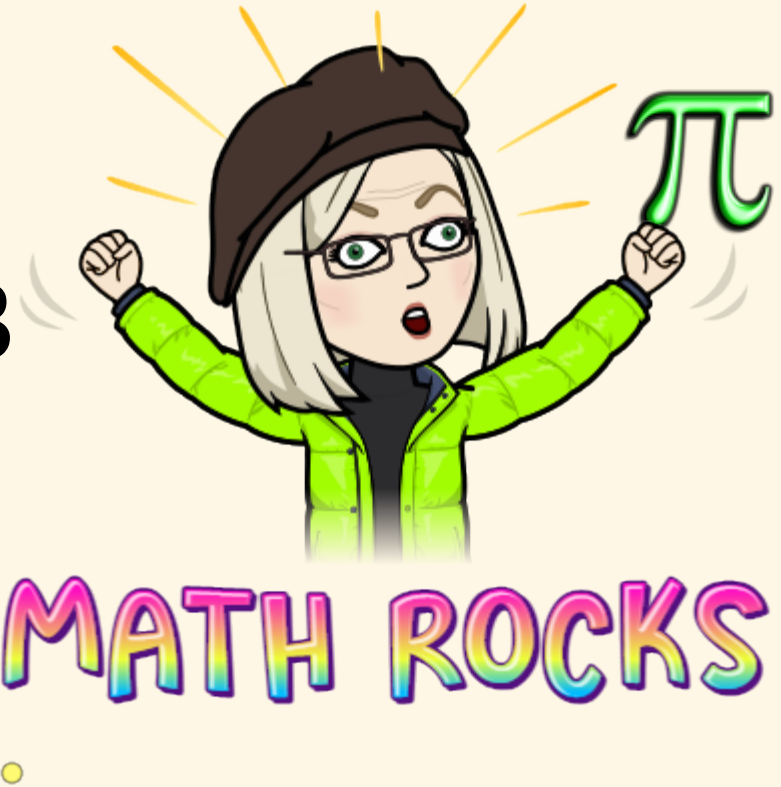
Amphitheater Public Schools
PORTRAIT OF A GRADUATE

Math Around the District

AMPHITHEATER Public Schools

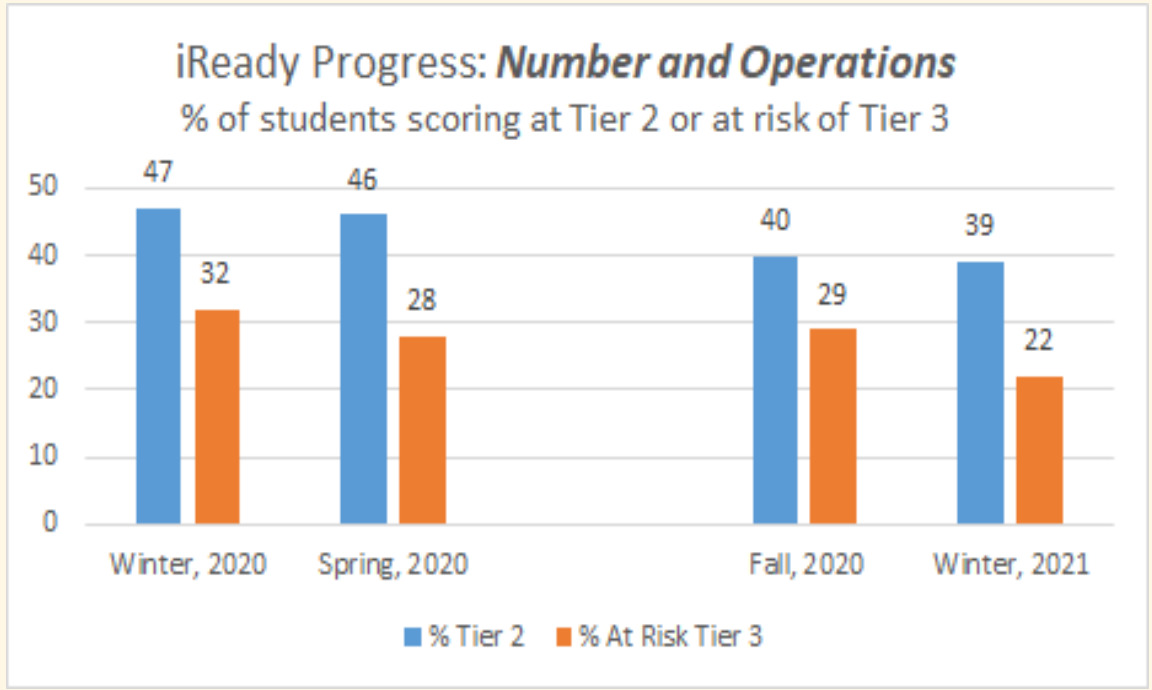
Tonight's focus will be on…

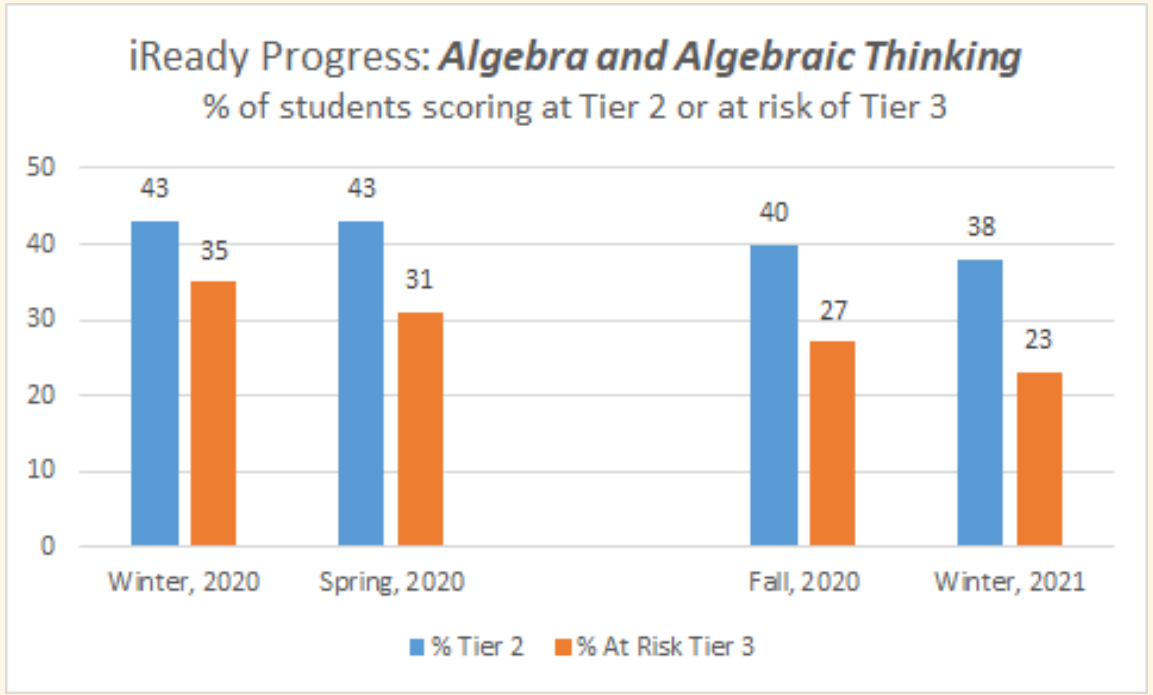
1. The Data Story, Chapters 1-3
1. Number Talks: Elementary
1. ALEKS: Secondary
1. Feeder Pattern Collaboration: Secondary



The Data Story, Chapter 1: Grades 2-5...

For the past 1.5 years, attention has been focused in the areas of ***Number and Operations*** and ***Algebra and Algebraic Thinking***. The data below show fewer 2nd-5th grade students at the Tier 2 or At Risk for Tier 3 levels of Intervention.



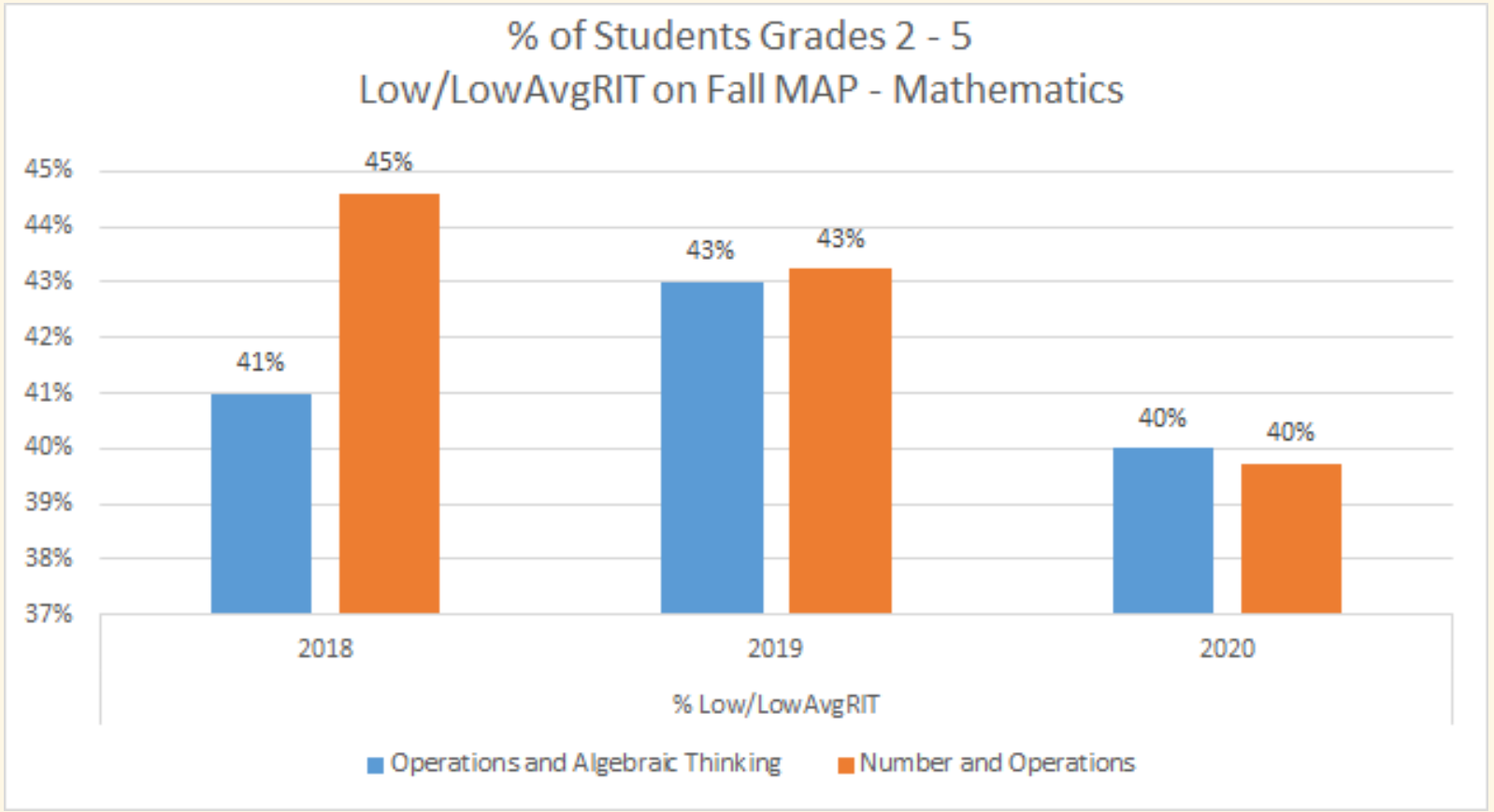


Winter, 2020 to Winter, 2021
Tier 2: **17% decrease (blue)**
At Risk for Tier 3: **31% decrease (orange)**

Winter, 2020 to Winter, 2021
Tier 2: **12% decrease (blue)**
At Risk for Tier 3: **34% decrease (orange)**

The Data Story, Chapter 1: Grades 2-5...

The data below show fewer students scoring at the Low/LowAvgRIT on the **Fall, 2020, MAP Test** in ***Operations and Algebraic Thinking*** and ***Number and Operations***.



<u>Fall, 2019 to Fall, 2020</u>

Operations and Algebraic Thinking: **7% decrease (blue)**

Number and Operations: **7% decrease (orange)**

Number Talks: What are they?

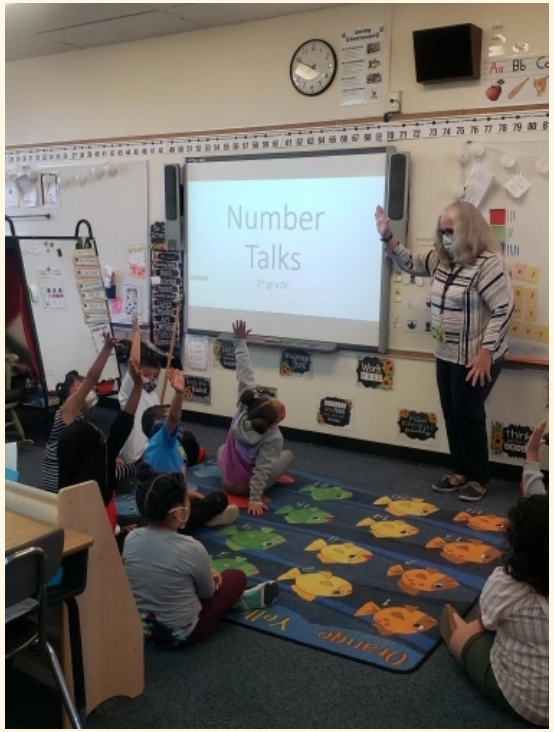
Brief instructional routines where students:

a. mentally solve problems
b. talk about their strategies.
c. work flexibly with numbers
d. build a solid foundation in number sense.
e. gain confidence in sharing solutions and strategies.
f. consider different perspectives on how a problem can be solved.
g. reflect on and compare solutions.

Connections to the

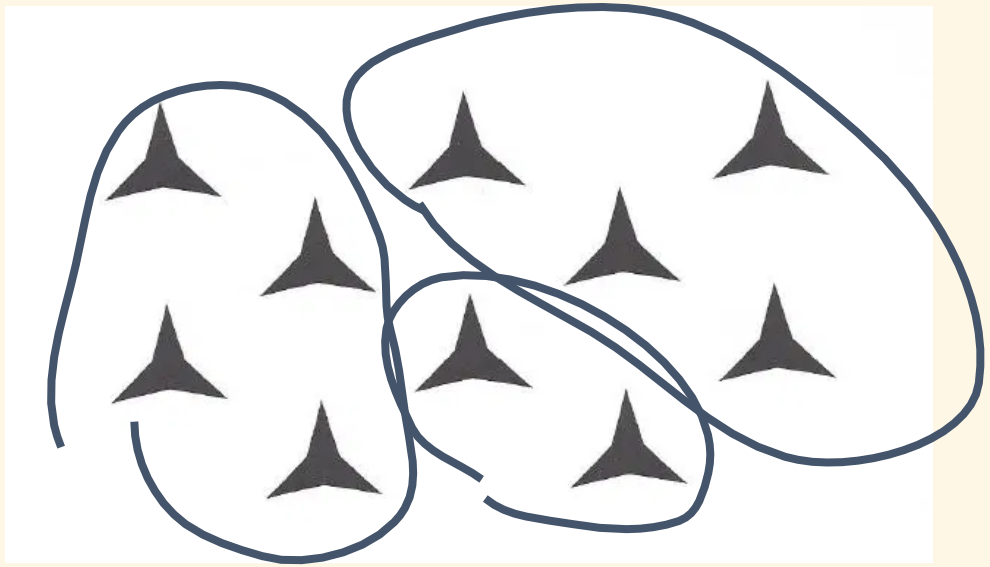
Portrait of a Graduate!

- Creative Thinking
- Collaboration
- Critical Thinking
- Academic Content
- Communication
- Caring
- Citizenship
- Problem Solving

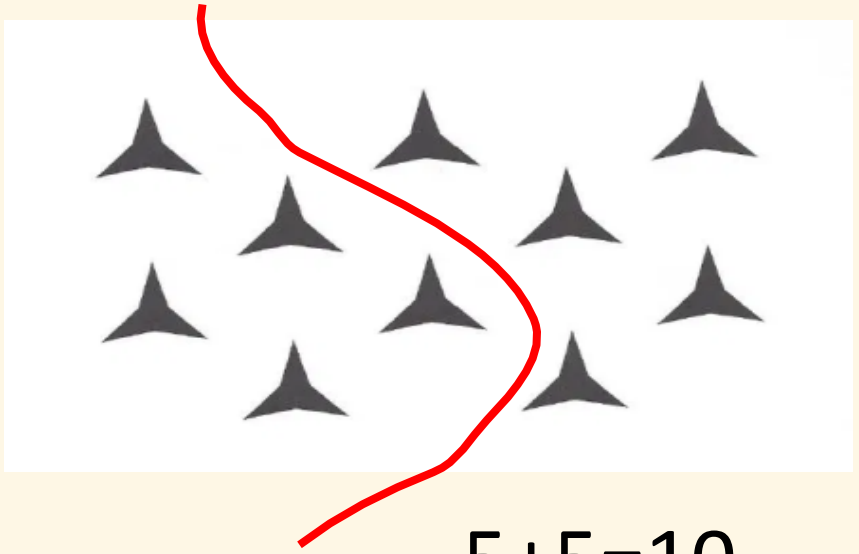


Photos are from Meghan Blayda's (1st grade) and Corina Charles's (5th grade) classes at Keeling Elementary

Number Talk Example:

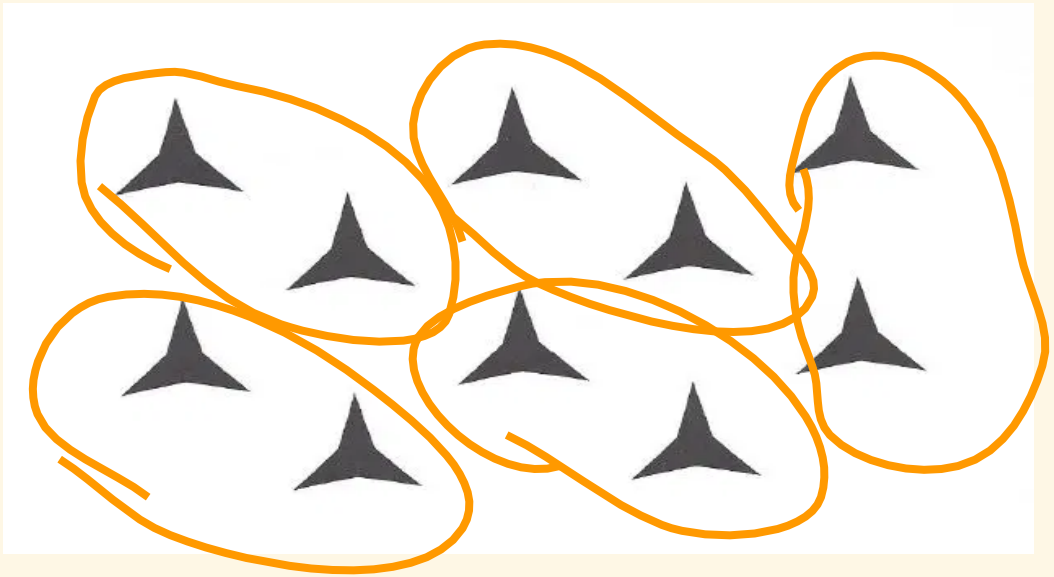


4+4+2=10



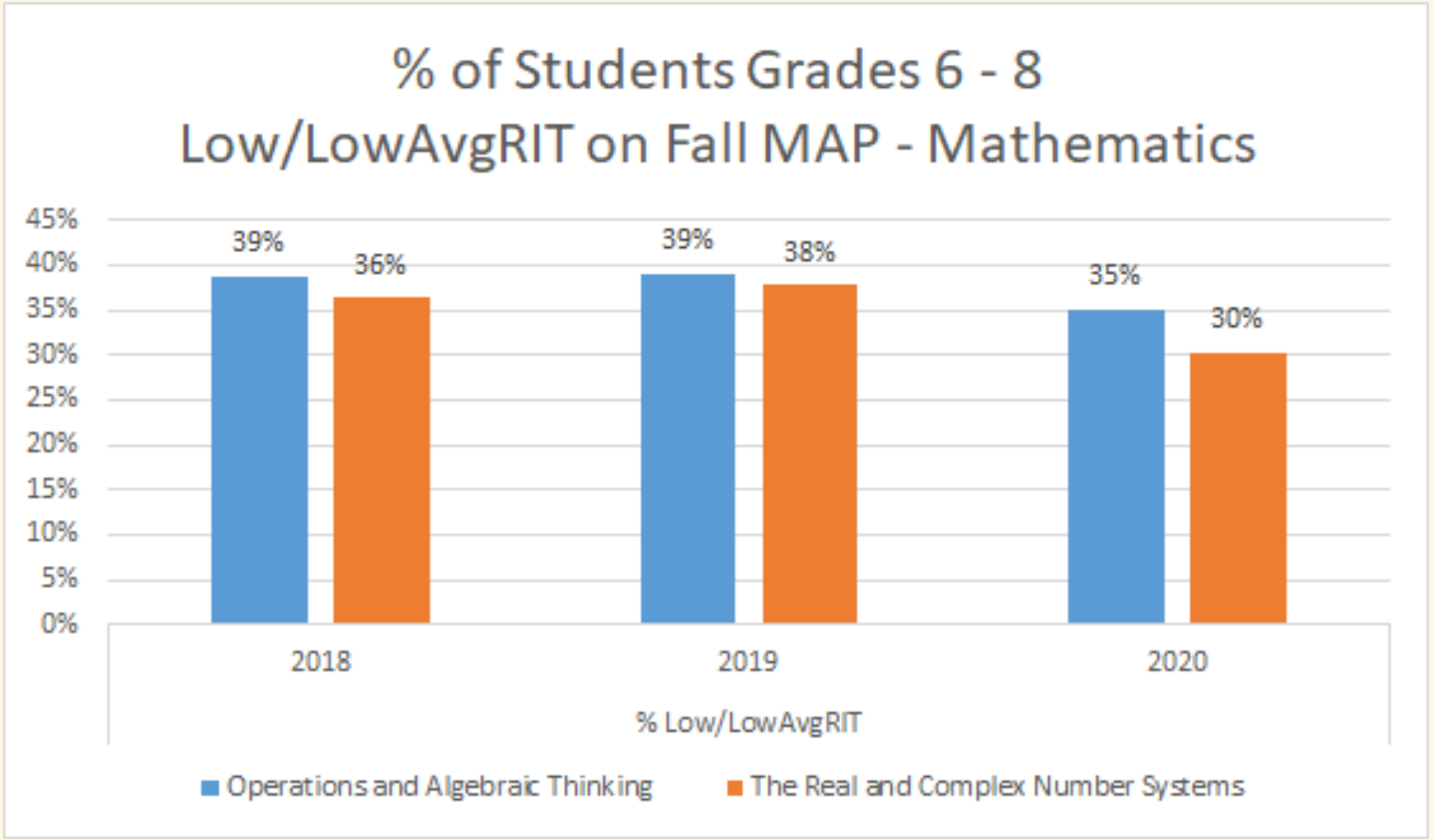
5+5=10

2+2+2+2+2=10,
5 groups of 2 or
5 x 2=10



The Data Story, Chapter 2: Grades 6-8...

The data below show fewer students scoring at the Low/LowAvgRIT on the **Fall, 2020, MAP Test** in ***Operations and Algebraic Thinking*** and ***The Real and Complex Number Systems***.



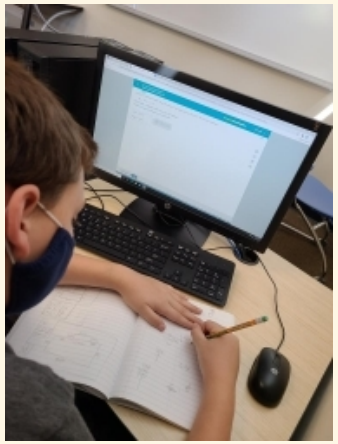
<u>Fall, 2019 to Fall, 2020</u>

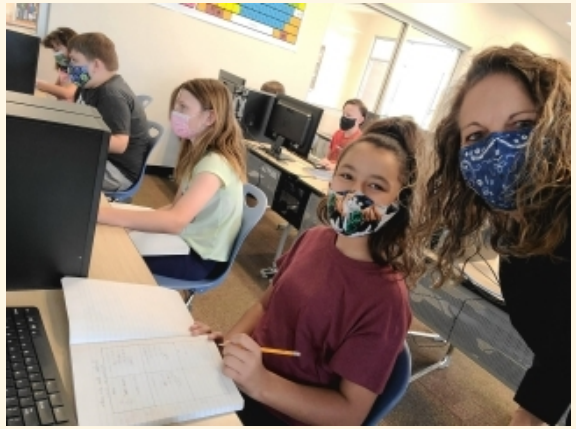
Operations and Algebraic Thinking: **10% decrease (blue)**

The Real and Complex Number systems: **21% decrease (orange)**

ALEKS: Assessment and **Le**arning in **K**nowledge **S**tates

1. Artificially and intelligent learning and assessment system.
2. Initial Knowledge Check: quickly and accurately determines each student's knowledge of the course.
3. ALEKS helps the students work on topics they are READY to LEARN.



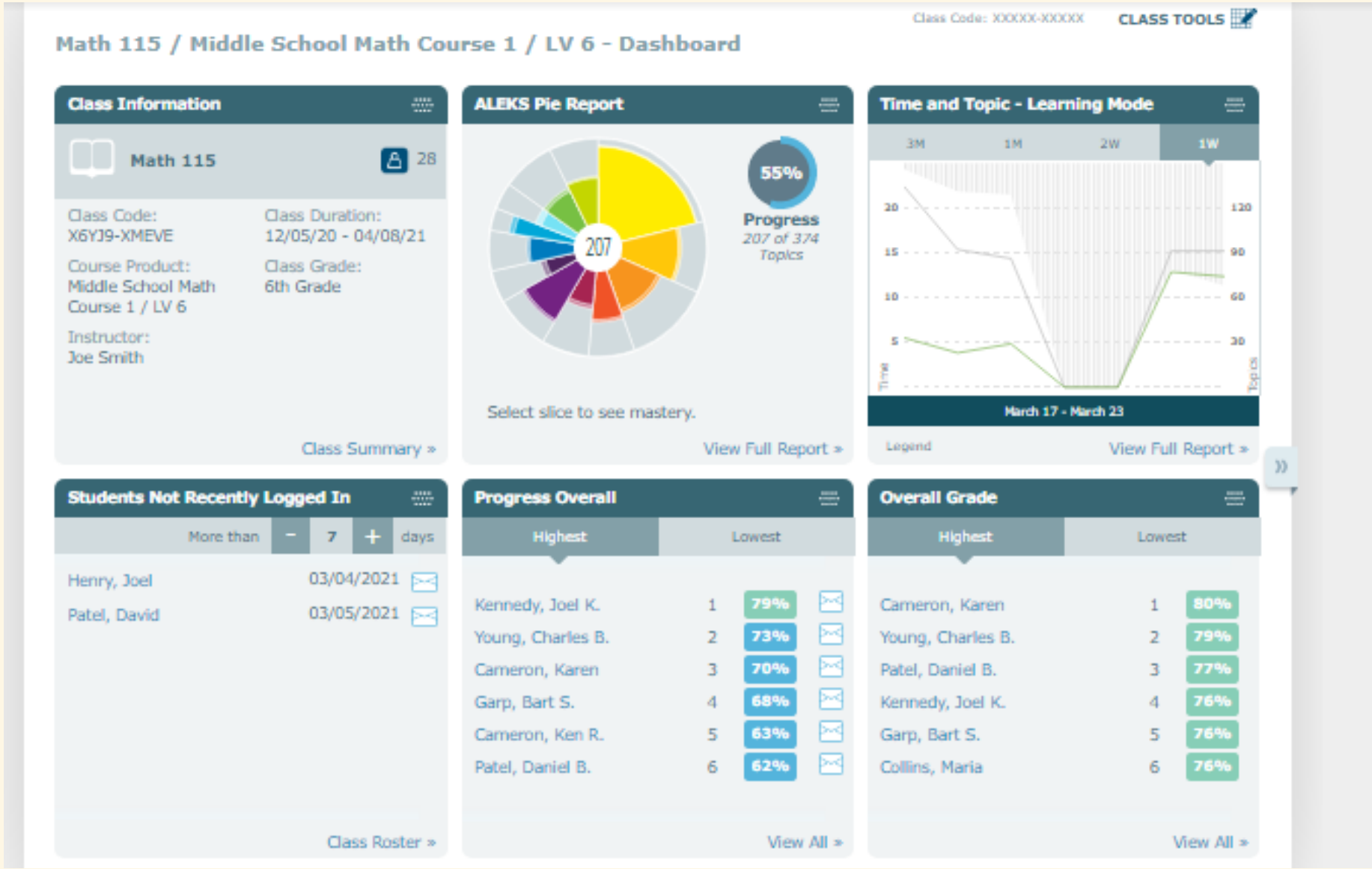


For teachers…

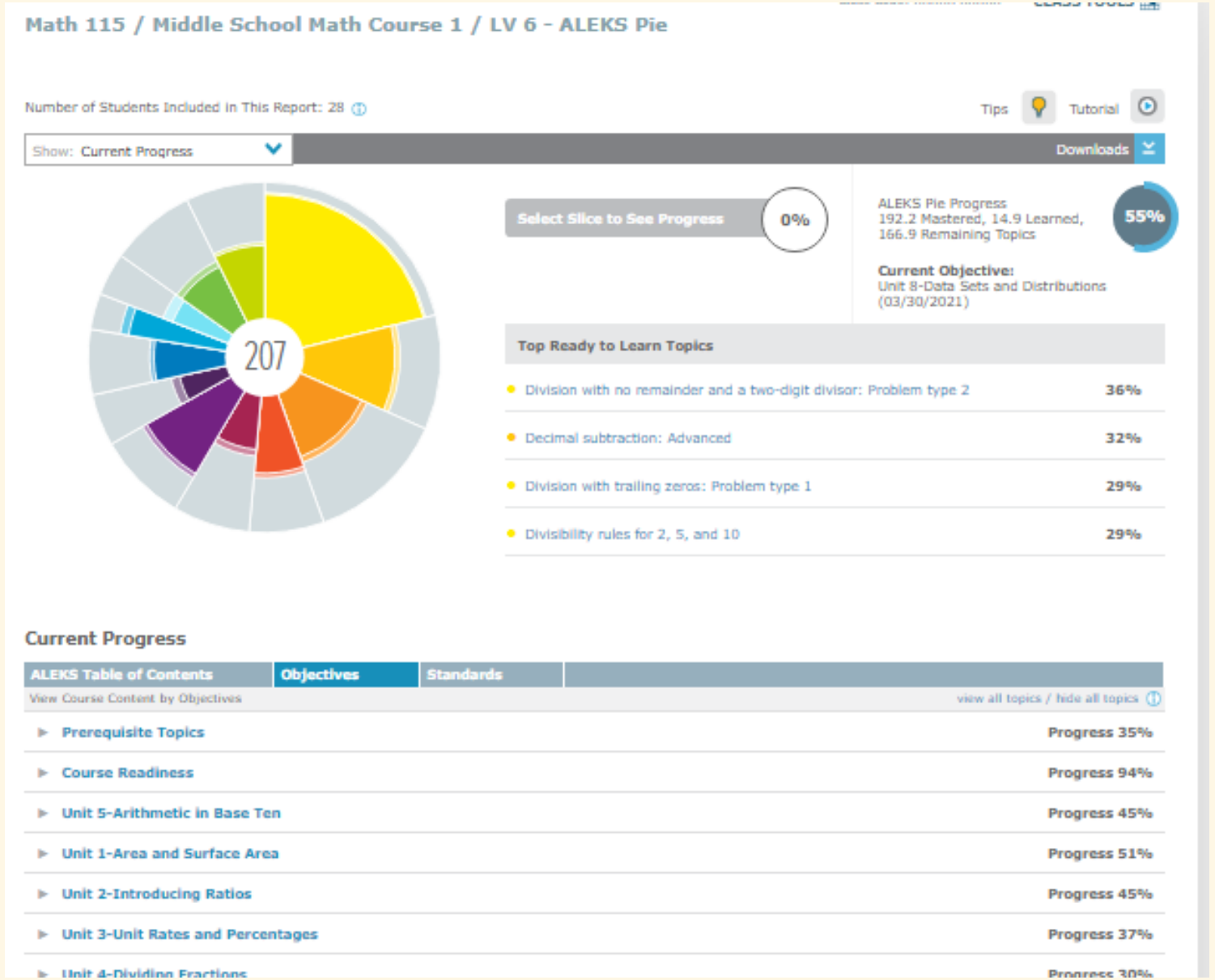
1. Comprehensive data that shows which students need additional support on particular topics.
2. Based on the ALEKS PIE Report, teachers are able to work with students in small groups to support their learning of specific skills, thus personalizing the learning.

Photos are from Nicole Tilicki's class at Innovation Academy

ALEKS Dashboard: Teacher View



ALEKS PIE Report: Teacher View



ALEKS PIE Report: Teacher View

• Distributive property: Fractional coefficients	57%	43%	23%	3%
• Factoring a linear binomial	60%	40%	23%	0%

• Factoring a linear binomial	60%	40%	23%

8 students out of 35 (23%) are **Ready to Learn** this topic. Message Stu

Bourbaki, Victoria L.
Cauchy, Kevin P.
Doe, Kevin A.
Garp, Carlos T.
McArthur, Tracy P.
Simpson, Kelly L.
Summers, Jose L.
Topeka, Victoria

(0) Other topics that these students are **Ready To Learn**

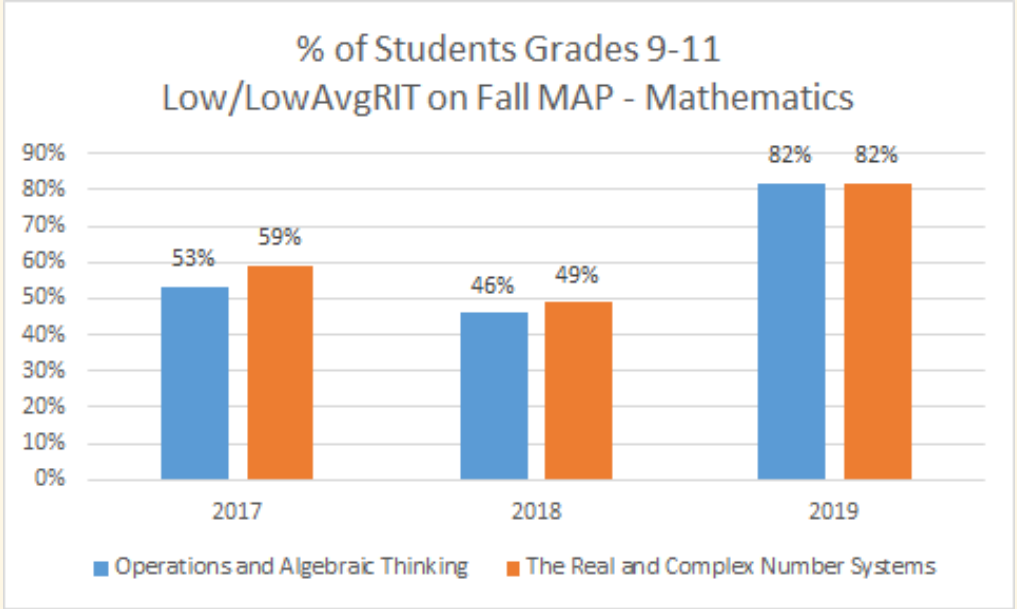
Based on this data, teachers are able to work with individual students or small groups to support their learning as they work to master *Factoring a Linear Binomial.*

AMPHITHEATER Public Schools

The Data Story, Chapter 3: High School...

The data below show an increase in students in the Low/LowAvgRIT on Fall MAP tests, however, we must consider the following:

1. Small sample size each year
2. MAP test is not used consistently as a measure of student progress
3. No 2020 data due to various assessments used for the State's Benchmark Testing.



*But the Data Story **does tell us** that…*

1. We need to develop a consistent measure of academic progress across the district.
2. It's imperative that we have cross-collaboration with high school and middle school teachers to support our students' understanding of mathematics.

Feeder Collaboration Teams

Purpose: To collaborate as a feeder pattern team to best support students in their understanding of the ***Foundational Skills for Algebra Success***. And to…

1. Create formative assessments to measure the Foundational Skills.
2. Reflect on grading practices and develop consistency in grading.
3. Develop effective strategies to personalize learning.

Amphi High Feeder Collaboration Team	Northern Feeder Collaboration Team
Amphitheater High School	Canyon del Oro High School
Amphi Middle School	Ironwood Ridge High School
La Cima Middle School	Coronado K-8
	Cross Middle School
	Wilson K-8

Connections to our Strategic Plan

Amphitheater Public Schools
Strategic Plan

Goal 1, Objective 1:

Students will engage in lessons which… Personalize/individualize their instruction.

Goal 1, Objective 3, Strategy 1:

By 2023, ***all students*** will be proficient or highly proficient in English/Language Arts, Mathematics, and Science as measure by State and/or local assessments.

By 2023 and beyond, ***all students will successfully complete***:

Algebra 1 by the end of grade 9
Geometry by the end of grade 10
Algebra 2 by the end of grade 11

Foundational Skills for Algebra Success

- Fractions: all operations
- Integers (all operations)
- One-step, two-step, & multi-step equations
- Estimation of solution
- Flexibility with variables
- Graphing skills (x, y coordinates, table of values, transferring to a graph)
- Ratio & Proportion (how x relates to y) to build upon for functions
- Equivalence between graphs, tables, and equations

Summer Teacher Institute Plans: Mathematics

Elementary Topics	Middle School Topics	High School Topics
Everyday Math: Developing Student Skills in Number Sense and Operations and Algebraic Thinking	**ALEKS: A Personalized Approach** Teachers attending are able to choose between a beginner level course and a more advanced course. During the second half of training, teachers will come together and collaborate on topics such as blended learning, data analysis and differentiating your classroom.	
Everyday Math: Math Strategies and Game Play, Assessment Building and the Data Dashboard	**SAVVAS enVision:** Personalizing and Differentiating Instruction	**Feeder Pattern Collaboration:** Continue working on building assessments based on the Foundational Skills for Algebra Success, discuss blended and personalized learning, collaborate on best practices for grading.
F**ostering Curiosity and Building Connections in Your Math Classroom:** Literature Discussions, 3-ACT Math Tasks, Importance of Equivalence in Algebraic Thinking, Developing Number Sense Through Choral Counting, Open Middle Math	**Fostering Collaboration in the Middle School Classroom:** 3-ACT Math Tasks, Number Talks, Literature in the Math Classroom, and developing blended learning strategies to enhance your management of curriculum and resources.	**Data Talks, High School**
Data Talks, K-2 and 3-5	**Data Talks, 6-8**	-

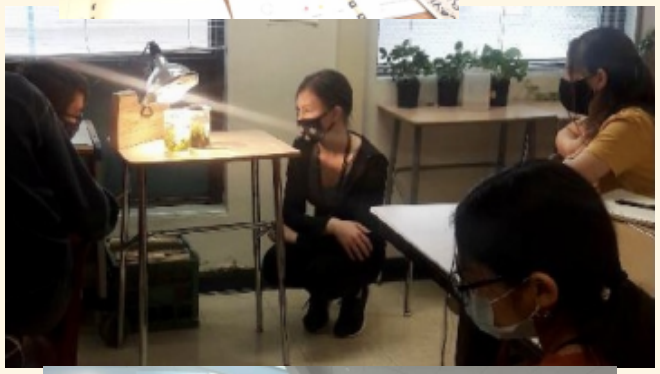
Science/STEM in Amphi Schools

K-5: Supports to increase daily science & STEM: Learn to Love Science

6-8: Continuity, Clarification of Misconceptions, Skills Practice

9-12: Continuity, Depth, College Readiness, Life Skills

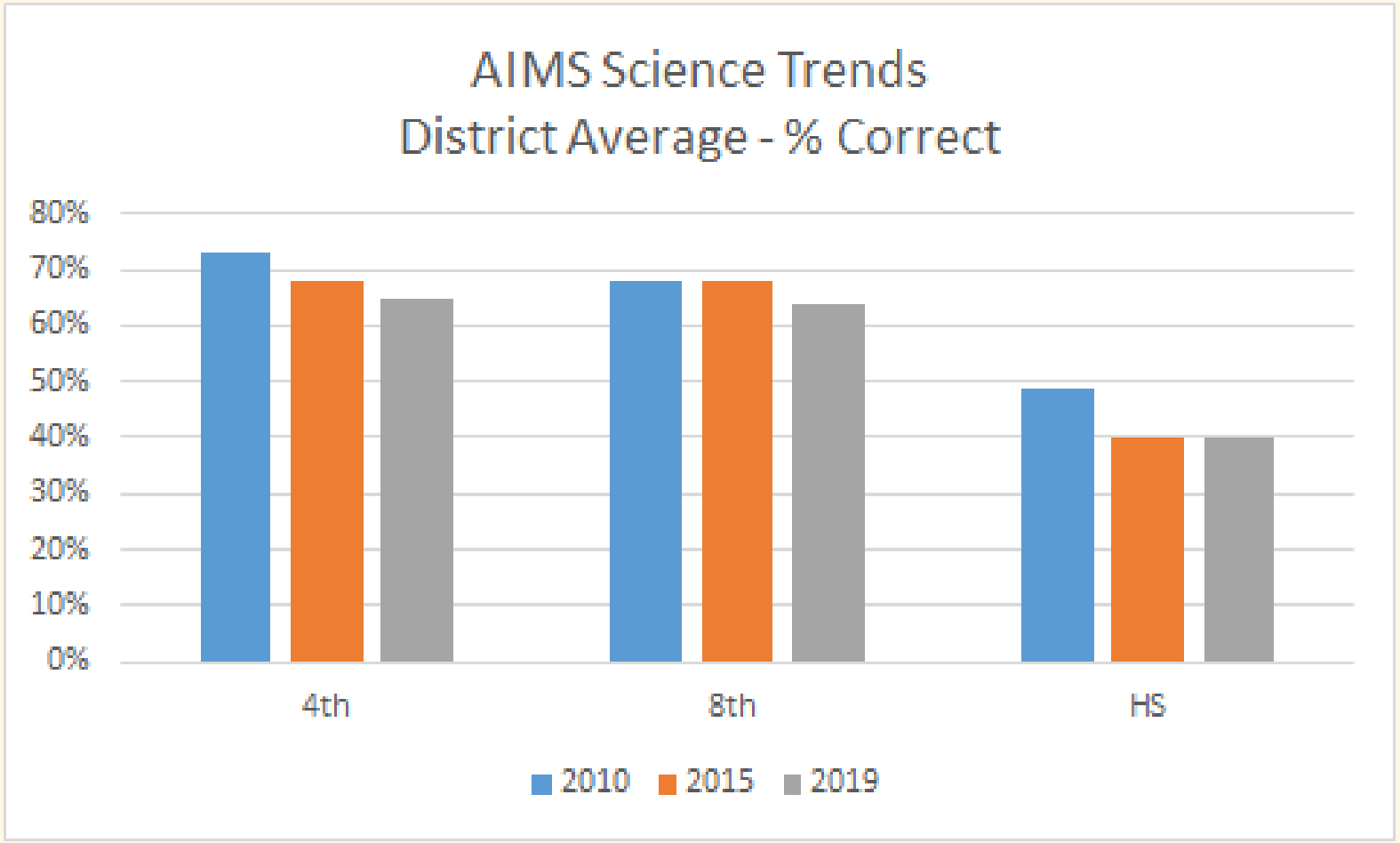
'Bursations' and Redefining Failure



Lightbulb Moments

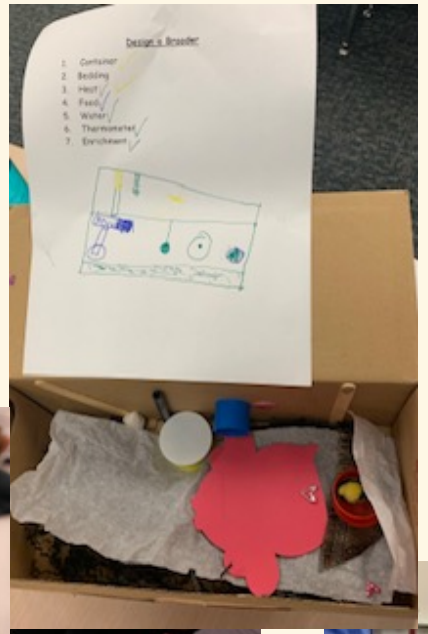
HeLa, CERs and Beyond

Starting Point Challenge



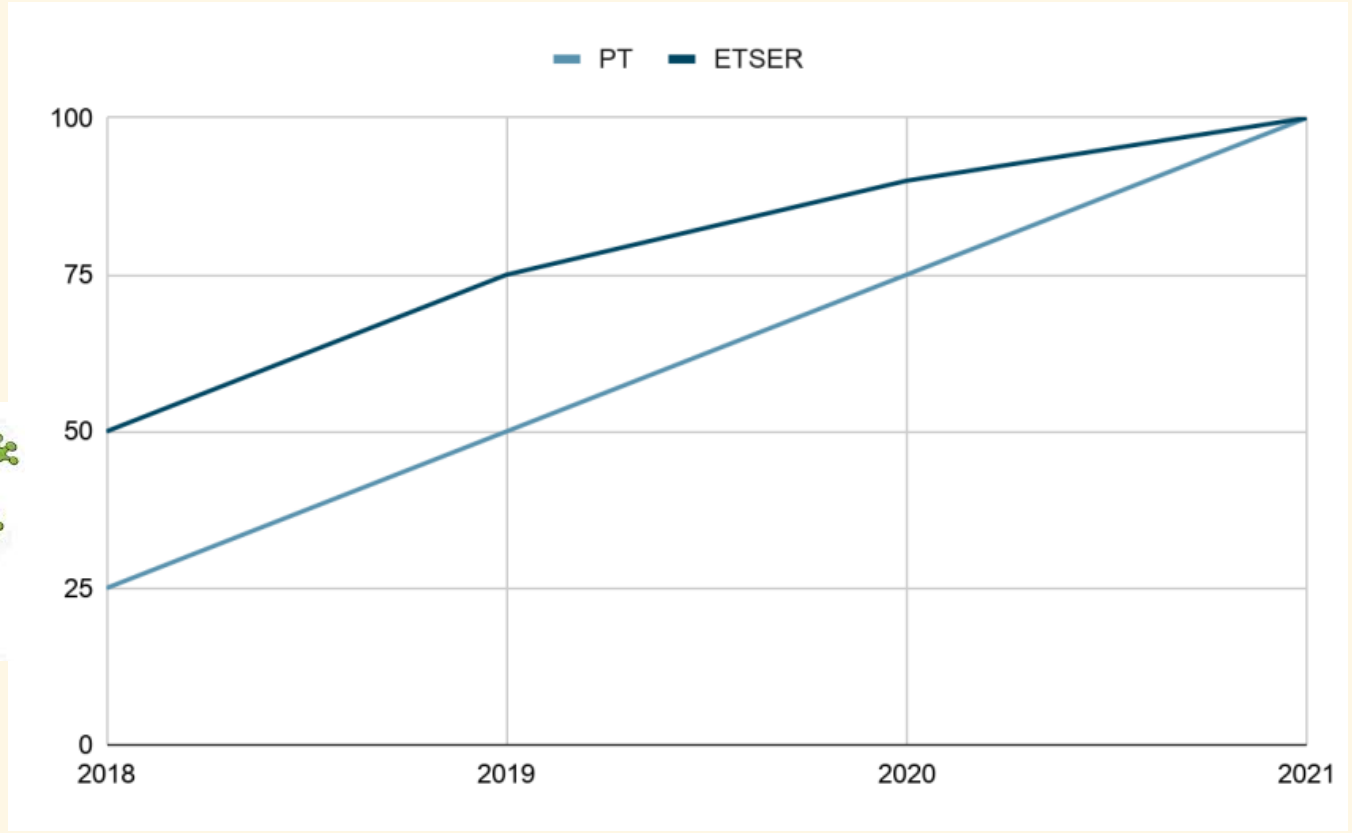
Chickens are cannibals unless they see purple

- Science Guide to 3 supported interdisciplinary programs
- Special projects
- CERs in 3-5
- *Are we seeing desired results?*



‘Data’

ETSER vs. PT



Phenomenon is more than a muppets' song

Statement: ***There are reptile fossils in Antarctica*** (7U3LS3)

Question: ***How old is the Grand Canyon?*** (8U1LS1)

Picture + Identification: ***Star Trails*** (6U2LS1)

Picture without Identification:

Snapshot: MS Curriculum Guide

Gr.	Unit 1	Unit 2	Unit 3	Unit 4
6	Physical (Chemistry)	Earth & Space	Life Science	Energy
7	Physical (Motions & Forces)	Life Science	Earth & Space	Review & SL Projects
8	Earth & Space	Physical (Physics)	Life Science	HS Bio Prep

Hands-On Experiments	Hands-On Activities	Reading Passages	CERs
40+	60+	75+	30+

- Tools 1-5 for Each Unit:

Tool 1 = Unit Blueprint
Tool 2 = EoLs + Standards Alignment
Tool 3 = Outline with References
Tool 4= Teacher-Student Lesson Plans
Tool 5 = Performance Assessments

- Each Unit has 1-3 Learning Sequences
- Each Learning Sequence has 5+ lessons that follow the 5E format:

Engage (hook them with the phenomena)
Explore (Inquiry)
Explain (Students discover truths, vocab)
Elaborate (Where else might this apply?)
Evaluate (Do students demonstrate understanding of the concept?)

Lauren Marlatt, CK8

Kyle Sutton, Wk8

Leslie Ferre, LC

Pam Vandivort

Performance Assessments

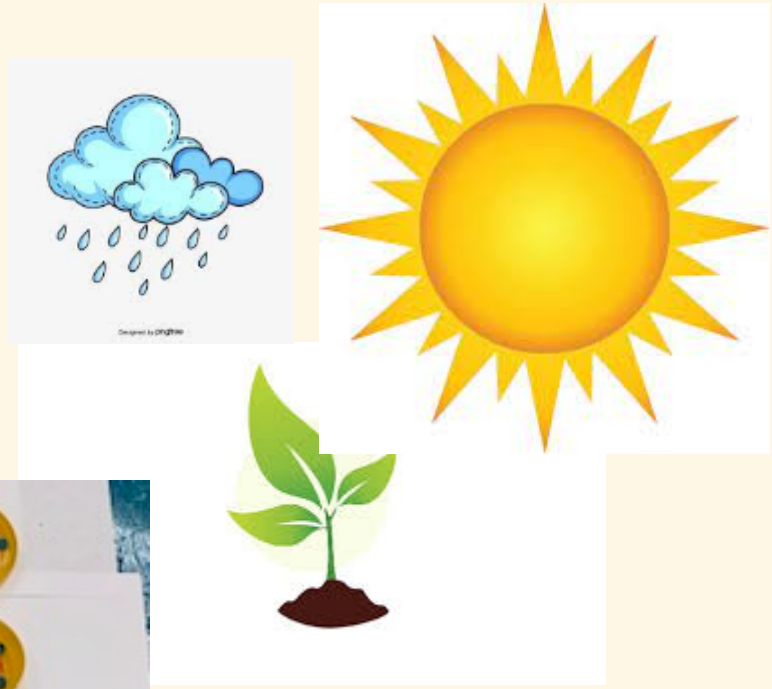
- Written specifically for each Unit
- District-Wide Data
- Aligns to AZSci

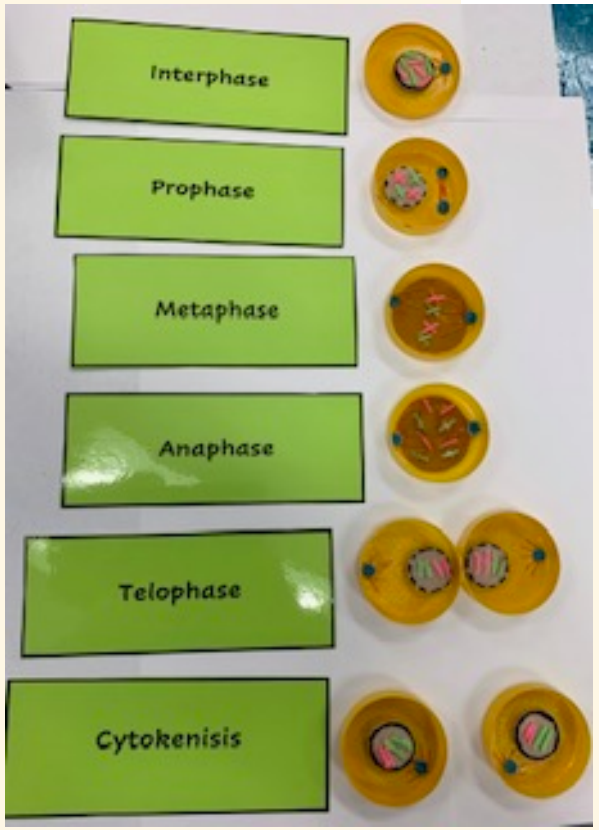
Clarification Snapshot: How do plants grow?

- What our approach looks like (how we obtain mastery with empty cd cases, paper towels, dog hairs, Dollar Store stuffs, etc.)

  7th Grade Life Science Unit

- Preliminary, limited, results data
- Plan for 2021-22





AZ State Standard

7.L1U1.8: ***Obtain, evaluate and communicate information to provide evidence that all living things are made of cells, cells come from existing cells, and cells are the basic structural and functional unit of all living things.***

Teacher Text-timonies

Mon, Mar 8, 9:57 AM

Been a long time since I had this much focus in observation. It is working great.

Fri, Dec 11, 8:25 AM

Thought you would want to see your models in action. The kids keep telling me these are so cool.

Fri, Feb 19, 2:05 PM

The kids LOVED the autopsy report activity to end life science. They were so happy. They were debating and actually talking. It was great.

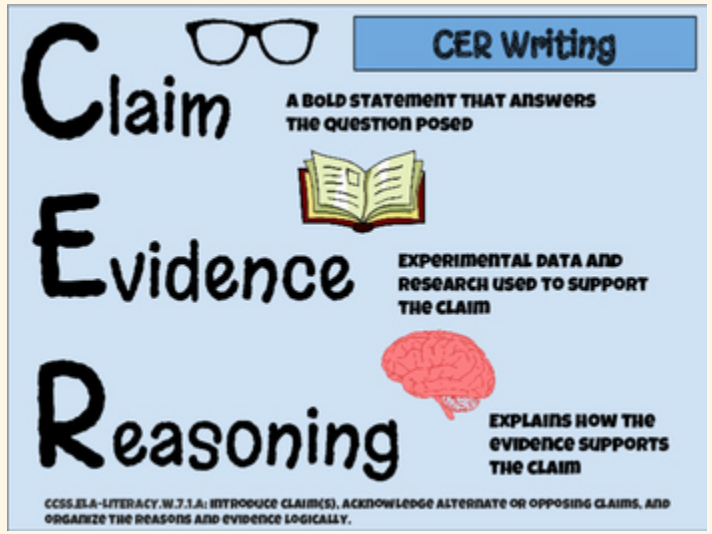
How are we doing so far?

Grade	Life Science 2019 % Correct District Average	2021 ⅗ of MS PA % Mastered Life Science LS 1 ,2,3 Averaged
4th	62.4	
8th	64.8	(7th) 78%
HS	49.1	

High School

Focus on

- *Course Prerequisite Continuity*
- **Course Content Continuity**
- *Content Merging for AZSci Alignment*
- **Suitable Online Lab Experiment Simulation Platforms**
- *Deeper Content Mastery, Practice*
- **College Prep**
- *Life Applications*



STEM Summer Institute Classes 2021

K-5	6-8	HS
PPS-How To	6 Units Training	Data Talks 9-12
EiE- How To 1-5; K	7th Units Training	
PLTS-L How To	8th Units Training	
PPS-K; 1;2;3;4;5	6-8 Science Adaptations for SpEd	
Data Talks K-2; 3-5	Data Talks 6-8	

18 Workshops Total

Connections to our *Strategic Plan*

Goal 1, Objective 1, Strategy 3:
Focus on instructional practices which do not inhibit students' critical thinking, problem solving, creativity and therefore promote retention and application of learning.

Goal 1, Objective 4, Strategy 2: ***Prepare curriculum guides in all subject areas which clearly outlines expectations and provides flexibility for teacher creativity.***

Goal 1, Objective 5, Strategy 1: ***Develop well-articulated STEM/STEAM curriculum which is interdisciplinary in design and requires students to use creativity, critical thinking and problem solving.***

Handouts

- Amphi Science/STEM Coordinator Flow Chart
- Sample of Kindergarten writing (Prince Elementary; Ants Project; Journal page- October, 2018)
- Copy of Amphi Elementary Science Guide (2019 compilation)
- Copy of 1 MS Learning Sequence (Tools 1-4; 7U3LS3)
- Copies of MS Students' Performance Assessments (2020-21; first year of new curriculum guide)
- Copy of HS Students' CERS (IRHS, AHS, 2021)

Language Arts Around the District

Tonight's focus will be on…

1. Our New Curriculum, Houghton Mifflin Harcourt

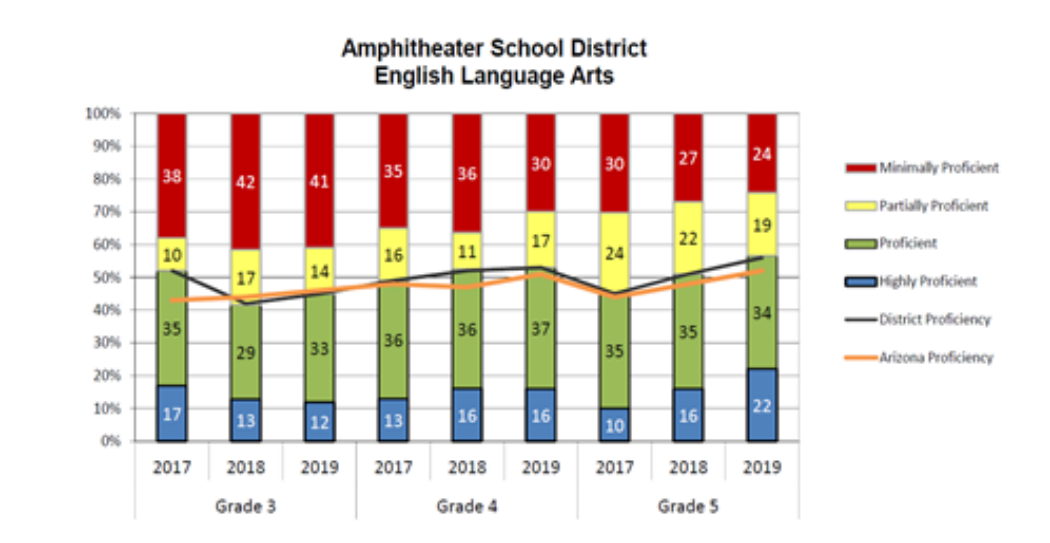
1. Professional development

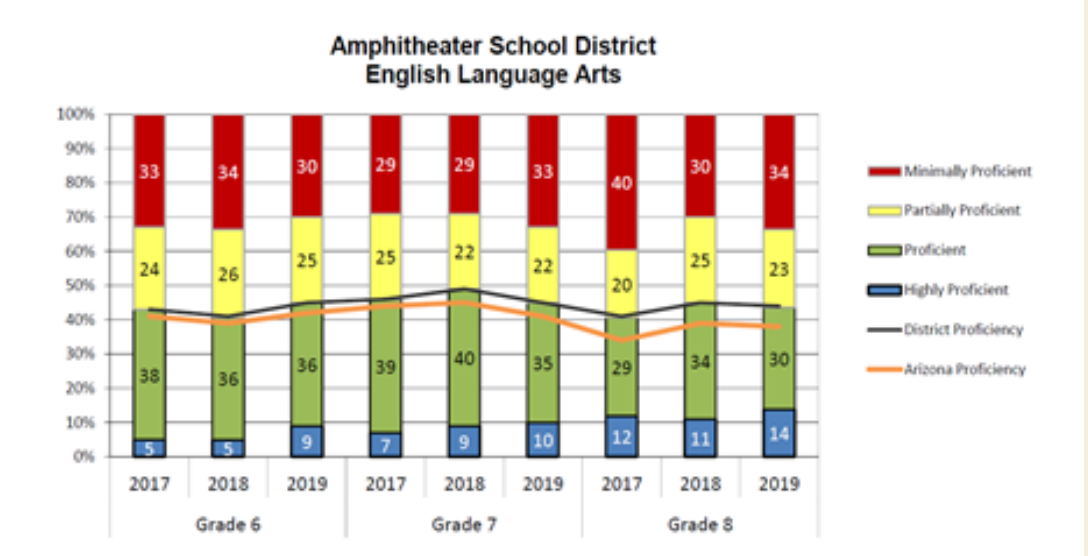
1. Curricular collaboration

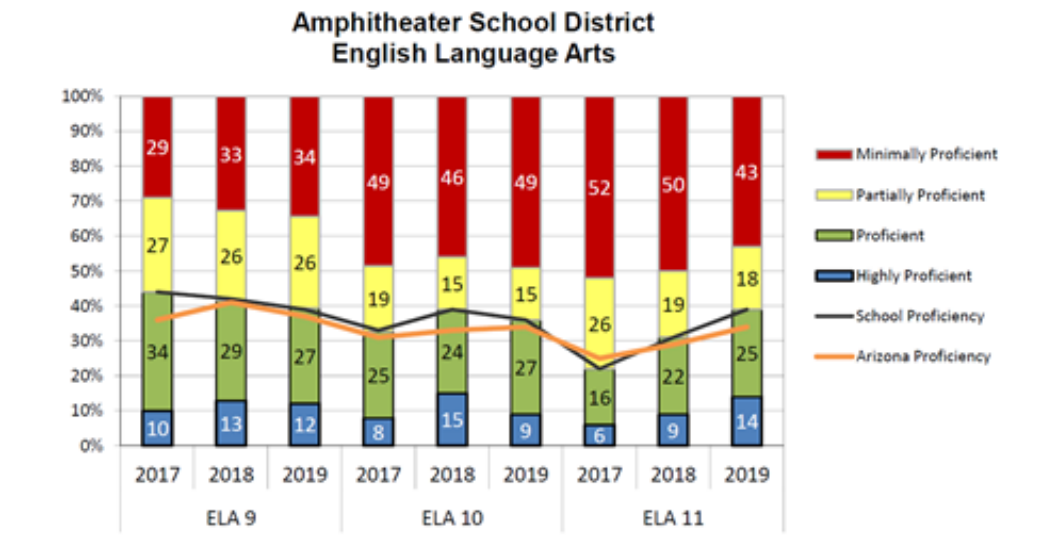
1. Support services and staying ahead of the game

AMPHITHEATER
Public Schools

Let’s talk about data:



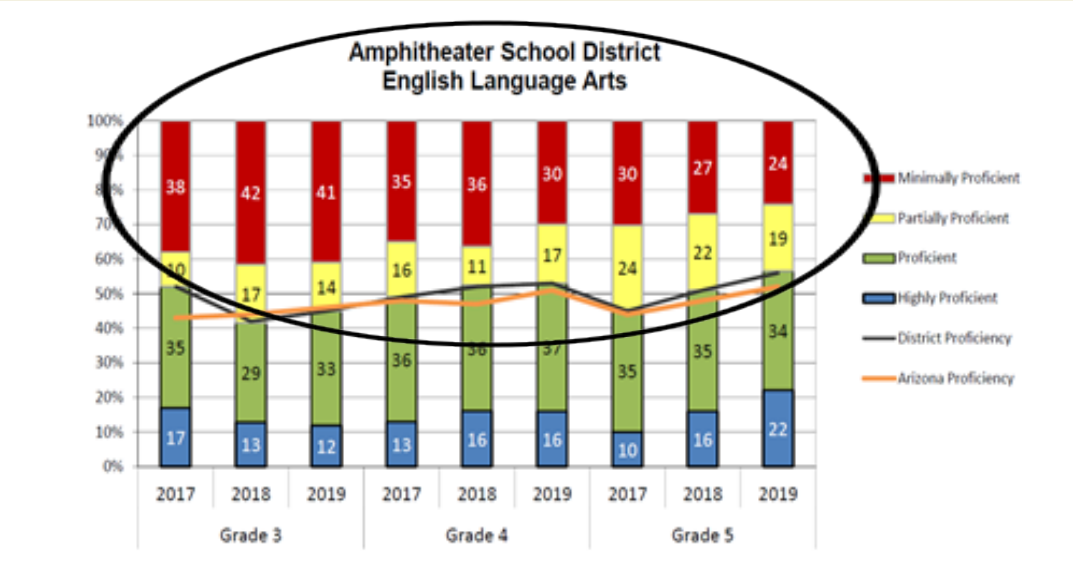


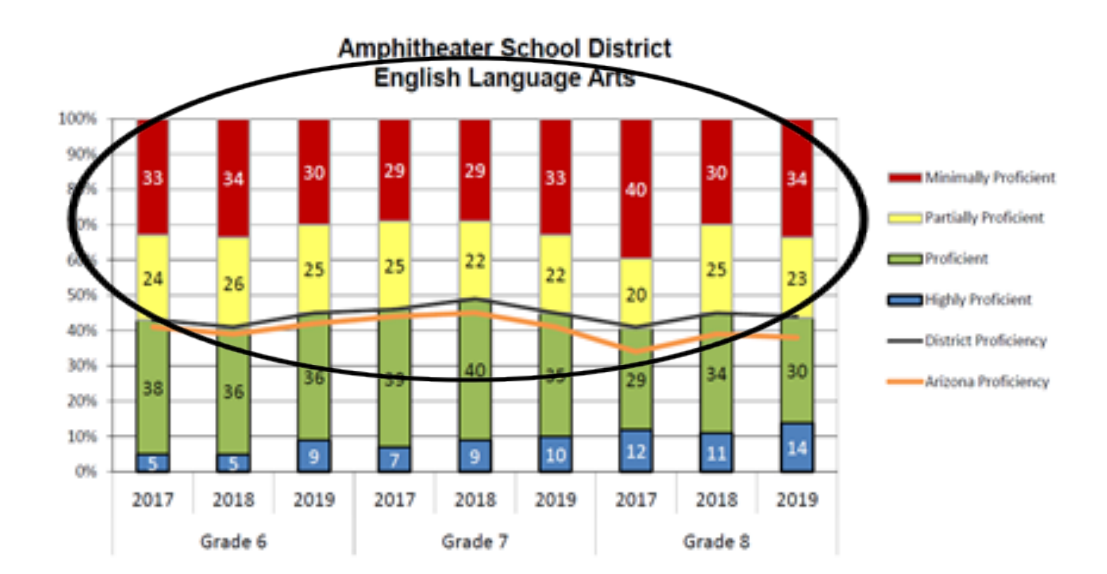


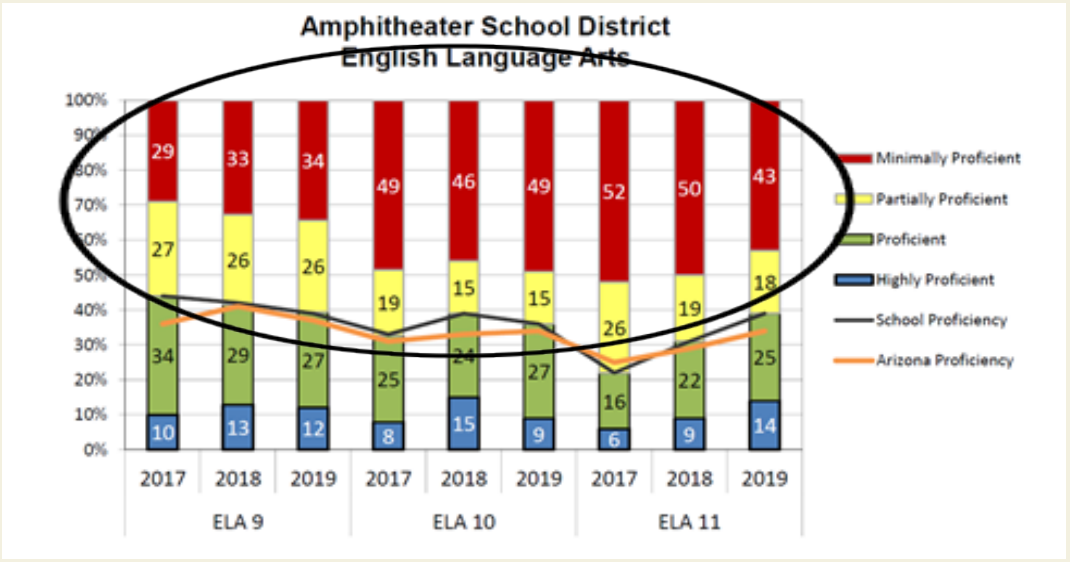
Historical data shows that Amphitheater Public Schools was performing above the state average before the pandemic.

AMPHITHEATER
Public Schools

Let’s talk about data:







...But we still have work to do.

AMPHITHEATER
Public Schools

Identifying Needs and Challenges:

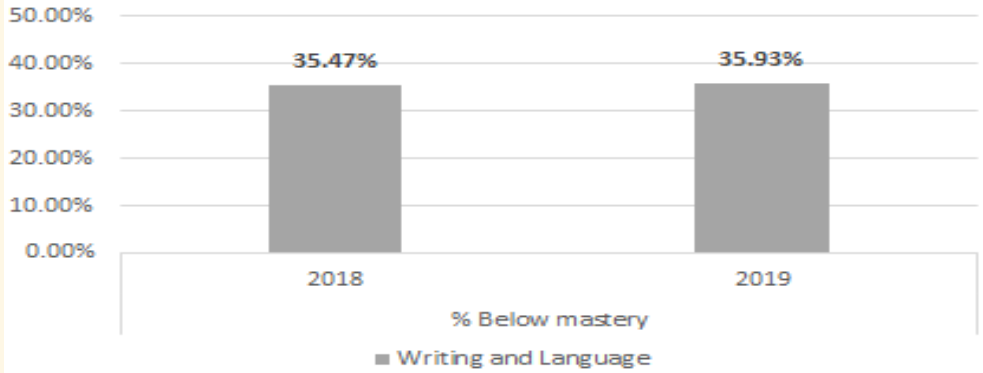
1. Data analysis

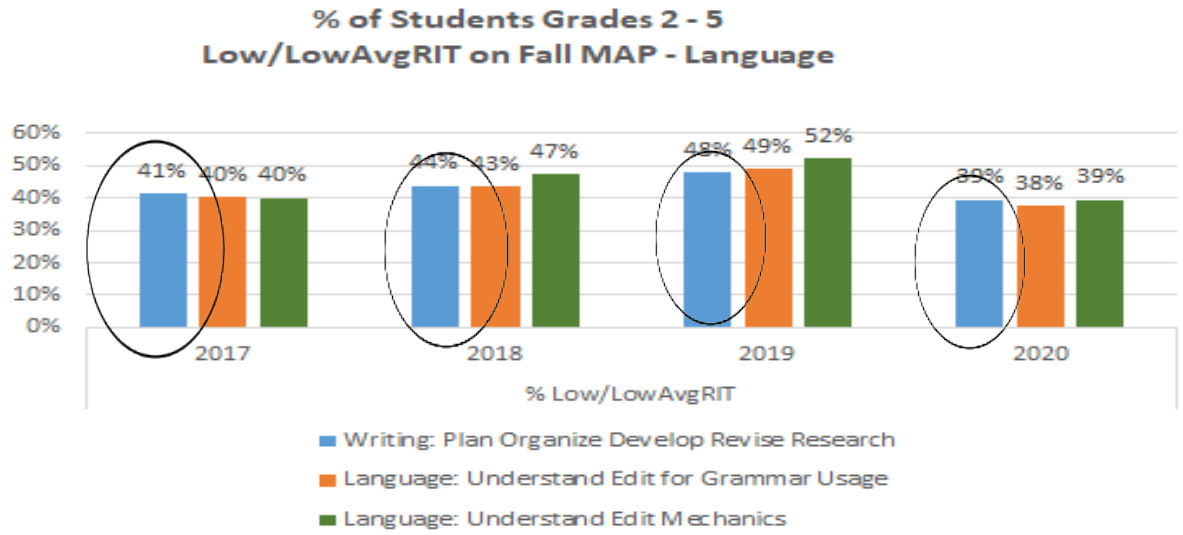
1. One to one visits (October/November)

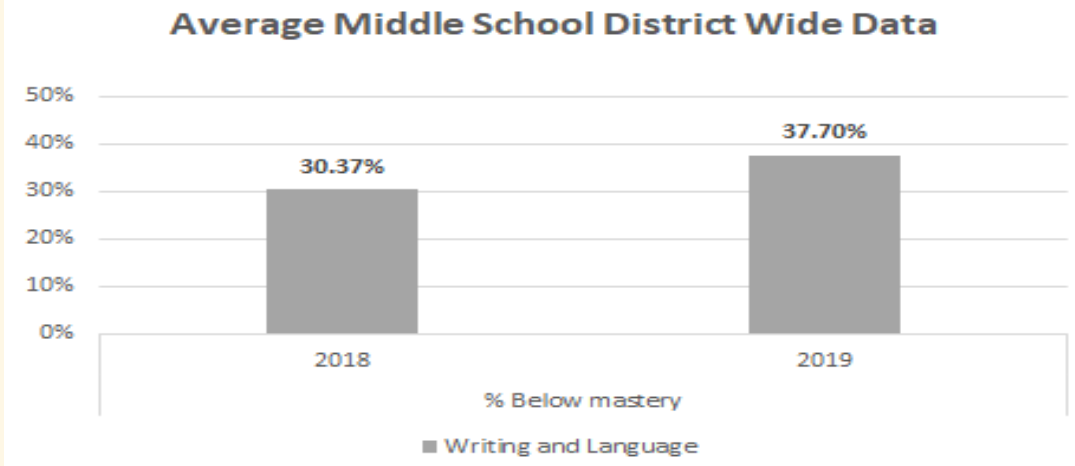
1. Open curricular meetings (K-2, 3-5, 6-8, 9-12) (December)

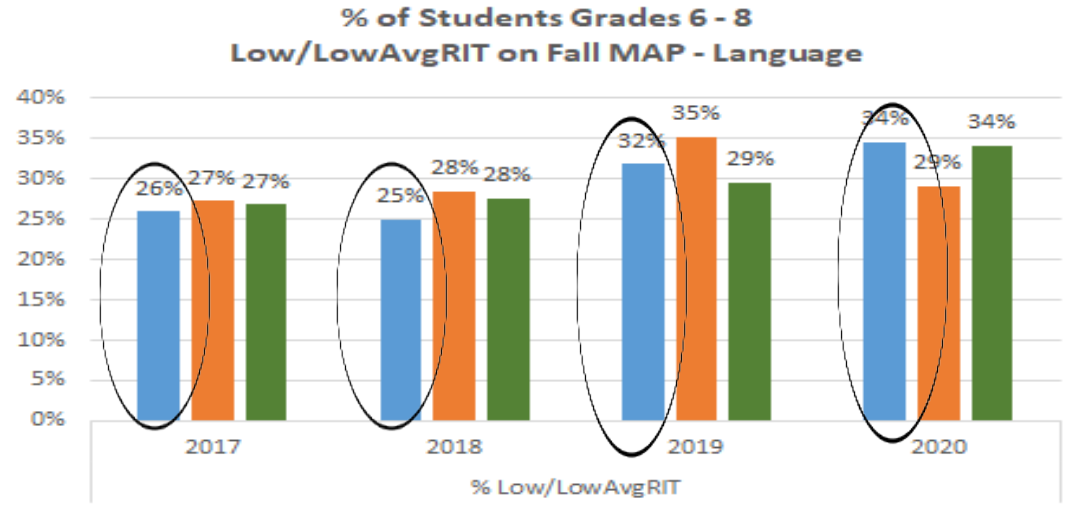
1. Piecing it all together (January-May)

Writing: Az Merit vs Fall MAP

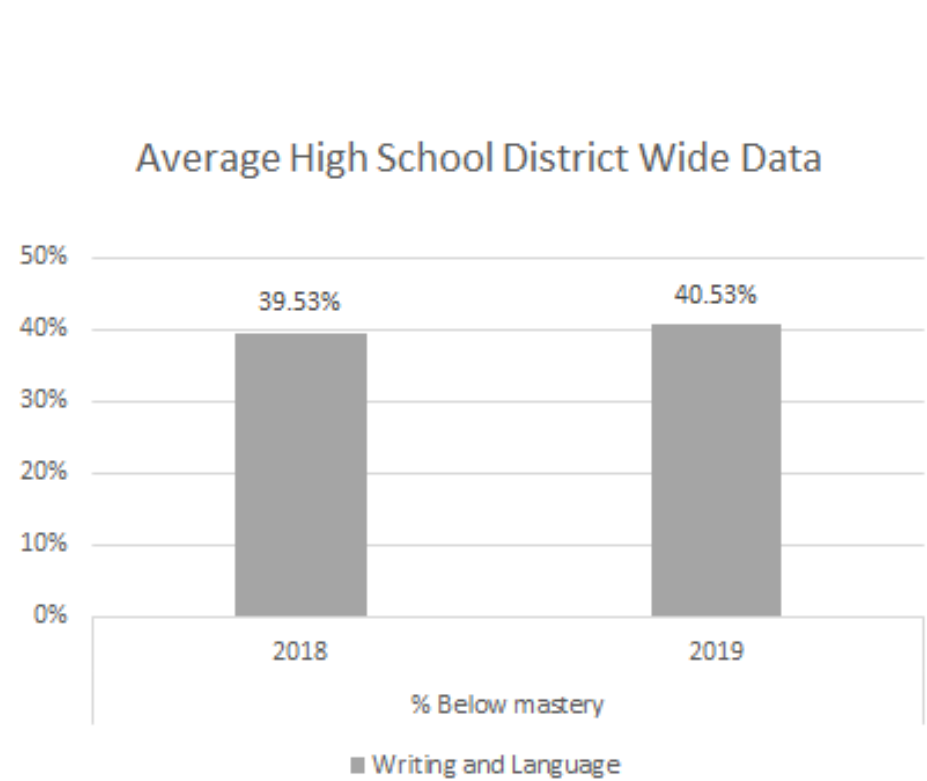


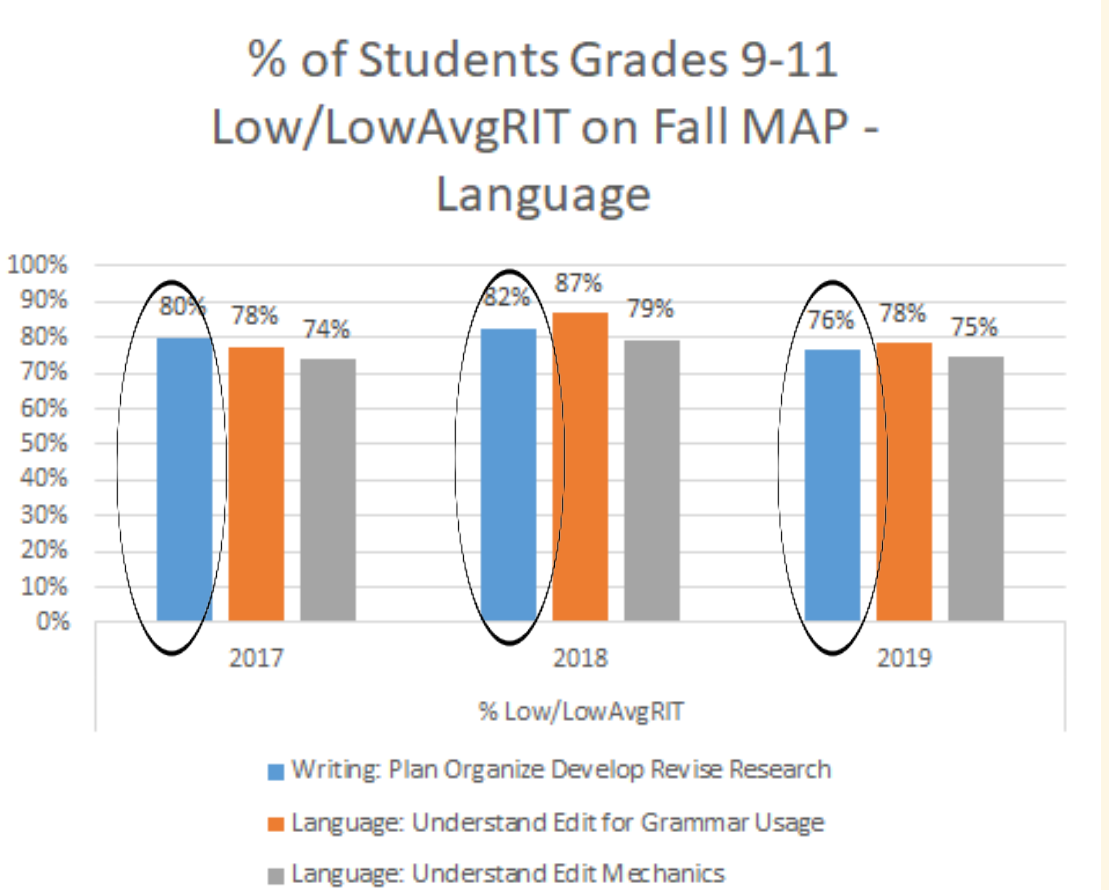






Writing: Az Merit vs Fall MAP





Why?

When surveying Principals, Department Chairs, and Classroom teachers:

a. Knowledgeable teachers, but methods of teaching vary from one class to another, and one school to the other.

a. We *assume* all students have developed most writing skills by the time they reach high school. This is not the case.

Therefore:

We need a consistent, systematic, District-wide approach to teaching Writing.

What's the plan?

On the short term:

A semester-long, District-Wide, in-depth series of Writing Professional Development, provided by Mr. Steve Peha, a renown specialist in the art of writing (currently ongoing).

- Offered on Tuesdays and Wednesdays
- In Grade-level bands K-2 , 3-5, 6-12

On the long term:

A systematic approach to teaching writing across the curriculum.

The Adoption Process

1. We held grade-level optional virtual curricular meetings to compare data with teachers' perspectives.

1. Based on teacher recommendations as well as data, we created the list of requirements in our request for proposals (R.F.P.)

1. From January 28th-February 2nd A Committee of 70 K-12 ELA teachers met physically analyzed curriculum from all vendors

1. Based on scores, we selected the top three vendors per category (elementary, middle school, and high school)

1. Additional virtual meetings per category (K-5, 6-8, 9-12) were held.

The Results

A unified, cohesive, **single** K-12 ELA curriculum

(first time in Amphitheater Public Schools history!)

How?

Through a strong, open and transparent process of collaboration

This collaborative process is still ongoing and producing results

Collaboration, not Co*blah*boration!

Curricular meetings per grade level (6-12) have been held throughout the months of March and April and May.

a. We analyzed research about ELA Instruction and its alignment to state standards.

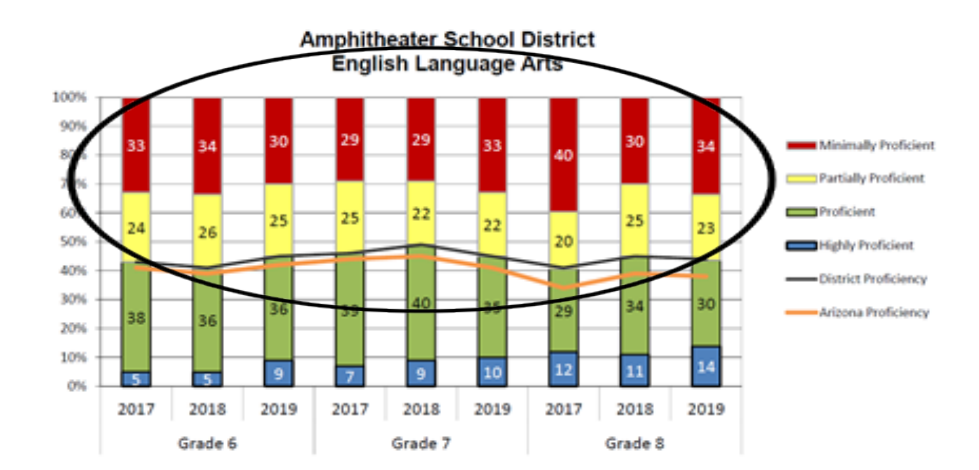
a. Reflected on teaching practices at the secondary level for alignment to standards and equity.

a. In-depth analysis of the ELA Portrait of a Graduate (what should it look like in ELA?)

a. Analyzed additional resources per grade level to avoid “curricular overlapping”

Elementary is next!

What we know now...



* Effective teachers, but inconsistent interpretation of the AZCCRS .

* Experts on the research and use of resources, but not on their alignment to the State Standards.

Getting a new curriculum is only the first step!

Consistent, District-wide, grade-level based, in-house professional development, centered around alignment of standards, curriculum, assessment, and interventions is needed

Collaboration and Systems of Support

Dyslexia Action Committee

- A team 15 staff members with extensive experience in literacy systems of support, and willing to do research (network, legal, or scientific) in the following areas:
  * Best Teaching Practices
  * Curriculum and Assessment
  * Staff and community awareness

Our Goal

-To support our District in its efforts to enable students who display characteristics of dyslexia to be self-advocates, academically successful, and college and career ready.

How

- Making recommendations to the District, based on research on areas of need.

Amphitheater Public Schools is ready to implement new State Requirements a year ahead

Collaboration and Systems of Support

Consistency when providing interventions and support:

Wilson Language

- Based in Orton-Gillingham methods and the New Science of Reading.
- Used in Tiers 2 and 3.

i-Ready

- An interactive online learning environment designed to assess students and provide individualized instruction based on each one's unique needs.

Reading Apprenticeship (6-12)

- Secondary teachers of content **other than Language Arts** learn how to develop students' comprehension skills while also building subject-area knowledge, reader identity, collaboration, and persistence

AMPHITHEATER
Public Schools

Connections to our *Strategic Plan*

Goal 1, Objective 3, Strategy 1:
Develop and enhance quality academic and instructional programs to improve student performance and close achievement gaps among all sub-groups.

Goal 1, Objective 4, Strategy 1:
Develop well-articulated reading/writing/speaking (ELA) curriculum which ensures students communicate effectively.

Goal 2, Objective 2:
By 2021, develop and implement a district-wide professional development plan aligned with the needs identified through analysis of student achievement and teacher proficiency data.

The three Academic Coordinators fondly known as…

The 3 Amigas!

Working together to support Amphitheater's teachers and students to realize the Portrait of a Graduate!

Amphitheater Public Schools
PORTRAIT OF A GRADUATE