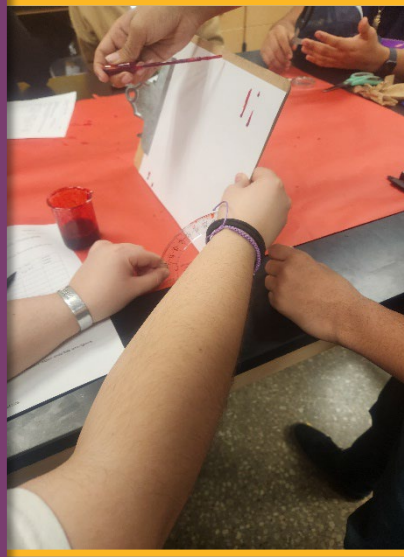
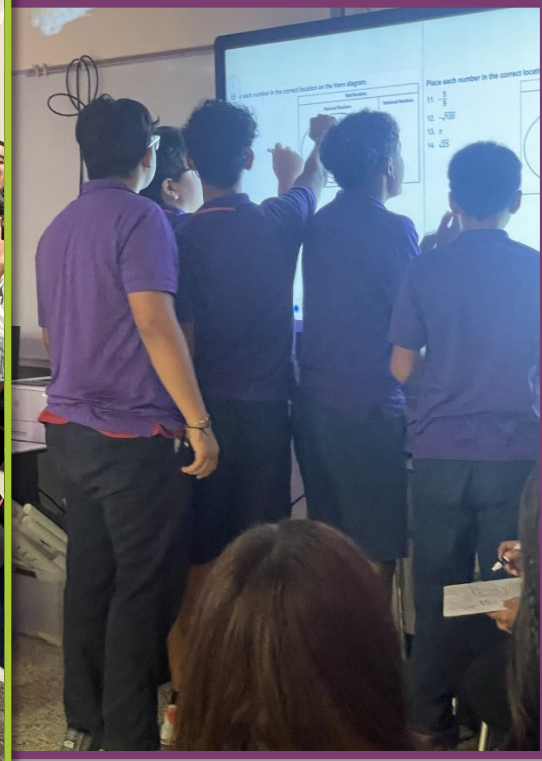
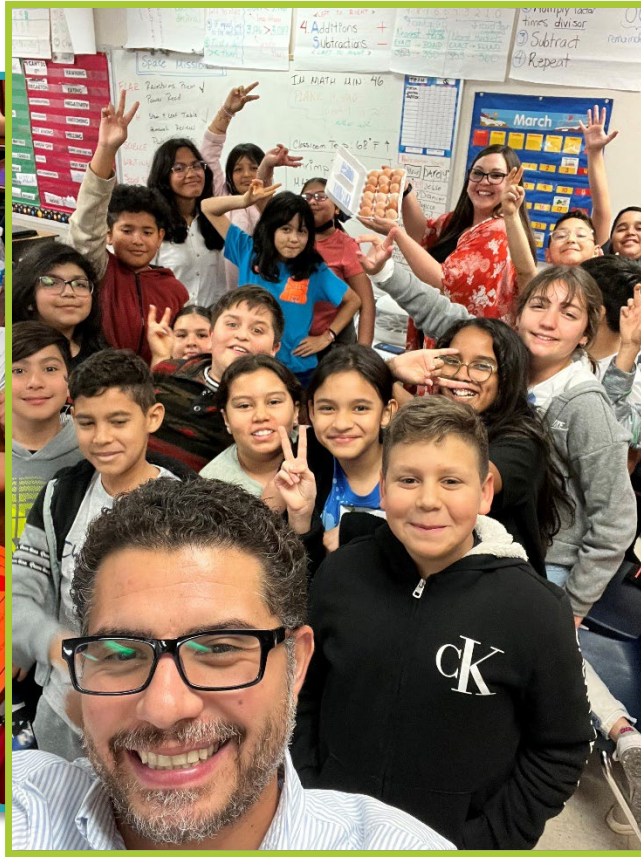


# STEM Board Presentation

Curriculum and Instruction – October 2023





# **Meet the STEM Team**

**Dr. Lilia Nanez – Associate Superintendent**

**Lisa Wills – Executive Director of Curriculum & Instruction**

**Ashley Sellers – Elementary Math Coordinator**

**Melissa Cooper – Secondary Math Coordinator**

**Caitlin Couch – District Science Coordinator**

Attention To Details

~~Student Success~~

Intention With Strategic Planning

Teacher Success

Tension Stress of Finding Materials & Resources

=

Retention

100%





K-2nd Grade	Mathematics Schedule Breakdown:	Tools for Planning Instruction	Approved Instructional Resources: Whole Group	Approved Instructional Resources: Small Group
Math Minutes: 100	<p><a href="#">K-5 Elementary Mathematics Framework</a> <a href="#">K-2 Exemplary Mathematics Framework</a></p> <p><u>Scheduled daily minutes</u></p> <ul style="list-style-type: none"> <li>❖ Do now 10 min</li> <li>❖ Number Talks 10 min</li> <li>❖ Whole group instruction 35 min</li> <li>❖ Small group instruction 45 min</li> </ul>	<p><b><u>Scheduled daily Mathematics minutes</u></b></p> <ul style="list-style-type: none"> <li>❖ Do now 10 min</li> <li>❖ Number Talks 10 min</li> <li>❖ Whole group instruction 35 min</li> <li>❖ Small group instruction 45 min</li> </ul> <ul style="list-style-type: none"> <li>• <a href="#">Virtual Manipulatives</a></li> </ul>	<p><a href="#">Do the Math</a> <a href="#">Do the Math tutorial</a></p> <p><a href="#">Do the Math Signal</a> <a href="#">Do the Math Signal</a></p> <p><a href="#">Number Talks</a></p> <p><a href="#">Source page</a> <a href="#">Link down</a></p> <p><a href="#">Number Talk</a> <a href="#">Number Talk</a></p> <p>(See resource</p> <p>Alignment Documents)</p> <ul style="list-style-type: none"> <li>• Visual Learning Videos</li> <li>• Review what you know-reinforcing the</li> </ul>	<p>SAVVAS (Pearson)</p> <ul style="list-style-type: none"> <li>• (Differentiation) Reteach to Build Understanding</li> <li>• Math Diagnosis and Intervention System 2.0</li> </ul> <p><a href="#">Do the Math Acceleration</a></p> <p><a href="#">Utilizing Do the Math/Set up groups</a></p> <p>What to do with the students who are not being pulled back in small groups:</p> <p>Pre-k-2nd grade: Age of Learning- 45-60 minutes per week</p> <p><a href="#">District approved workstations</a></p>

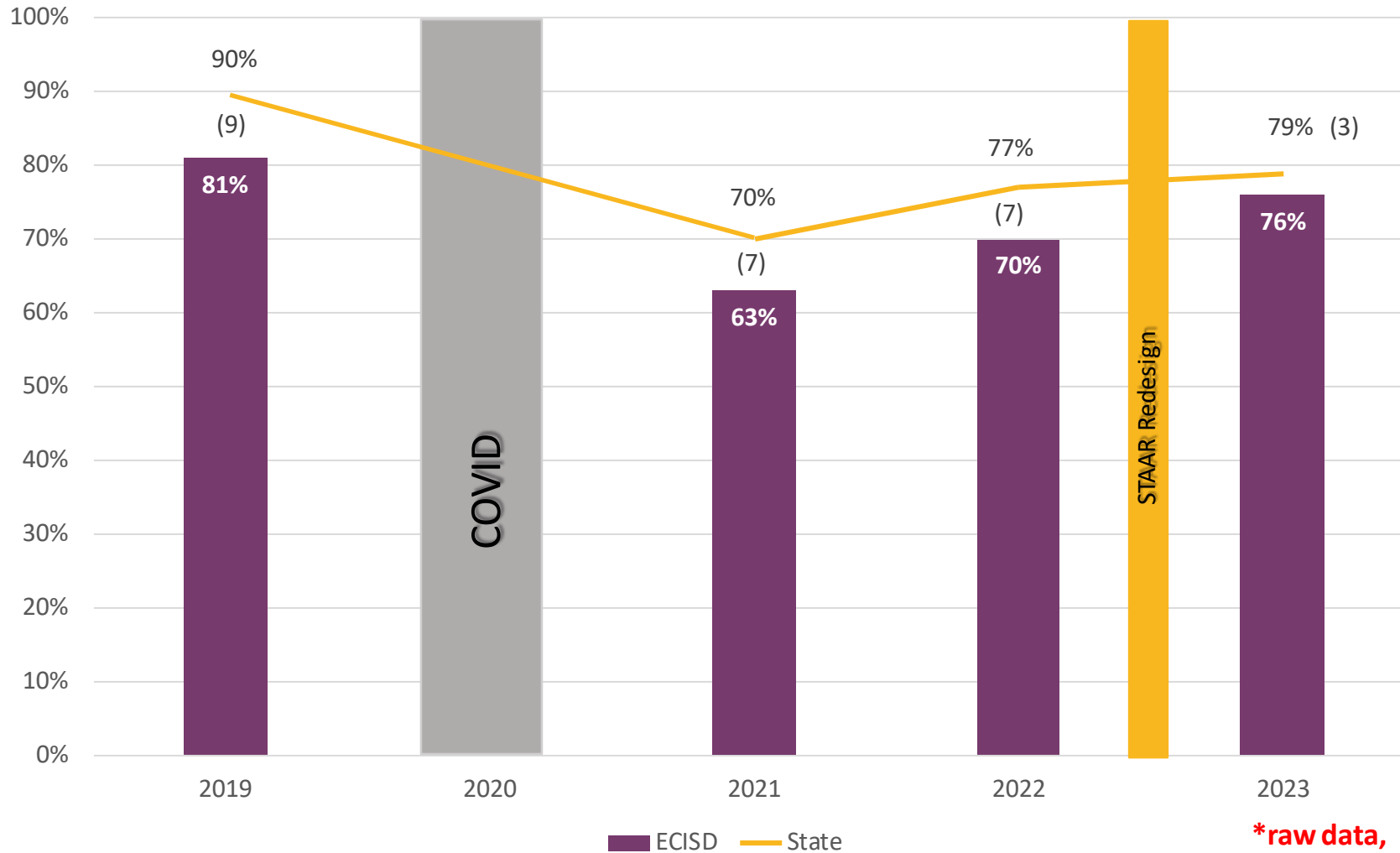
# Math 3-8 Overall Performance

ECISD	Did Not Meet	Approaches	Meets	Masters
3rd Grade	37%	63% (+1)	31% (-1)	11% (-2)
4th Grade	37%	63% (+1)	38% (+4)	14% (-1)
5th Grade	24%	76% (+6)	43% (+5)	14% (-2)
6th Grade	29%	71% (+6)	33%	12% (-1)
7th Grade	44%	56% (+2)	34% (+7)	9% (-2)
8th Grade	36%	64% (+15)	26% (+11)	4% (+2)
<b>Cumulative Total</b>		<b>+31 points</b>	<b>+26 points</b>	<b>-6 points</b>

State	Did Not Meet	Approaches	Meets	Masters
3rd Grade	28%	72% (+1)	43%	18% (-3)
4th Grade	31%	69% (-1)	46% (+3)	21% (-2)
5th Grade	21%	79% (+2)	49% (+1)	21% (-4)
6th Grade	26%	74% (+1)	37% (-2)	15% (-1)
7th Grade	39%	61%	35% (+4)	10% (-3)
8th Grade	26%	74% (+3)	44% (+4)	16% (+2)
<b>Cumulative Total</b>		<b>+6 points</b>	<b>+10 points</b>	<b>-11 points</b>

\*Note: Gain/loss calculated from 2022 TAPR compared to 2023 raw scores (not accountability subset) from <https://txreports.emetric.net/>

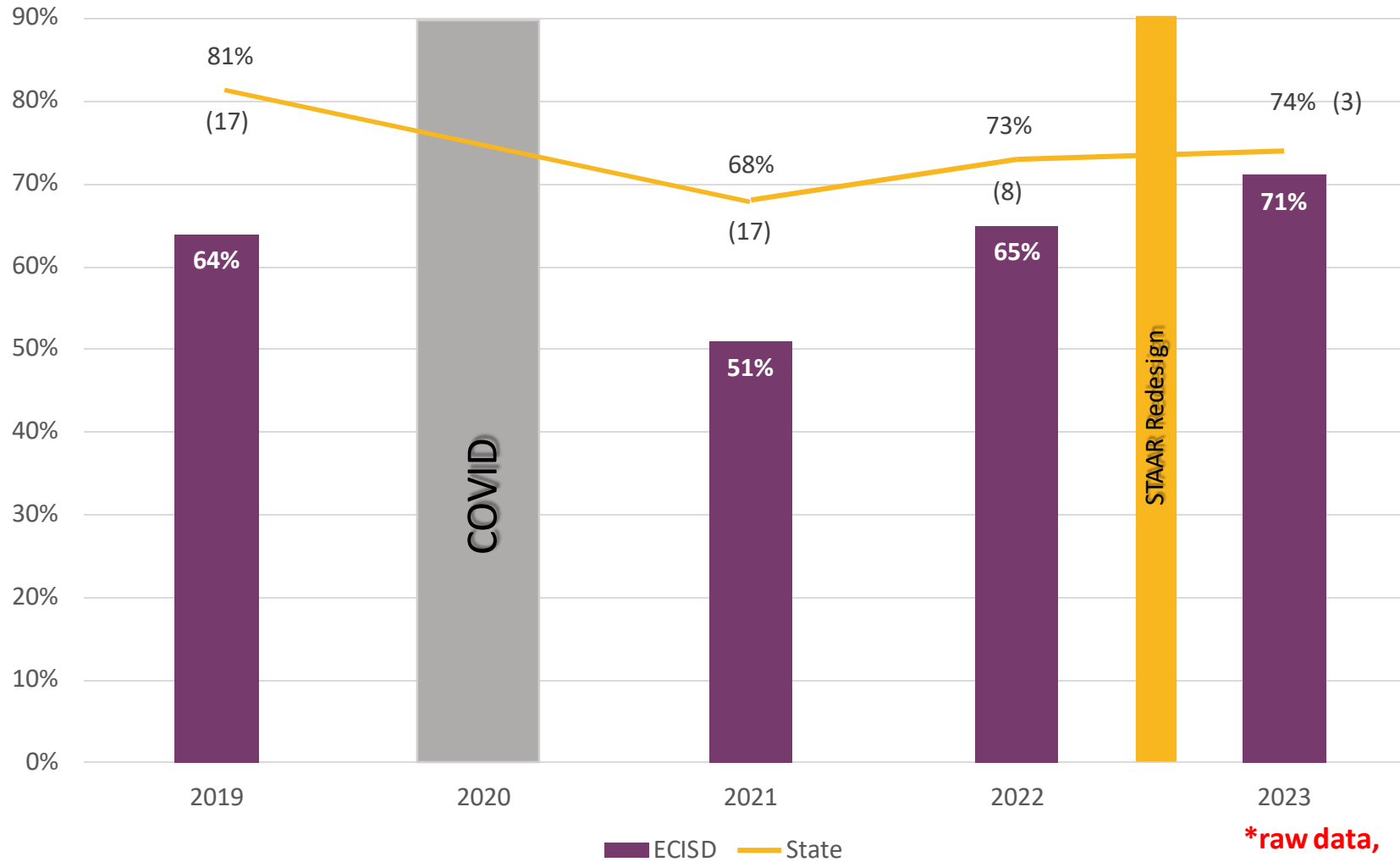
# 5<sup>th</sup> Grade Math Performance Over Time



\*English & Spanish assessment results are aggregated in grades 3-5 for accountability purposes

\*raw data, not acct. subset

# 6<sup>th</sup> Grade Math Performance Over Time



**\*raw data,  
not acct. subset**



# Math 3-8 Overall Performance

ECISD	Did Not Meet	Approaches	Meets	Masters
3rd Grade	37%	63% (+1)	31% (-1)	11% (-2)
4th Grade	37%	63% (+1)	38% (+4)	14% (-1)
5th Grade	24%	76% (+6)	43% (+5)	14% (-2)
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<b>Cumulative Total</b>		<b>+31 points</b>	<b>+26 points</b>	<b>-6 points</b>

State	Did Not Meet	Approaches	Meets	Masters
3rd Grade	28%	72% (+1)	43%	18% (-3)
4th Grade	31%	69% (-1)	46% (+3)	21% (-2)
5th Grade	21%	79% (+2)	49% (+1)	21% (-4)
6th Grade	26%	74% (+1)	37% (-2)	15% (-1)
7th Grade	39%	61%	35% (+4)	10% (-3)
8th Grade	26%	74% (+3)	44% (+4)	16% (+2)
<b>Cumulative Total</b>		<b>+6 points</b>	<b>+10 points</b>	<b>-11 points</b>

\*Note: Gain/loss calculated from 2022 TAPR compared to 2023 raw scores (not accountability subset) from <https://txreports.emetric.net/>

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# Making an **IMPACT** in Honors Courses



- Scope & Sequence Specific for Honors classes**
- Differentiated Assessments**
- District Planning Opportunities**

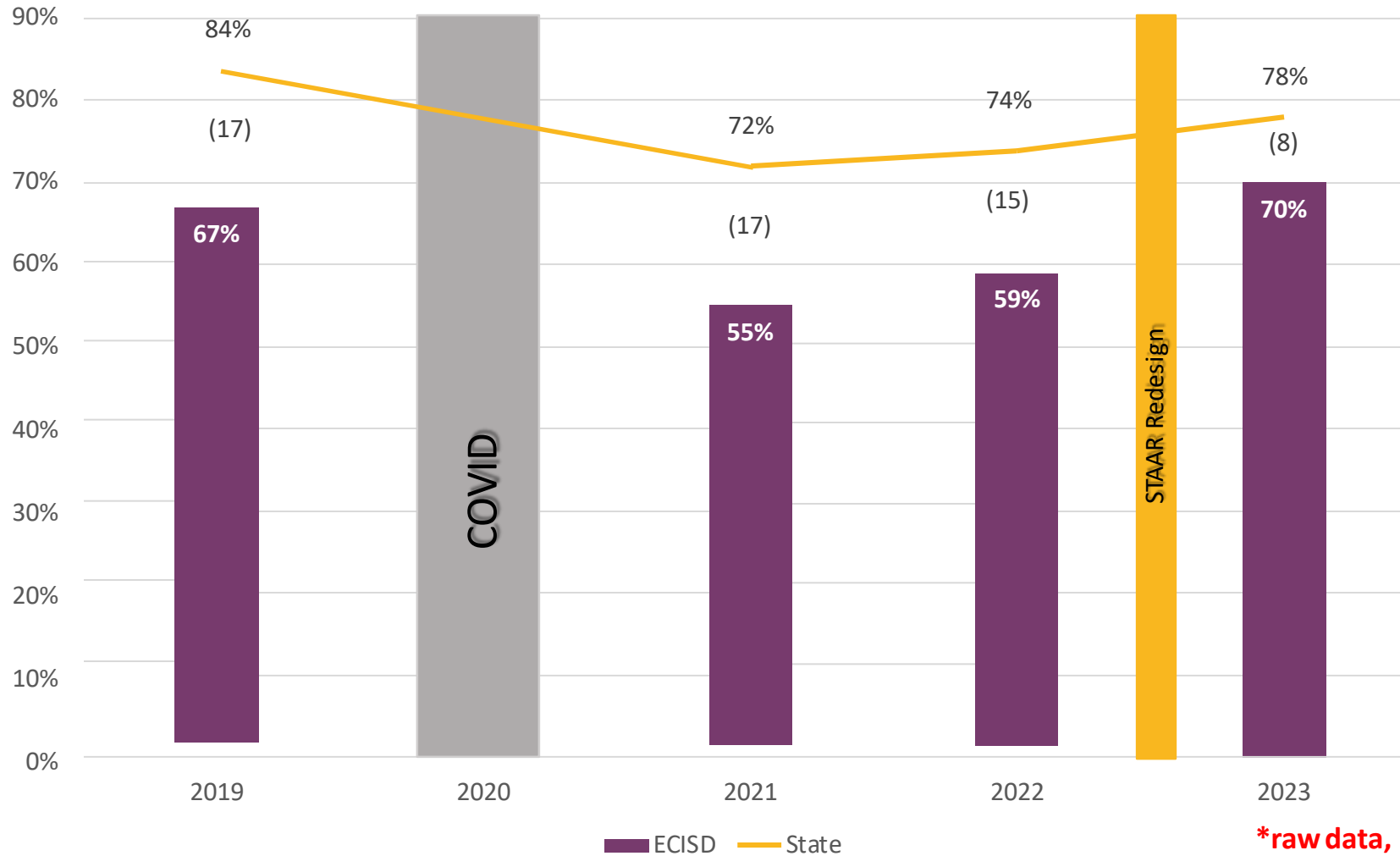
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# Making an IMPACT in 8-12 Math



- New unit assessments to measure skills both with and without the use of calculators**
- Set students up for success on high-stakes tests and on their math journey**

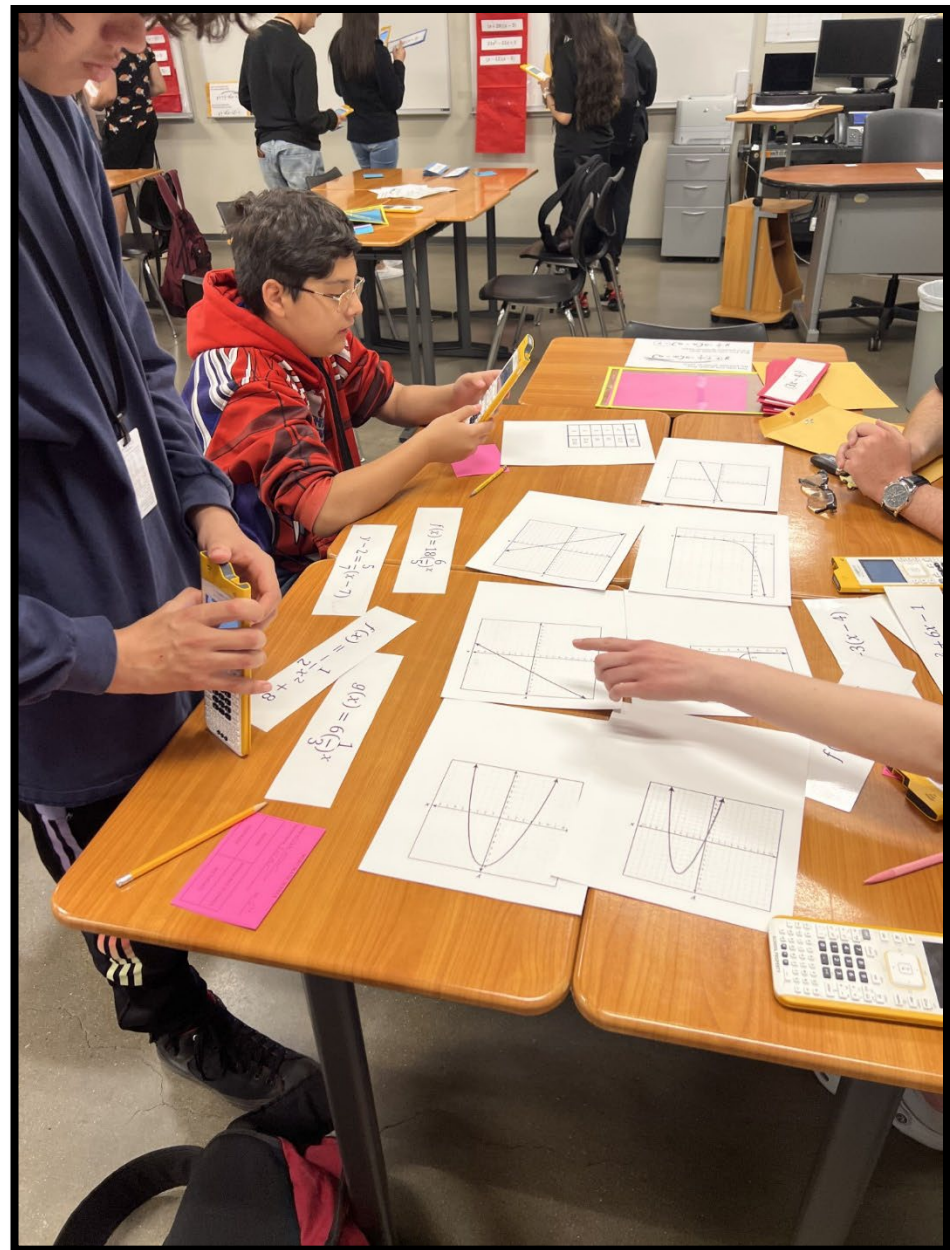
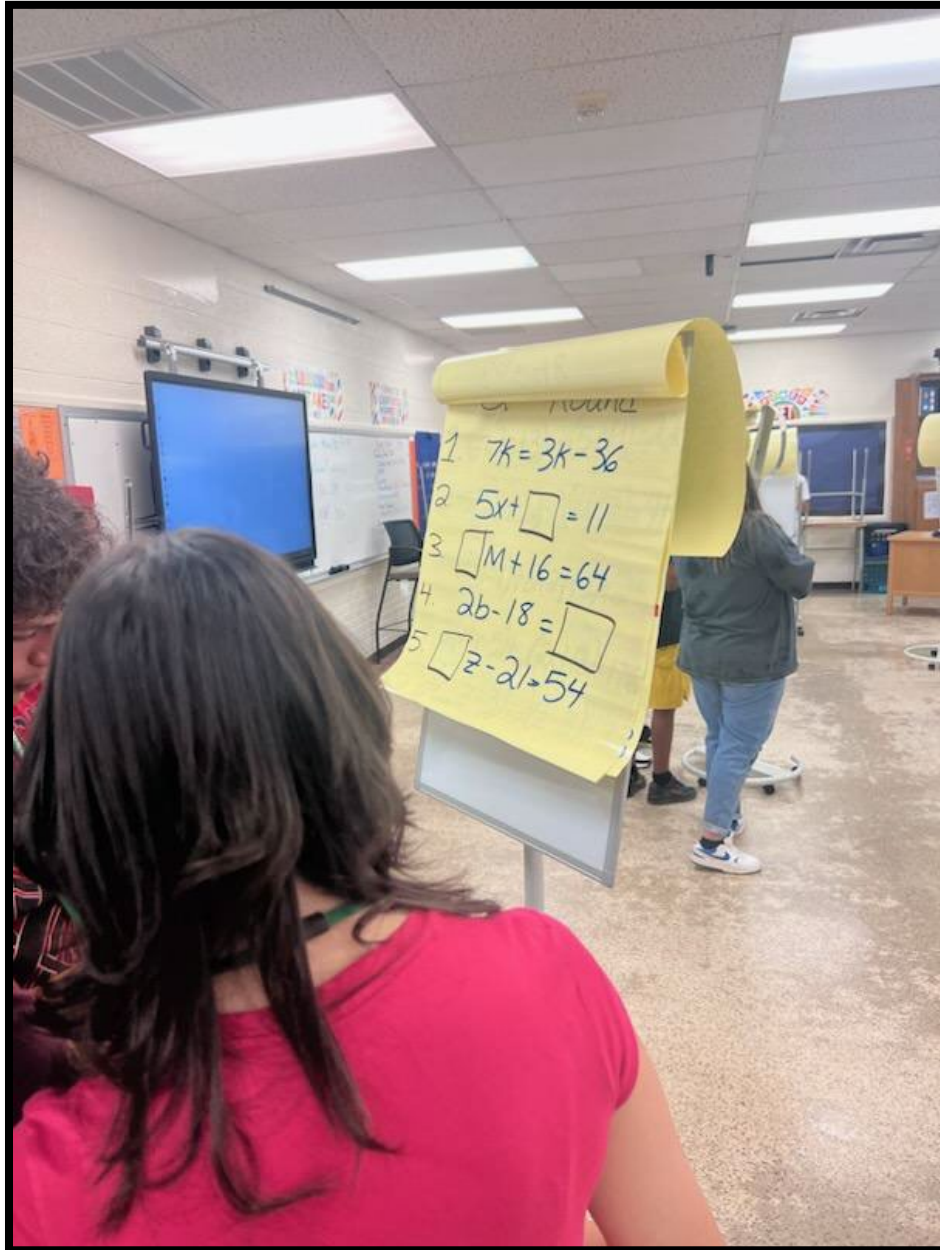
# Algebra 1 EOC Over Time



**\*raw data,  
not acct. subset**

ALL COURSES	SCHEDULE BREAKDOWN:	TOOLS FOR PLANNING INSTRUCTION	APPROVED INSTRUCTIONAL RESOURCES FOR WHOLE GROUP	APPROVED INSTRUCTIONAL RESOURCES FOR SMALL GROUP
<p><b>Double-Block Classes</b></p> <p>*Small Groups during second block at least 4 days per week.</p>	<p>Do-Now/Warm-Up: <b>5-7 Minutes</b></p> <p>Whole Group Instruction: <b>15 Minutes</b> Includes:</p> <ul style="list-style-type: none"> <li>-Direct Instruction</li> <li>-Guided Practice</li> <li>-Online activities through:               <ul style="list-style-type: none"> <li>● Schoology</li> <li>● Nearpod</li> <li>● Flipgrid</li> <li>● Khan Academy</li> </ul> </li> </ul> <p>Independent Practice: <b>20 Minutes</b> - At least 2 laps of aggressive monitoring.</p> <p><b>Between blocks:</b> -Number Talk</p> <p><b>Small Group Rotations:</b> -<b>10-15 minutes</b> each rotation -3 Rotations per day <b>Includes:</b> -Small Group Instruction -Imagine Math -Imagine Math Facts -Collaborative Groups</p> <p>Demonstrate Knowledge: <b>3-5 Minutes</b> -Exit tickets -Quick checks</p>	<ul style="list-style-type: none"> <li>● <a href="#">ECISD Lesson Plan Template</a></li> <li>● <a href="#">Secondary Math Pacing Guide</a></li> <li>● TEKS Resource System Resources           <ul style="list-style-type: none"> <li>○ Year-at-a-Glance               <ul style="list-style-type: none"> <li>&gt; <a href="#">HMH Alignment with 6th YAG</a></li> <li>&gt; <a href="#">HMH Alignment with 7th YAG</a></li> <li>&gt; <a href="#">HMH Alignment with 8th YAG</a></li> <li>&gt; <a href="#">HMH Alignment with Alg YAG</a></li> </ul> </li> <li>○ TEKS Clarification Document</li> <li>○ Vertical Alignment Document</li> </ul> </li> <li>● Look at MAP data ( <a href="#">MAP Growth Data PLC Process</a> )</li> <li>● Look at Eduphoria data           <ul style="list-style-type: none"> <li>○ Short Cycles</li> <li>○ STAAR data</li> <li>○ District Benchmarks</li> </ul> </li> <li>● Look at TEKS Alignment documents           <ul style="list-style-type: none"> <li>○ <a href="#">HMH 6th Grade</a></li> <li>○ <a href="#">Maneuvering the Middle-6th</a></li> <li>○ <a href="#">HMH 7th Grade</a></li> <li>○ <a href="#">Maneuvering the Middle-7th</a></li> <li>○ <a href="#">HMH 8th Grade</a></li> <li>○ <a href="#">Maneuvering the Middle-8th</a></li> <li>○ <a href="#">HMH Algebra 1</a></li> </ul> </li> <li>● <a href="#">ELPS Interactive Language Objectives</a></li> </ul>	<ul style="list-style-type: none"> <li>● HMH Resources           <div style="text-align: center;">  </div> <ul style="list-style-type: none"> <li>○ Reteach</li> <li>○ Student Challenge</li> <li>○ Leveled Practice &amp; Problem Solving</li> <li>○ On the Spot Videos</li> <li>○ Are You Ready? Skill Work</li> </ul> </li> <li>● Maneuvering the Middle</li> <li>● All Things Algebra</li> <li>● SIRIUS Math (6th - Alg 1)</li> <li>● Discovery Education</li> <li>● Khan Academy</li> <li>● TEKS Resource System</li> <li>● Region 18 Materials</li> <li>● Desmos</li> <li>● Honors Courses           <ul style="list-style-type: none"> <li>- National Math and Science Initiative - Laying the Foundation (for trained teachers)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Imagine Math (6th-Alg 1)</li> <li>● Imagine Math Facts (6th-Alg 1)</li> <li>● SIRIUS Math (6th-Alg 1)</li> <li>● Legends of Learning (6th - 8th)</li> <li>● HMH Resources           <ul style="list-style-type: none"> <li>○ Reteach</li> <li>○ Student Challenge</li> <li>○ Leveled Practice &amp; Problem Solving</li> <li>○ On the Spot Videos</li> <li>○ Are You Ready? Skill Work</li> </ul> </li> <li>● Maneuvering the Middle</li> <li>● YouCubed.org</li> <li>● Discovery Education</li> <li>● Khan Academy</li> <li>● TEKS Resource System</li> <li>● Region 18 Materials</li> <li>● Desmos</li> </ul>







**"Name It" Section** - (depending on where you are in the scope of the unit - you will toggle between this and the section below)

- 2-3 minute** directions
  - What is the task going to be and how do students accomplish what you are asking them to do
- 15-minute** class or small group activities
  - Can be station rotations or inquiry-based investigations

**Closing Section - 8 Minutes Total - MANDATORY**

- Wrap up of the day's activities
  - bring back in the day's objective and how the activities they participated in accomplished the day's goal
- Exit Ticket
  - This is a way to measure the level of understanding of a single (the most important) aspect of the day's work
  - Exit Ticket Ideas:**
    - STEMscopes Fundamental Questions (Scope dashboard)
    - STEMscopes Post Assessment Questions (Evaluate tab)
    - STEMscopes Concept Attainment Quiz (Intervention Tab)
    - STEMscopes CLOZE-ing in on Science (Intervention tab)
    - Model Questions or Sample Interactive Questions Found in Schoology unit folders
    - Zingers from Sirius (5th, 8th and Biology ONLY)

- STEMscopes Completion of Student Journal from Explore activity (Explore tab)
- STEMscopes C-E-R (Evaluate tab)
- STEMscopes Linking Literacy (Explain tab)
- STEMscopes Science Today (Elaborate tab)
- STEMscopes Concept Review Game (Elaborate tab)
- The teacher will need to make sure to actively and aggressively monitor students
- Please make sure that during your PLC times that you have choreographed your monitoring laps during this time

Ensure that you are using District Approved Science Resources found [HERE](#)

**45 Minute Science Lesson Cycle**

<b>E</b> <small>Enter and Welcome Students</small>	<p><b>Do Now Section</b> - 8-minute Total - MANDATORY</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Students work assigned Do Now</li> <li><input type="checkbox"/> <b>Do Now Options:</b> Intro to the day's materials OR a chance to spiral in foundational skills of low-level TEKS from previous formative assessments</li> <li><input type="checkbox"/> <b>When you are following:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Day 1 of Scope: STEMscopes Pre-Assessment (Knowledge Talk) 4th grade +</li> <li><input type="checkbox"/> Provided Do Now posted in Schoology</li> <li><input type="checkbox"/> Question Prompts (Explain Talk)</li> <li><input type="checkbox"/> Model Questions or Sample Interactive Questions Found in Schoology unit folders</li> </ul> </li> <li><input type="checkbox"/> Clear discussion of the Do Now                     <ul style="list-style-type: none"> <li><input type="checkbox"/> This is a chance to show test-taking strategies and how to clear up any misconceptions that students may have</li> </ul> </li> </ul>
<b>C</b> <small>Connect/Preview the Learning Objective</small>	<p><b>"Name It" Section</b> - MANDATORY</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> 2-3 minute Hook                     <ul style="list-style-type: none"> <li><input type="checkbox"/> This is the chance to WOW your students - how are you going to get them excited about learning something new</li> </ul> </li> <li><input type="checkbox"/> <b>When you are following:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> STEMscopes Starter (Engage talk)</li> <li><input type="checkbox"/> STEMscopes Science Hook (Explain talk)</li> <li><input type="checkbox"/> STEMscopes Content Connections Video (Explain talk)</li> </ul> </li> <li><input type="checkbox"/> 2-3 Minute Introduction to the Objective for the Day:                     <ul style="list-style-type: none"> <li><input type="checkbox"/> Make sure students understand the goal of the day</li> </ul> </li> <li><input type="checkbox"/> 5-minute Teacher Guided Activity                     <ul style="list-style-type: none"> <li><input type="checkbox"/> Rolling out the new material for the day</li> </ul> </li> </ul>
<b>I</b> <small>Instruction &amp; Modeling</small>	<p><b>"Name It" Section</b> - (depending on where you are in the scope of the unit - you will toggle between this and the section below)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> 2-3 minute directions                     <ul style="list-style-type: none"> <li><input type="checkbox"/> What is the task going to be and how do students accomplish what you are asking them to do</li> </ul> </li> <li><input type="checkbox"/> 15-minute class or small group activities                     <ul style="list-style-type: none"> <li><input type="checkbox"/> Can be station rotations or inquiry-based investigations</li> </ul> </li> <li><input type="checkbox"/> <b>Activity Ideas:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> STEMscopes Explore activity (Explain talk) *May take several days to complete</li> <li><input type="checkbox"/> STEMscopes Engage activity (Engage talk)</li> <li><input type="checkbox"/> STEMscopes (Explain talk)</li> </ul> </li> </ul>
<b>OR</b>	
<b>S</b> <small>Student Collaboration and/or Creation</small>	<p><b>Do Now Section</b> - (depending on where you are in the scope of the unit - you will toggle between this and the section above)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> 2-3 minute directions                     <ul style="list-style-type: none"> <li><input type="checkbox"/> What is the task going to be and how do students accomplish what you are asking them to do</li> </ul> </li> <li><input type="checkbox"/> 15 minutes of independent practice                     <ul style="list-style-type: none"> <li><input type="checkbox"/> Students will work silently to demonstrate their level of understanding of the material just practiced</li> </ul> </li> <li><input type="checkbox"/> <b>Independent Practice Ideas:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Focus Friday - Personalized Instructional Playlists</b></li> <li><input type="checkbox"/> STEMscopes Completion of Student Journal from Explore activity (Explain talk)</li> <li><input type="checkbox"/> STEMscopes C-E-R (Evaluate talk)</li> <li><input type="checkbox"/> STEMscopes Linking Literacy (Explain talk)</li> <li><input type="checkbox"/> STEMscopes Science Today (Elaborate talk)</li> <li><input type="checkbox"/> STEMscopes Concept Review Game (Elaborate talk)</li> </ul> </li> <li><input type="checkbox"/> The teacher will need to make sure and actively and aggressively monitor students                     <ul style="list-style-type: none"> <li><input type="checkbox"/> Please make sure that during your PLC times that you have choreographed your monitoring laps during this time</li> </ul> </li> </ul>
<b>AND</b>	
<b>D</b> <small>Data Collection/Check for Understanding</small>	<p><b>Closing Section</b> - 8 Minutes Total - MANDATORY</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Wrap up of the day's activities                     <ul style="list-style-type: none"> <li><input type="checkbox"/> bring back in the day's objective and how the activities they participated in accomplished the day's goal</li> </ul> </li> <li><input type="checkbox"/> Exit Ticket                     <ul style="list-style-type: none"> <li><input type="checkbox"/> This is a way to measure the level of understanding of a single (the most important) aspect of the day's work</li> <li><input type="checkbox"/> <b>Exit Ticket Ideas:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> STEMscopes Fundamental Questions (Scope dashboard)</li> <li><input type="checkbox"/> STEMscopes Post Assessment Questions (Evaluate tab)</li> <li><input type="checkbox"/> STEMscopes Concept Attainment Quiz (Intervention Tab)</li> <li><input type="checkbox"/> STEMscopes CLOZE-ing in on Science (Intervention tab)</li> <li><input type="checkbox"/> Model Questions or Sample Interactive Questions Found in Schoology unit folders</li> <li><input type="checkbox"/> Zingers from Sirius (5th, 8th and Biology ONLY)</li> </ul> </li> </ul> </li> </ul>

Data Collection/  
Check for  
Understanding

Student  
Independent  
Practice and/or  
Creation

# Science 5 & 8 Overall Performance

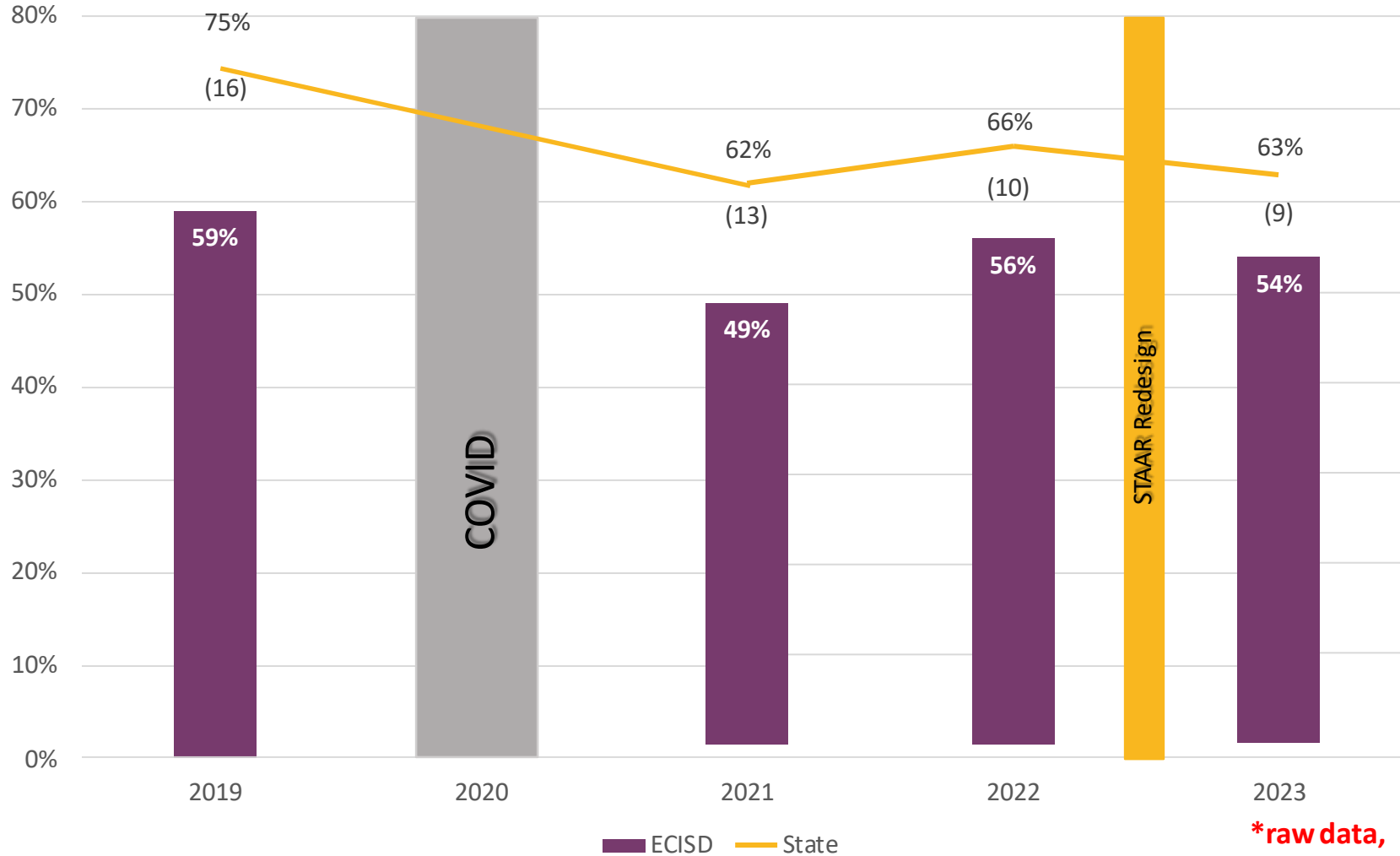
ECISD	Did Not Meet	Approaches	Meets	Masters
5th Grade	46%	54% (-2)	24% (-4)	9% (-1)
8th Grade	37%	63% (+6)	32% (+6)	8% (-3)
<b>Cumulative Total</b>		<b>+4 points</b>	<b>+2 points</b>	<b>-4 points</b>

State	Did Not Meet	Approaches	Meets	Masters
5th Grade	37%	63% (-3)	34% (-4)	15% (-3)
8th Grade	28%	72% (-2)	45%	16% (-8)
<b>Cumulative Total</b>		<b>-5 points</b>	<b>-4 point</b>	<b>-11 points</b>

\*Note: Gain/loss calculated from 2022 TAPR compared to 2023 raw scores (not accountability subset) from <https://txreports.emetric.net/>

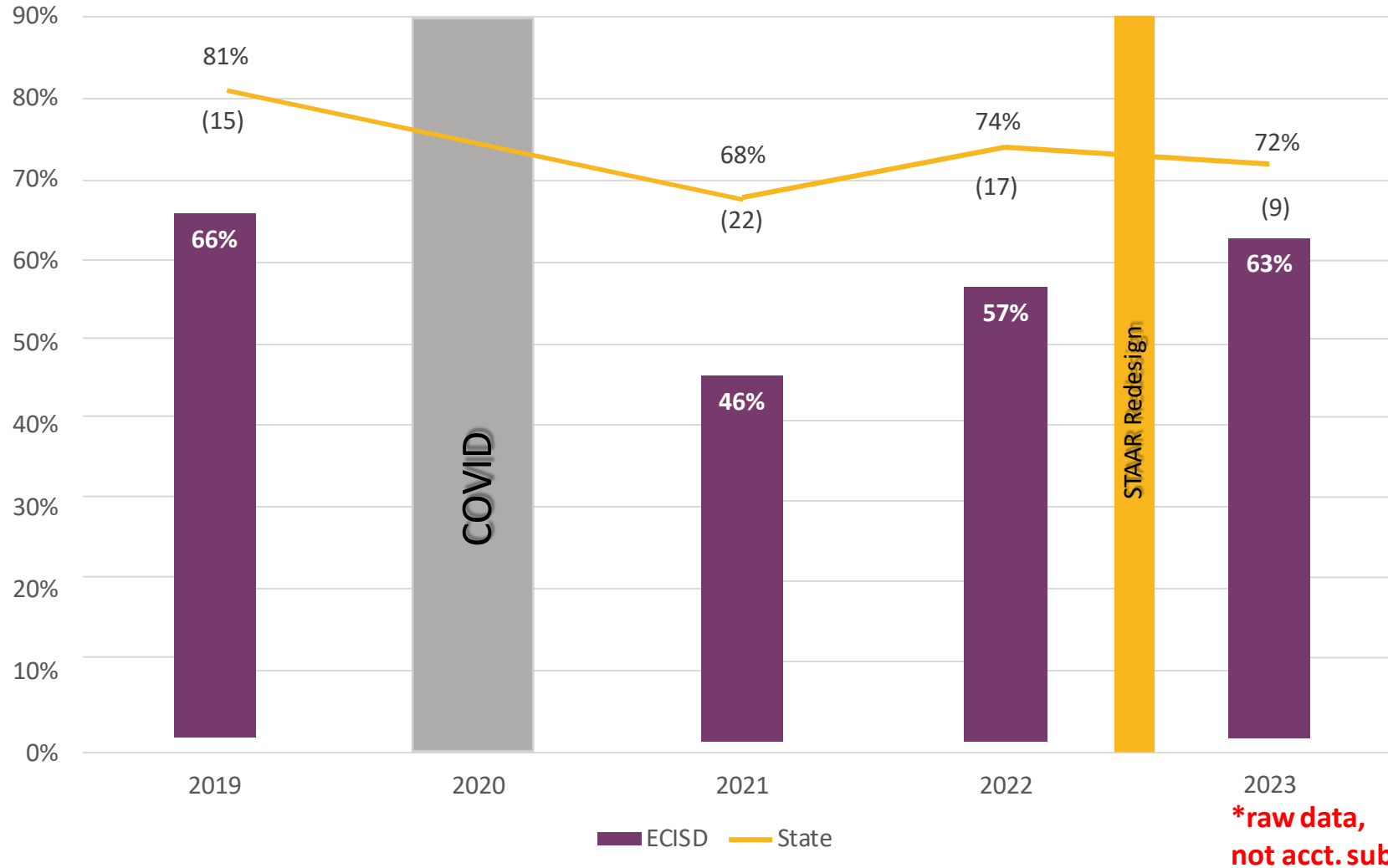
# 5<sup>th</sup> Grade Science Performance Over Time

\*English & Spanish assessment results are aggregated in grades 3-5 for accountability purposes

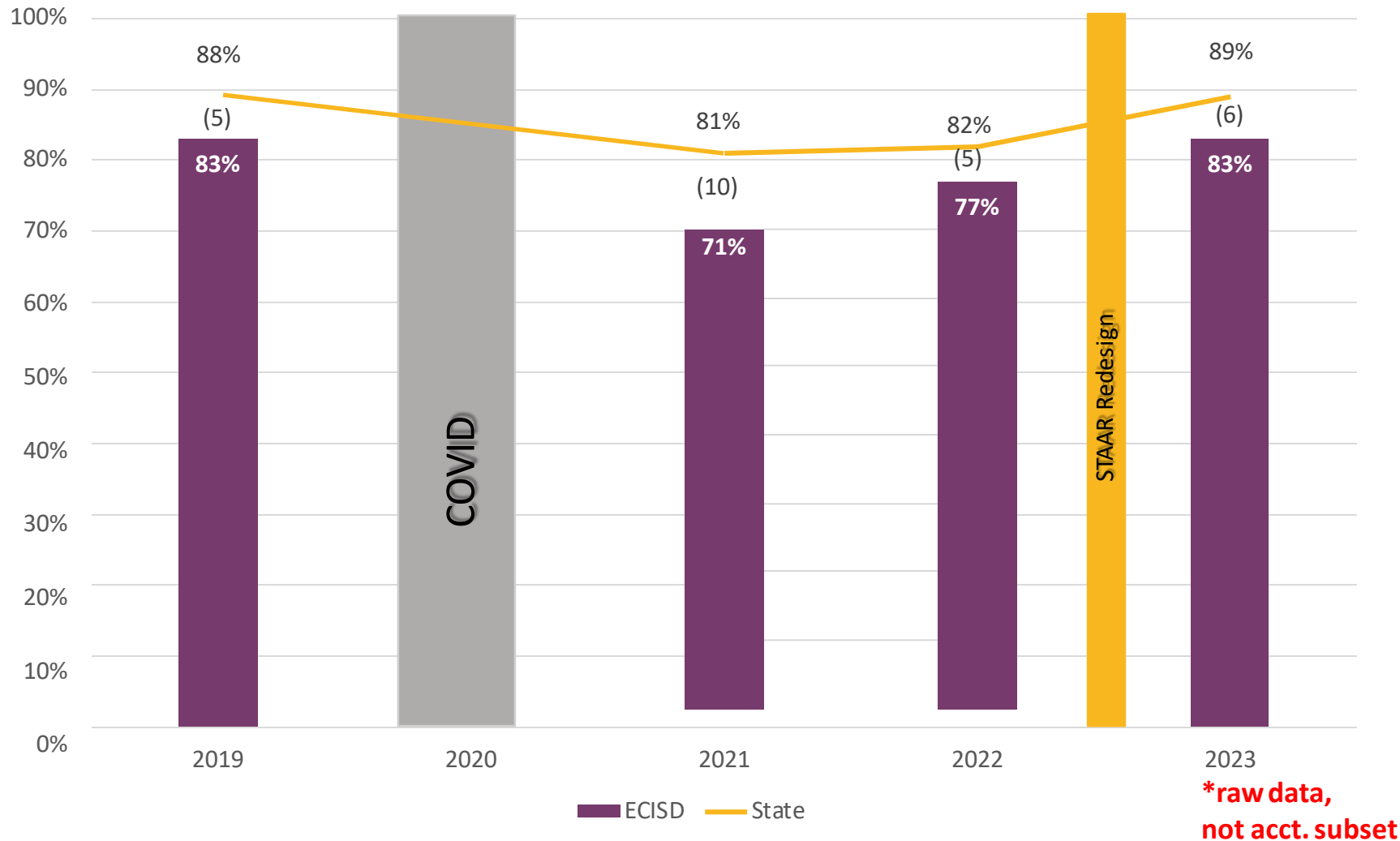


\*raw data, not acct. subset

# 8<sup>th</sup> Grade Science Performance Over Time



# Biology EOC Over Time







# Cal Ripken STEM Lab Campuses

<p>2022 – 2023</p>	<p>2023</p>	
<p>1. <b>PERMIAN</b></p>	<p>1. Austin</p>	
<p>2. Carver</p>	<p>2. Austin</p>	
<p>3. Cavazos</p>	<p>3. Blanton</p>	
<p>4. Downing</p>	<p>4. Burnes</p>	
<p>5. Goliad</p>	<p>5. Burnet</p>	
<p>6. Gonzales</p>	<p>6. Cameron</p>	
<p>7. Ireland</p>	<p>7. Downing</p>	
<p>8. LBJ</p>	<p>8. Fly</p>	
<p>9. Jordan</p>	<p>9. Hays</p>	
<p>10. Lamar</p>	<p>10. Sam Houston</p>	
<p>11. Milam</p>	<p>11. San Jacinto</p>	
<p>12. Noel</p>	<p>12. Travis</p>	
<p>13. Pease</p>	<p>13. West</p>	
<p>14. Reagan</p>	<p>14. STEM Academy</p>	
<p>15. Ross</p>		
<p>16. Zavala</p>		

P

STRATEGIC PARTNERSHIP

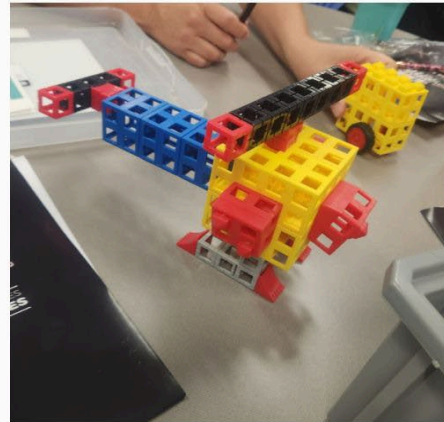
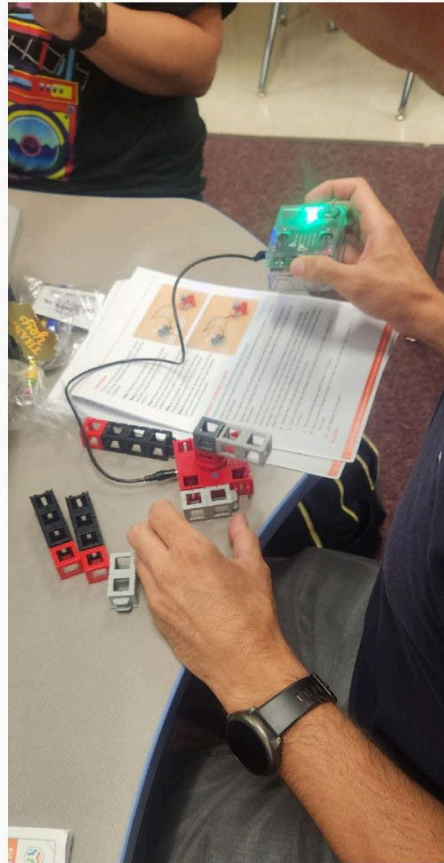
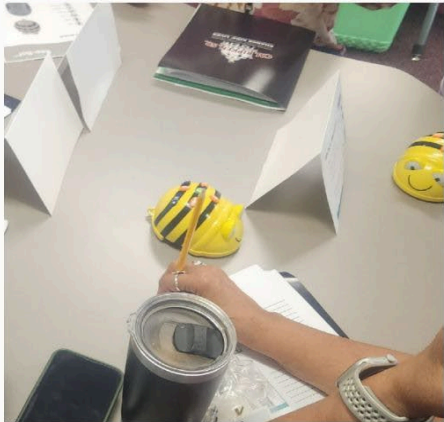
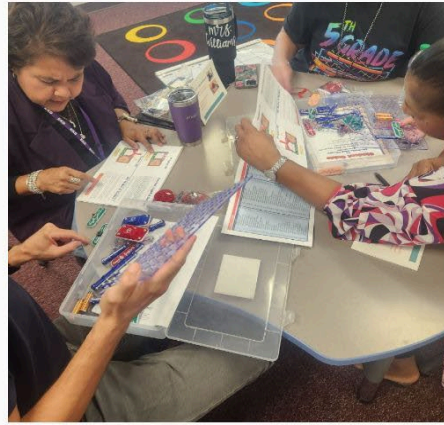
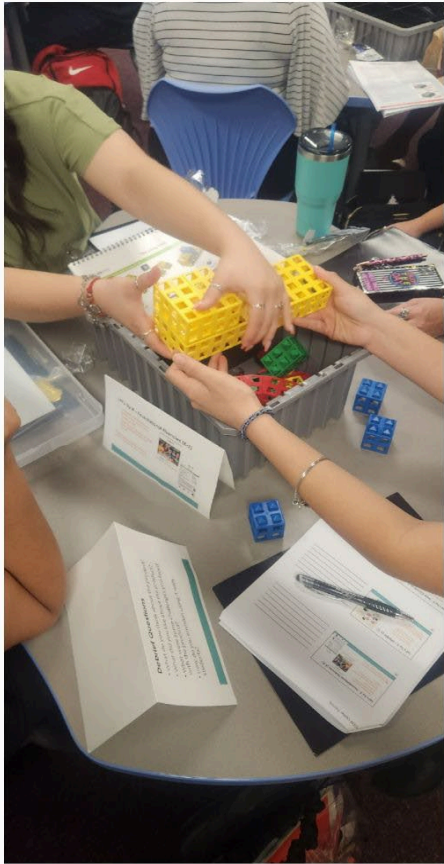
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amazon

future >>  
engineer

BootUp

Professional Development™

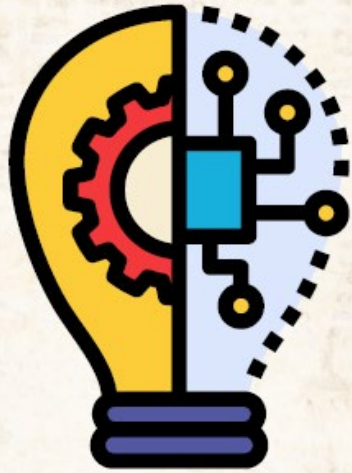


**All PK – 5 students will visit the STEM Lab at least 2 times per month for 45 minutes.**



Ector County ISD Curriculum and Instruction Department Present

# STEM SUMMIT



## MATH AND SCIENCE PEDAGOGY FOR ALL PK-12 TEACHERS

[Click Here](#) for full session details and descriptions

### FULL EVENT DETAILS

**Location:** Odessa High School  
(1301 Dotsy Ave. - 79763)

**Date:** October 14, 2023

**Time:** 8:00-4:30

**RSVP:** [Click Here](#) to Register by 10/7/2023

MORE INFORMATION CONTACT CAITLIN COUCH - 432.456.8513

#### SPECIAL EVENTS:



Annular Solar  
Eclipse Balloon  
Launch - *Eclipse  
glasses will be  
provided*

Lunch and  
Snacks  
Provided



Prize Give-  
a-ways

And a special thank you to  
the following partners  
for making this event  
possible

*(Click on each logo to learn more!)*

**AccelerateLEARNING**  
THE LEADER in STEM EDUCATION



**SPACE TREK**  
@SPACETREK\_KSC



# Our Formula for Teacher Success

**Attention To Details**

**+**

**Intention With Strategic Planning**

**-**

**Tension Stress of Finding Materials & Resources**

**=**

**Retention**

**100%**



# IMPACT

