

Washington Central Unified Union School District

WCUUSD exists to nurture and inspire in all students the passion, creativity and power to contribute to their local and global communities.

1130 Gallison Hill Road
Montpelier, VT 05602
Phone (802) 229-0553
Fax (802) 229-2761

Bryan Olkowski
Superintendent



WCUUSD Quality Committee Meeting Agenda 2.3.21 5:00 - 6:00 pm

Via Video Conference*

<https://tinyurl.com/y6a9umz9>

Meeting ID: 921 1531 6948

Password: 016334

Dial by Your Location: 1- 929- 205- 6099

1. Call to Order
2. Approve Minutes of 1.6.21
3. Reflection on Last Month's Review (Continuous Improvement Planning)
4. Discussion – Presentation of WCUUSD Mathematical Content and Practices
 - 4.1. Making Meaning Protocol
 - What do you see?
 - What questions does this presentation raise for you?
 - What strikes you as significant?
 - What are the implications for our work?
 - 4.2. Going Forward
 - How will we share this work with the full board?
 - What worked about this process?
 - What might we change for next month's SLO presentation?
5. Future Agenda Items
 - 5.1. Co-Curricular and Advanced Placement
6. Adjourn

***Open Meeting Law temporary changes as of 3/30/20:**

Boards are not required to designate a physical meeting location. Board members and staff are not required to be present at a designated meeting location.

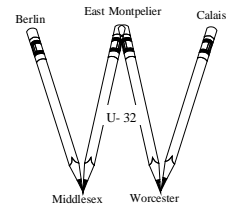
Our building will not be open for meetings. All are welcome to attend virtually.

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WCUUSD Quality Committee Meeting Minutes Unapproved 1.6.21 5:00 - 6:00 pm

Present: Jen Miller-Arsenault, Superintendent Bryan Olkowski, Kari Bradley, Diane Nichols-Fleming, Flor Diaz Smith, Anna Farber, Jill Olson

- 1. Call to Order:** Kari Bradley called the meeting to order at 5:02 p.m.
Kari noted that we will be using a different protocol for tonight's discussion.
- 2. Approve Minutes of 12.2.20:** Diane Nichols-Fleming moved to approve the minutes of December 2, 2020. Seconded by Kari Bradley, this motion carried unanimously.
- 3. Reflection on Last Month's Review (Transferrable Skills):**
Diane Nichols-Fleming stated that she feels that we are getting into a rhythm as far as how to share information and seek feedback. She suggested that we use teachable moments when they arise, to bring the idea of "transferrable skills" to the attention of the board. She suggested, for example, prepping the board before a meeting to keep alert to transferable skills as they are observed. Kari Bradley noted that transferable skills is a big topic and having only 15 minutes to present to the full board is challenging but that we are just beginning to become familiar with the concept of transferable skills.
- 4. Discussion – Presentation of WCUUSD Continuous Improvement Planning (CIP):**
Jen Miller-Arsenault presented to the committee: *WCUUSD Continuous Improvement Planning (CIP)*

4.1. Modified Coffee Talk Protocol:

- What was affirming?
- What did you find challenging or confusing?
- What are you wondering about/what questions do you have?
- What are our next steps?

Diane: Affirming - the new take, and connecting to continuous, ongoing process with a time frame. Wondering - how to find PD time? It's always the balancing act between student instruction time and reflection/ planning time.

Flor: Affirming - hearing from the principal's talk about "kid talk" and to hear the excitement around CIP. Triangulation of data. Wondering - creating a more formal way of talking about "kid talk" - is this district wide? Or at one or two schools?
Wondering about data around math - wondering where is the data around literacy?

Wondering what does “diversity talks” mean across our district? How to move forward in this? Wondering at what point will we bring the community back together to discuss CIP? What will the committee look like so that the community has some ownership?

Jill: Affirming - nice to make the connection to her “day job” - the topic of CIP is familiar to her in her line of work. Jill had asked some questions during the presentation.

Anna: Affirming - see the interconnectedness between CIP and student learning outcomes. Wondering - how will we improve student test scores?

Kari: Affirming - the plan includes rational steps; the focus on math seems appropriate; likes that there is alignment across the district.

Challenging - affecting change across a district is so slow – incremental progress in one particular area, where we want to make a lot of progress in a lot of areas.

Wondering - maybe part of strategic planning should be about identifying obstacles and seeing what we can do to remove them. Wondering - what lessons can we learn from this planning process to inform our Strategic Planning? E.g. - We are going to need to prioritize; hone in on specific areas to focus. We don’t have as many opportunities as a board to be involved in a more informed way - this is a great opportunity to do that in an ongoing way.

Bryan: reiterated the “Equity Support” piece. A large number of Vermont schools fall into this category of requiring this support. We are going to have to include some equity guidance in the CIP goals.

Jen Miller-Arsenault: one of the positive outcomes of the pandemic has been that we have become adept at virtual meetings - geography is no longer an obstacle.

4.2. Going Forward

How will we share this work with the full board?

Flor: enjoyed the presentations (short video clips) by each principal - those, along with the goals are very informative.

Kari: would like to have an overview from Jen as she has in the past

Jill: an overview with one or two of the goals in the written format

Kari: what if we posed a question or two for board members to reflect on after reading the materials, to present when we come together as a group. Kari will work with Jen and Bryan on coming up with some questions (one or two) and then sharing a link with board members in advance of the next meeting.

What worked about this process?

What might we change for next month’s SLO presentation?

Bryan: CIP may be an interesting link to interconnect with Strategic Plan

Flor - what does the leadership need from the board, to accelerate this process?

5. Future Agenda Items - next month: MATH

5.1. Co-Curricular and Advanced Placement

6. Adjourn: The committee adjourned at 5:55 p.m.

Respectfully submitted,

Lisa Stoudt, Committee Recording Secretary

WCUUSD Mathematical Content and Practices SLO

Education Quality Committee
February 3, 2021

STUDENT LEARNING OUTCOMES



WCSU exists to nurture and inspire in all students the passion, creativity, and power to contribute to their local and global communities.



MATH CONTENT & PRACTICES

#1

NUMBER AND QUANTITY

Reason, describe, and analyze quantitatively, using units and number systems to solve problems.

#4

GEOMETRY

Understand geometric concepts and constructions, prove theorems, and apply appropriate results to solve problems.

#2

ALGEBRA

Create, interpret, use, and analyze expressions, equations, and inequalities.

#5

STATISTICS AND PROBABILITY

Use concepts of statistics and probability to analyze data and make informed decisions.

#3

FUNCTIONS

Use functions, including linear, quadratic, trigonometric, and exponential, to interpret and analyze a variety of contexts.



WASHINGTON CENTRAL
SUPERVISORY UNION

Modified Making Meaning Protocol

As you enjoy this presentation, consider:

- What do you see?
- What questions does this presentation raise for you?
- What strikes you as significant?
- What are the implications for our work?



Curriculum: Standards and Performance Indicators

- Five standards
 - Number and Quantity
 - Algebra
 - Functions
 - Geometry
 - Statistics and Probability
(Measurement and Data)
- Aligned to Common Core State Standards
- [WCUUSD Math Proficiency Progressions K-8](#)
- Students typically achieve proficiency at the graduation level by successful completion of math courses through Algebra II

MATHEMATICAL CONTENT AND PRACTICES	
PBGR	
Standard 1: Number and Quantity	
	Reason, describe, and analyze quantitatively, using units and number systems to solve problems.
	Performance Indicators:
a.	Understand and apply properties of exponents.
b.	Use the properties of rational and irrational numbers.
c.	Reason quantitatively to solve problems.
Standard 2: Algebra	
	Create, interpret, use, and analyze expressions, equations, and inequalities.
	Performance Indicators:
a.	Interpret, create, and manipulate expressions to describe relationships.
b.	Solve equations or inequalities and/or systems of equations.
c.	Create equations or inequalities and/or systems of equations.
Standard 3: Functions	
	Use functions, including linear, quadratic, trigonometric, and exponential, to interpret and analyze a variety of contexts.
	Performance Indicators:
a.	Analyze, interpret, and compare functions.
b.	Create functions that model a relationship between two quantities.
c.	Build functions from existing functions.
Standard 4: Geometry	

Instruction: Overview and High Leverage Math Instructional Practices

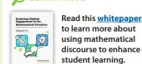
Ready Classroom
Mathematics

Get to Know Ready Classroom Mathematics

What is Ready Classroom Mathematics?

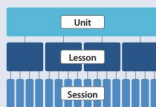
Ready Classroom Mathematics is a robust mathematics program that helps students become strong, independent mathematical thinkers. The program uses a different approach to math instruction that focuses on learning through problem solving. The use of daily embedded learning routines helps you guide students through discourse-based instruction as they strengthen their conceptual understanding of mathematics. These routines ensure that all students develop the problem-solving skills needed to become independent and confident mathematical thinkers.

Learn More



How are lessons structured differently?

In Ready Classroom Mathematics, lessons span multiple days and are divided into shorter sessions. This provides students with the time necessary to dig deeper into concepts, strengthening their understanding and helping them become independent learners.



There are three types of lessons:

Understand Lessons

These lessons focus primarily on conceptual understanding.

Strategy Lessons

These lessons let students develop and discuss a variety of solution strategies.

Math in Action Lessons (Gr. 2-8)

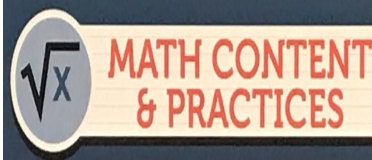
These lessons review unit content and teach students how

i-Ready Diagnostic:

The *i-Ready Diagnostic* is an adaptive student's needs. Each item a student: the previous question. For example, a harder questions, while a series of inc The purpose of this is not to give your determine how best to support your :

ESP

i-Ready Personalized Instruction: *i-Ready Personalized Instruction* provides students with lessons based on their individual skill level and needs, so your student can learn at a pace that is just right for them. These lessons are fun and interactive to keep your student engaged as they learn.



- Module 3: Making Use of iReady Diagnostic Data to Plan Instruction
 - About Module 3
 - How can teachers maximize Personal Instruction?
 - What information is on the Prerequisite Report?
 - How can I address "unfinished learning" ?
 - What are Comprehension Checks?
 - How do I find or create Comprehension Checks?

- Module 4: What's new with iReady and Ready Classroom Math?
 - What new resources are available?
 - Where can I find other supports?

- Getting Started with Ready Classroom
 - About this module-3
 - Getting to know Ready Classroom Mathematics
 - How do I make sense of the Teacher Dashboard?

Questioning
Effective teachers of mathematics respond to most student answers with "why?", "how do you know that?", or "can you explain your thinking?"
Cumulative review
Effective teachers of mathematics conduct daily cumulative review of critical and prerequisite skills and concepts at the beginning of every lesson.
Sense making rather than proceduralizing
Effective teachers of mathematics elicit, value, and celebrate alternative approaches to solving mathematics problems so that students are taught that mathematics is a sense-making process for understanding why and not memorizing the right procedure to get the one right answer.
Multiple representations of concept
Effective teachers of mathematics provide multiple representations – for example, models, diagrams, number lines, tables and graphs, as well as symbols – of all mathematical work to support the visualization of skills and concepts. Teachers makes use of the Concrete-Representational-Abstract approach to teach for conceptual understanding.
Rich, varied, accessible math language
Effective teachers of mathematics create language-rich classrooms that emphasize terminology, vocabulary, explanations and solutions and use techniques like word walls, frayer models, math notebooks and anchor charts to make math language accessible.
Develop and support number sense
Effective teachers of mathematics take every opportunity to develop number sense by asking for, and justifying, estimates, mental calculations and equivalent forms of numbers.
Embed real-world contexts throughout
Effective teachers of mathematics embed the mathematical content they are teaching in contexts to connect the mathematics to the real world (first to familiar situations, later asking students to transfer to unfamiliar situations).
Daily formative assessment and instructional responsiveness
Effective teachers of mathematics devote the last five minutes of every lesson to some form of formative assessments, for example, an exit slip, to assess the degree to which the lesson's objective was accomplished (adjustment of learning targets and scaffolding for individuals and groups).

Instruction: Multiplicative Reasoning in Grade 3

Five students demonstrate their multiplicative reasoning, May 2020

Discussion > 3rd Grade Math > Multiplication

May 15, 2020

Multiplication

Share

Actions

10 responses • 115 views • 0 comments • 2.3 hours of engagement

Amazing mathematicians!! I need your help! Next year I want to show my new 3rd graders how to multiply using all of these strategies that we have learned. Please solve at least one of the following problems using your favorite strategy. Remember to speak clearly and to use your math expert words.

3×8 9×7 17×7 56×5

(ps don't write on anyone's car)

Join Code: [525e6c50](#)



Instruction: Middle and High School

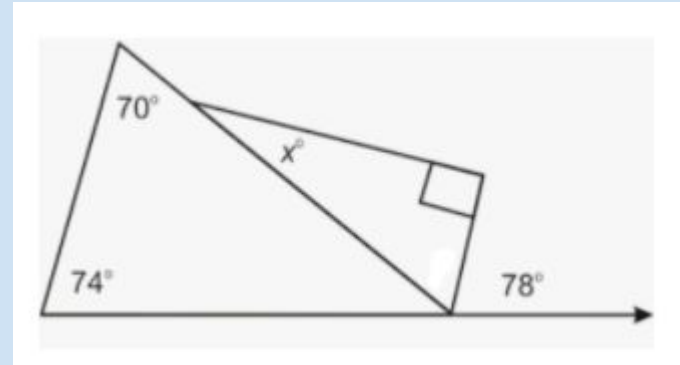
[Data Chats in Middle School](#)

"For me, the goal of data chats is for students to understand their strengths and weaknesses as math learner and to really begin to own that learning."

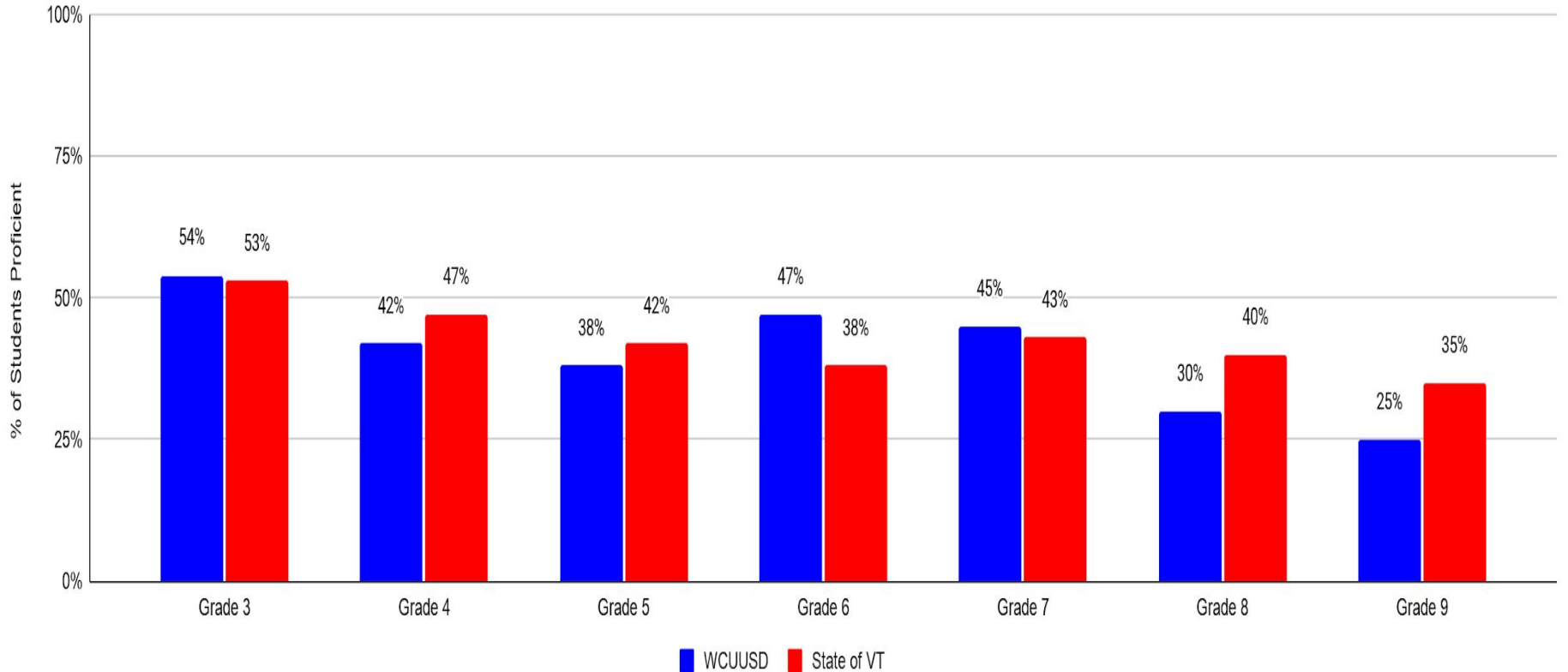
"...I review with the student the results of the diagnostic in each of the 4 math domains and ask them to identify their strengths and needs. 'Based on the results you see, which domains are strengths? Which are areas for growth?'"

Sample Student Assignments in High School

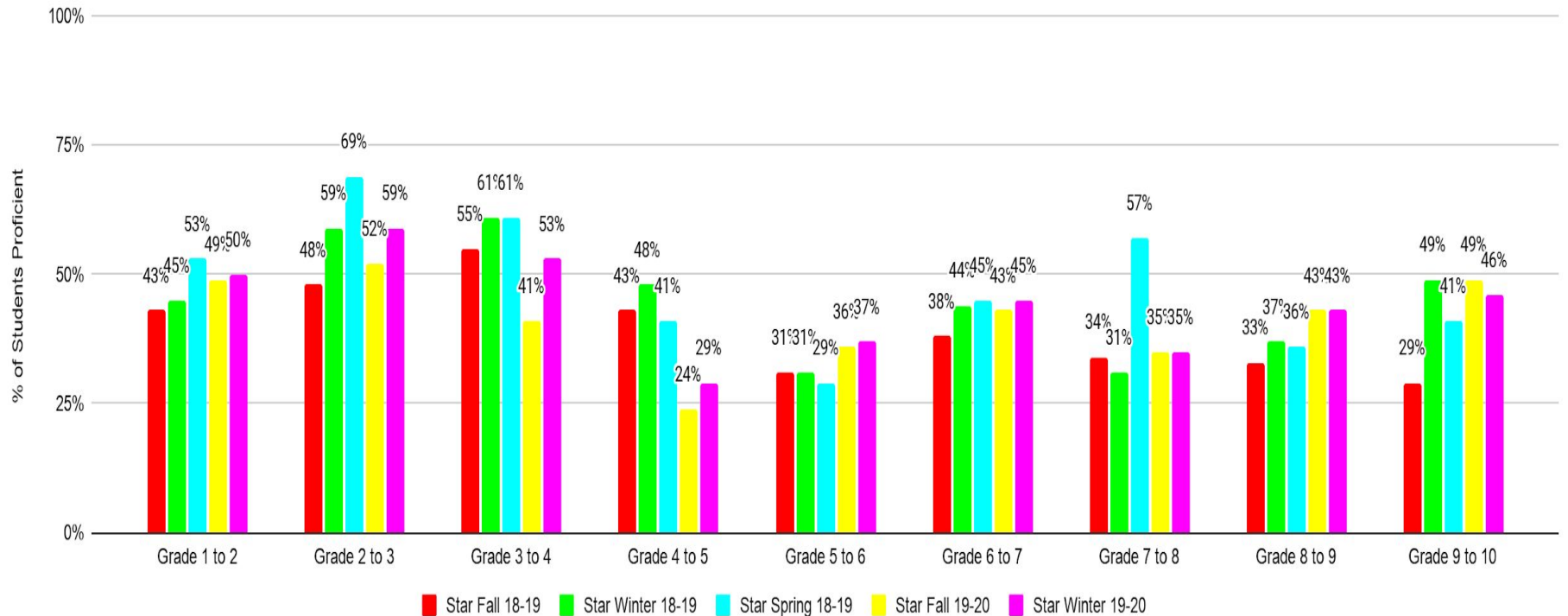
- [Geometry Summative Assessment](#)
- [Geometry Summative Assessment Part 2](#)
- [Proficiency Scale for Geometry: Congruence in Rigid Motions](#)
- [Algebra II Applied Summative Task](#)
- [Algebra II Summative Assessment](#)



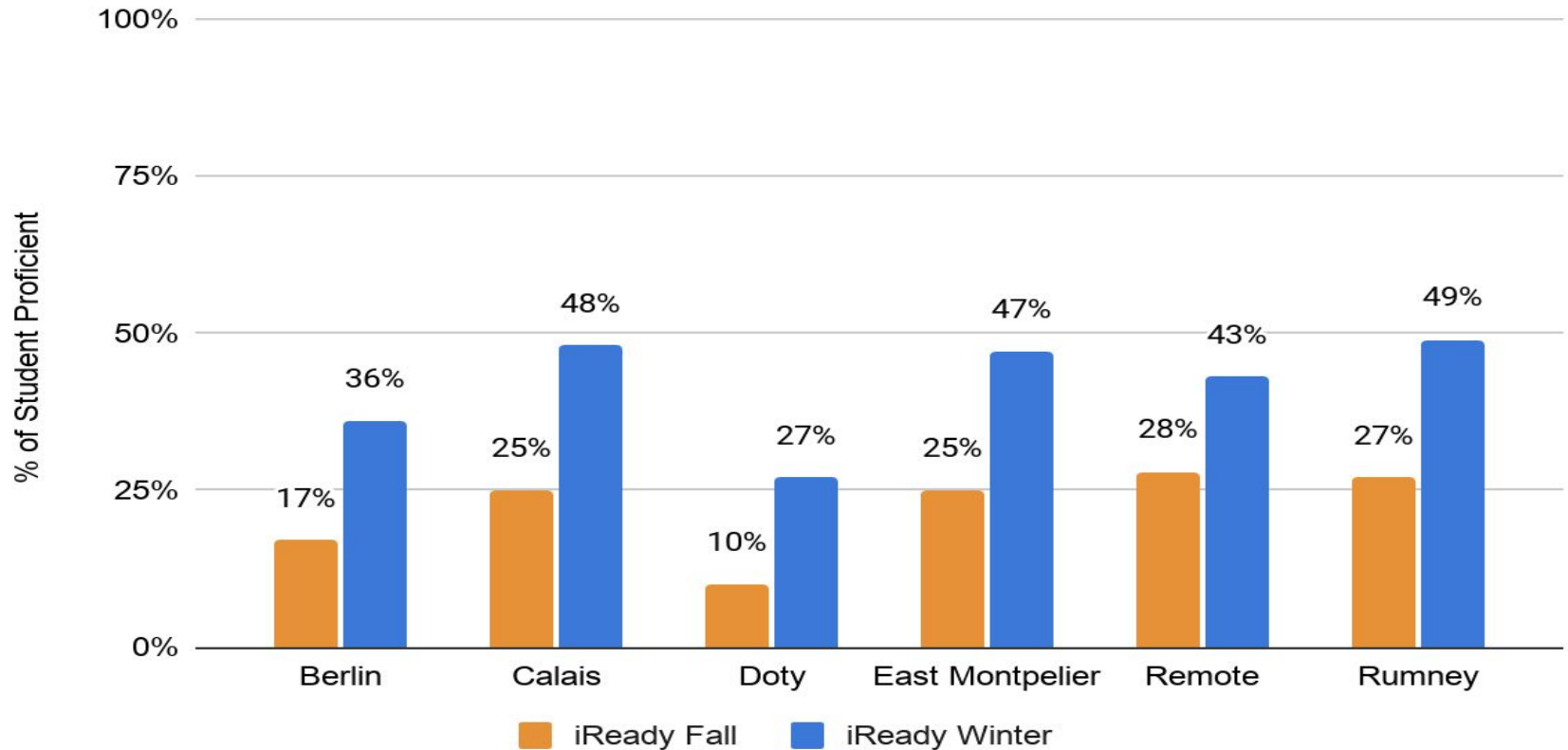
Assessment Data: SBAC WCUUSD Compared to VT, 2018-19



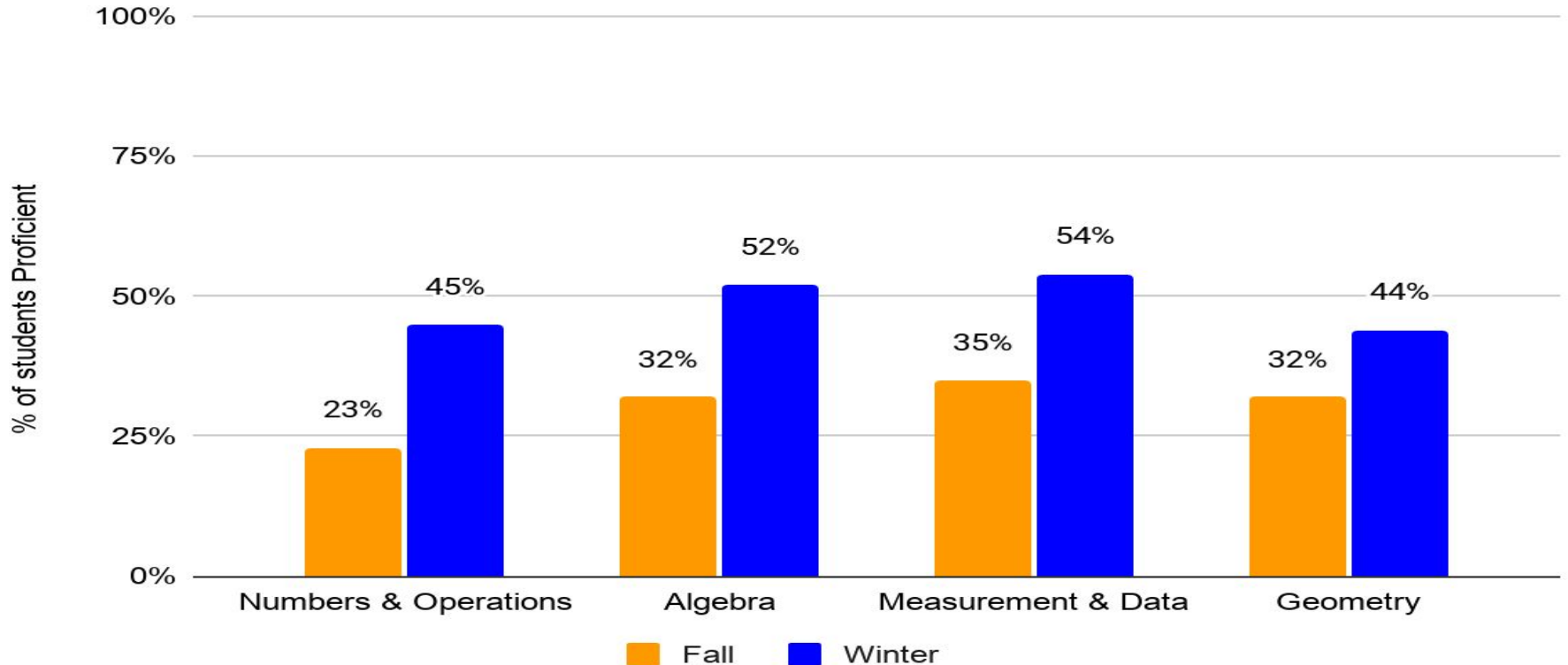
Assessment Data: STAR 360 2018-19 and 2019-2020



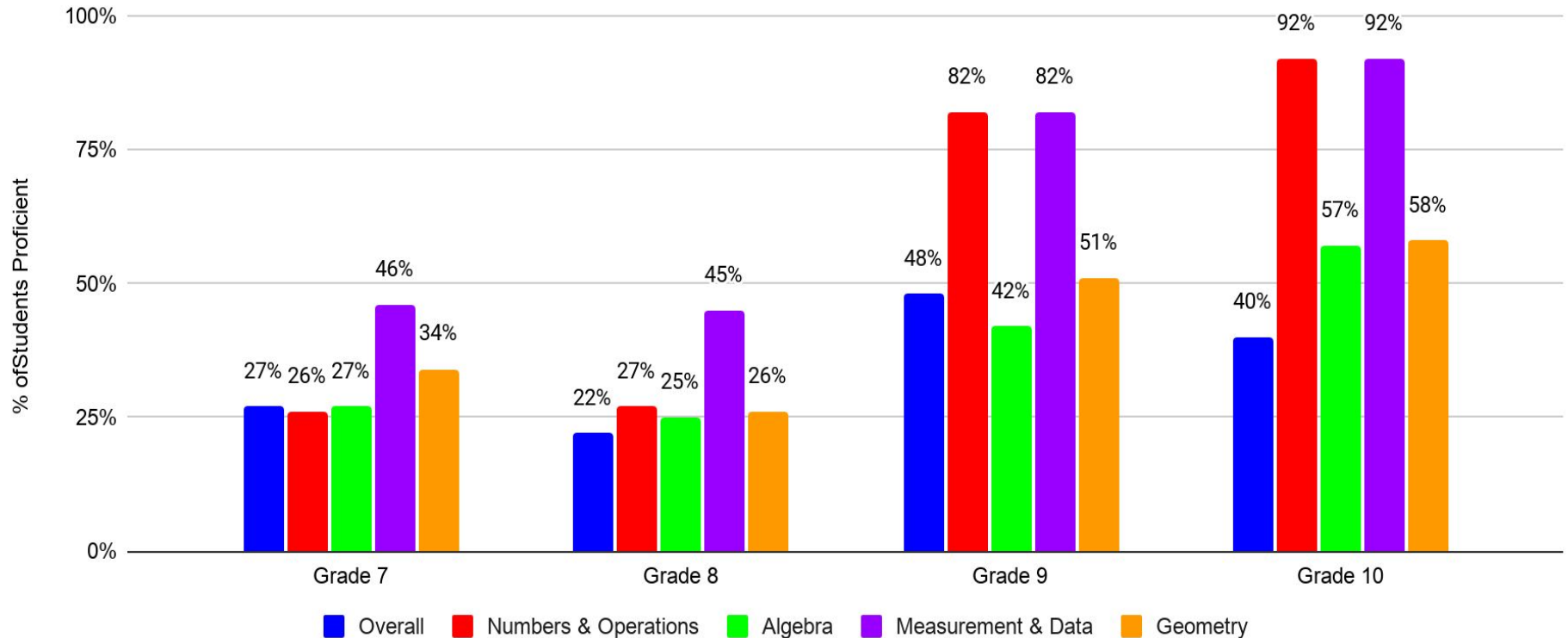
Assessment Data: i-Ready Elementary Diagnostic Fall 2020 and Winter 2021



Assessment Data: i-Ready Elementary Diagnostic Fall 2020 and Winter 2021 by Domains



Assessment Data: i-Ready Middle/High School Diagnostic Fall 2020



Assessment Data: i-Ready Growth Winter 2021

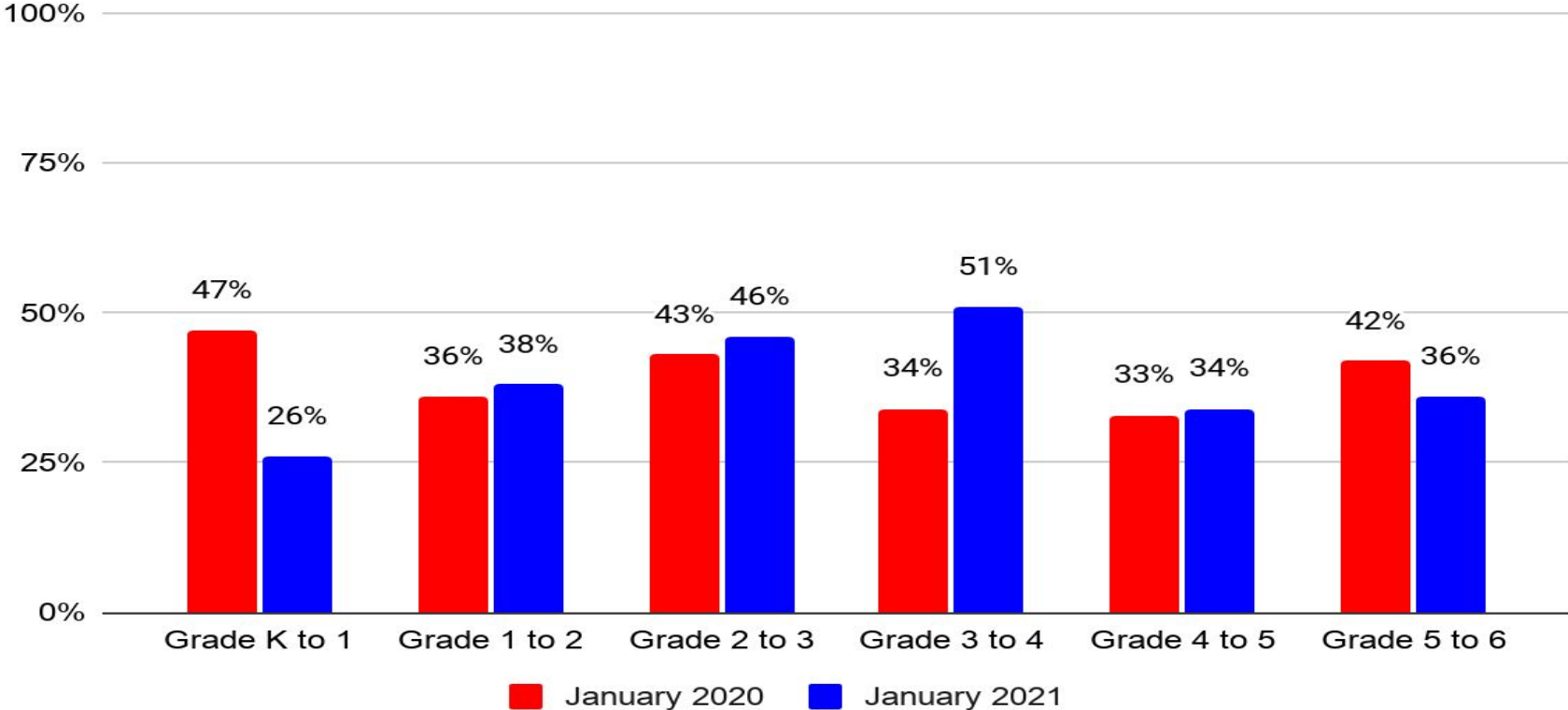
Grade	Annual Typical Growth ⓘ		Annual Stretch Growth ⓘ	
	Progress (Median) ⌵	% Met ⌵	Progress (Median) ⌵	% Met ⌵
Grade K	61%	23%	45%	5%
Grade 1	62%	19%	45%	3%
Grade 2	69%	26%	46%	7%
Grade 3	59%	18%	43%	3%
Grade 4	61%	26%	38%	11%
Grade 5	67%	31%	38%	8%
Grade 6	93%	43%	45%	16%
Grade 7	–	–	–	–
Grade 8	–	–	–	–

Assessment Data: Scholastic Aptitude Test (SAT) U-32 Compared to VT and USA

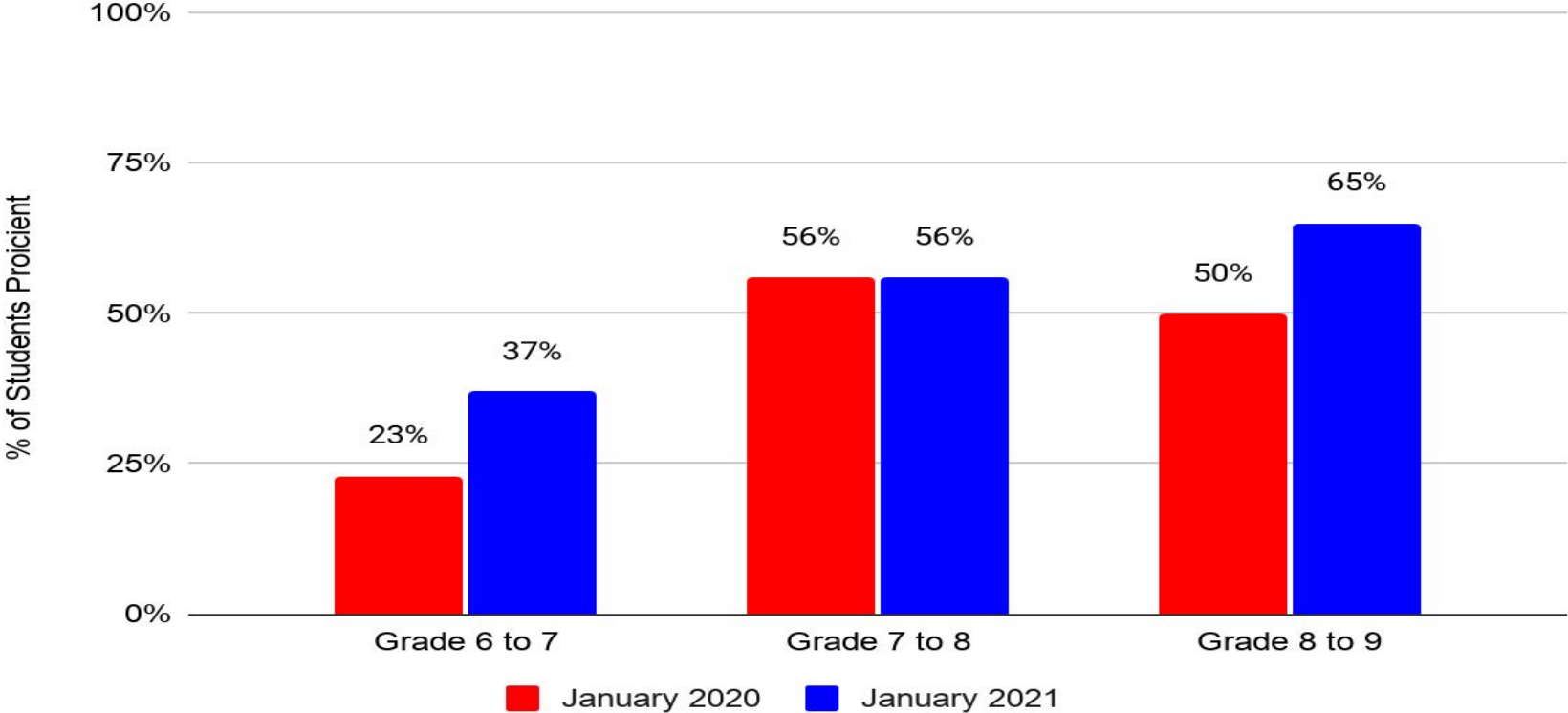
SAT Scores / Math

Year	U-32	Vt Average	US Average
2018	557	554	527
2019	566	549	528
2020	543	545	523

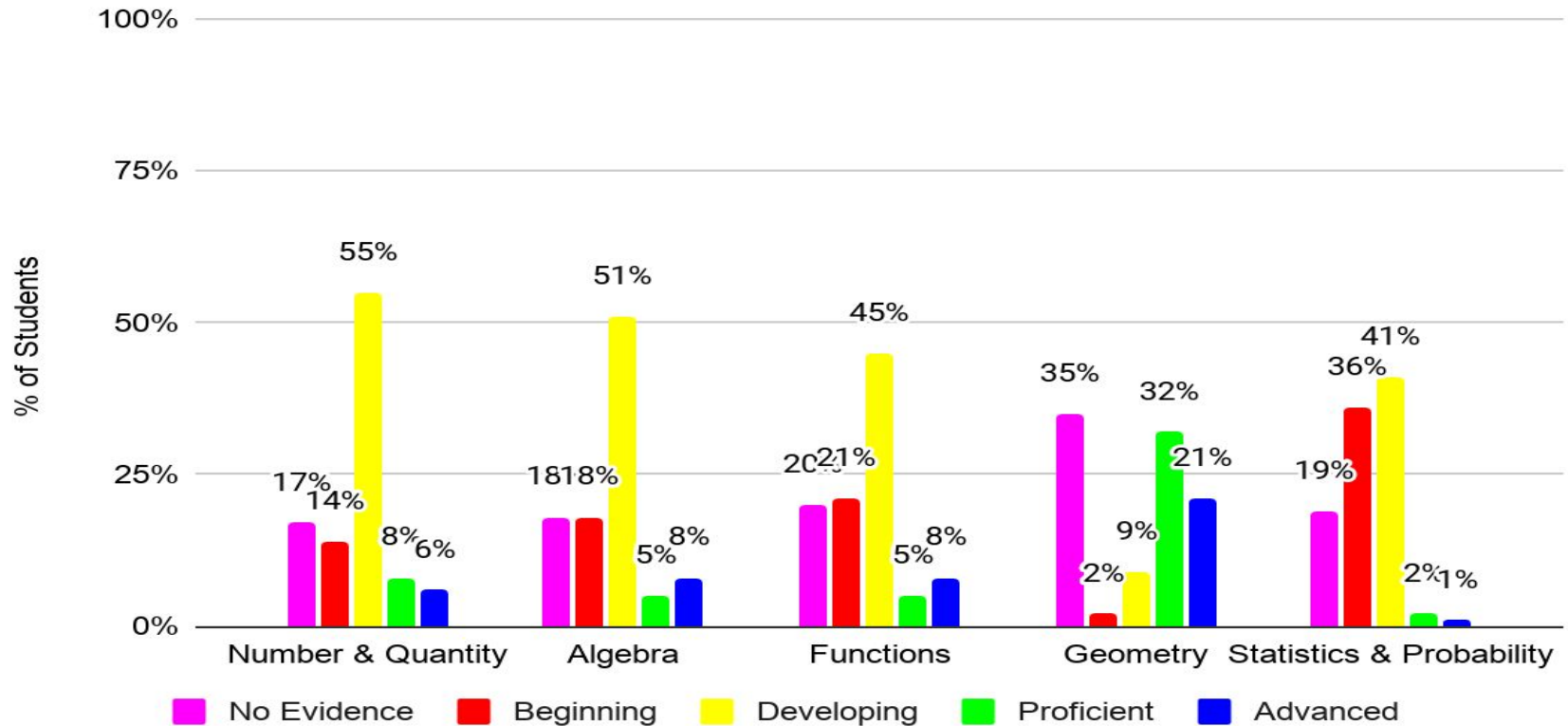
WCUUSD Elementary Report Card Data January 2020 Compared to January 2021



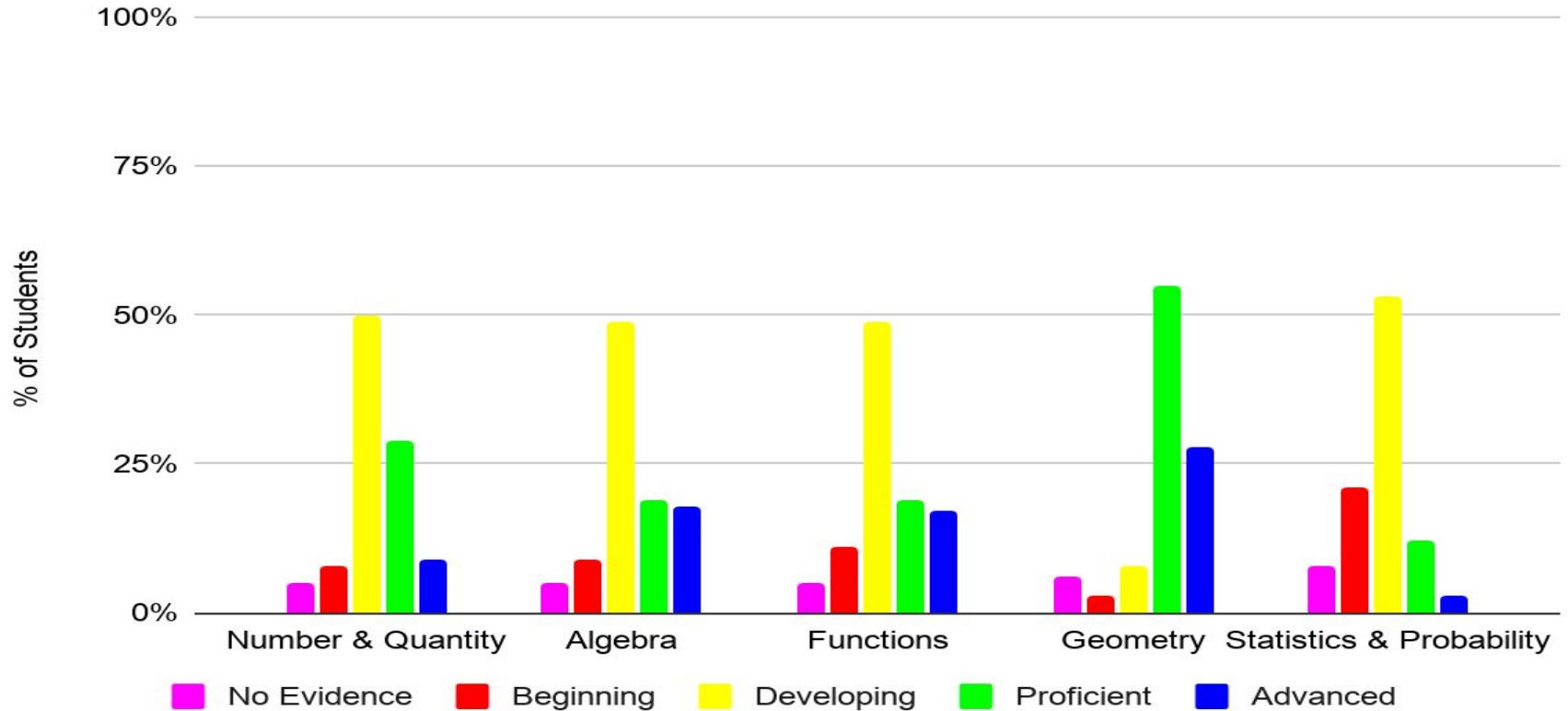
WCUUSD Middle School Report Card Data January 2020 compared to January 2021



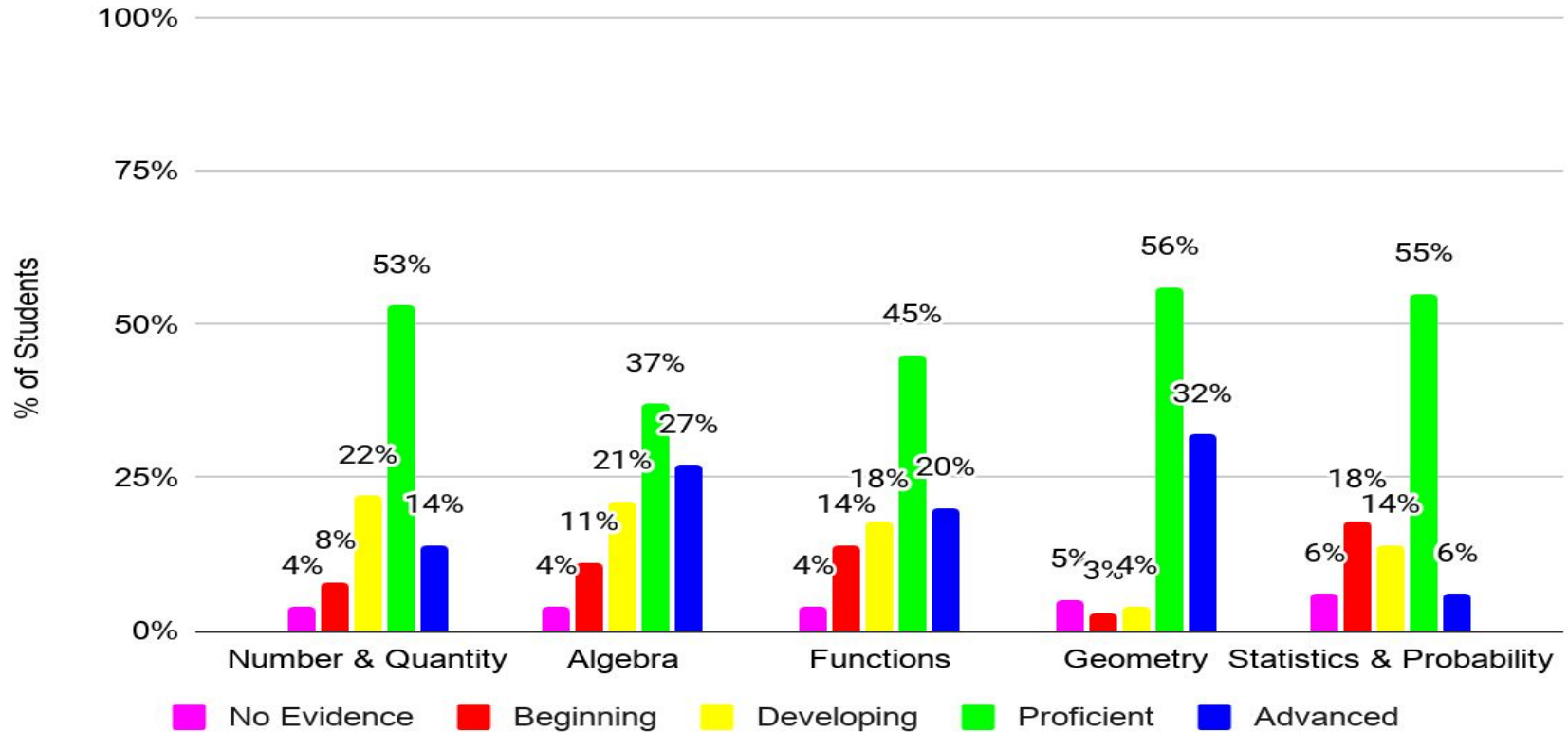
Assessment Data: PBGR's for Current Grade 10 June 2020 (End of 9th Grade)



Assessment Data: PBGR's for Current Grade 11 June 2020 (End of 10th Grade)



Assessment Data: PBGR's for Current Grade 12 June 2020 (End of 11th Grade)



High School Math Awards, June 2020

[High School Awards Ceremony
June 2020](#) (23:40-26:27)

[Senior Awards Ceremony June
2020](#) (16:48-22:51)



The screenshot shows the MAA (Mathematical Association of America) website. The header includes the MAA logo and navigation links: LOGIN, JOIN, SHOP, GIVE. The main navigation bar lists: About MAA, Membership, MAA Publications, Meetings, Competitions, Programs and Communities, and News. The page content is titled 'About AMC' and includes a section for 'MAA American Mathematics Competitions' with a brief description of the program's goals and impact.

The banner features the University of Vermont logo (a green square with a white building icon) and the text 'The University of Vermont' in green. Below this is a white box with a 'MENU' button and the text 'VERMONT HIGH SCHOOL PRIZE EXAMINATION' in green.

U-32 Math Team

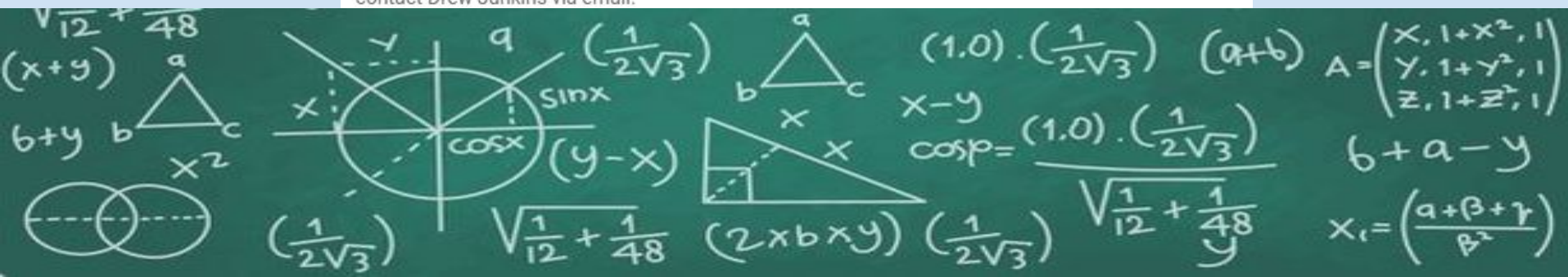
U-32 Newsletter, January 18, 2021

The U-32 Math Team Breaking School Records!

For the first time in school history our Math team scored a PERFECT SCORE on the Team Test. The members that participated in the test were Kayl Humke, Jacob McCoy, Alec Benedict, Evan Elliot, and Alex Saunders. These students displayed great collaboration and efficiency in their math work.

This year Math team is where our team competes with other Math Teams around the state in the Greater Burlington Math League. Students take up to 3 tests to see how high they can score on different math topics. For each topic the top 3 scores for each team are added up and count towards the overall team score.

It is not too late to join the team. We still have two meets left. If you are interested in joining please contact Drew Junkins via email.



School Board Role

- Support for early intervention
- Support for extended learning opportunities
- Cultivate a culture that affirms that math is universal
- What else?

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WASHINGTON CENTRAL
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Modified Making Meaning Protocol

In rounds:

- What did you see?
- What questions did this presentation raise for you?
- What struck you as significant?
- What are the implications for our work?



Next Steps and Debrief

- How will we share this work with the full board?
- What worked about this process?
- What might we change for next month's SLO presentation?

What struck you as significant?

Education Quality Committee, 2-3-21



What are the implications for our work?

Education Quality Committee, 2-3-21

