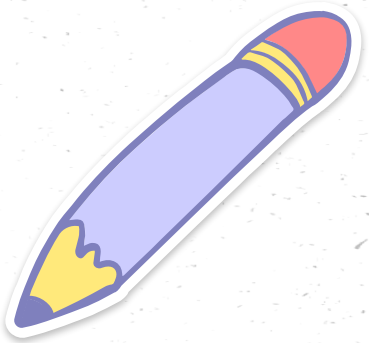


Numeracy

Good News

February 23, 2022

"Northern Lights Public Schools is committed to building a culture of numeracy, empowering learners, teachers and leaders to collectively shift their practice, giving meaning to mathematics as they improve numeracy skills and understanding of all students. This priority was established by the Board after extensive consultation with students, parents and staff."

NLPS Three-Year Plan

01

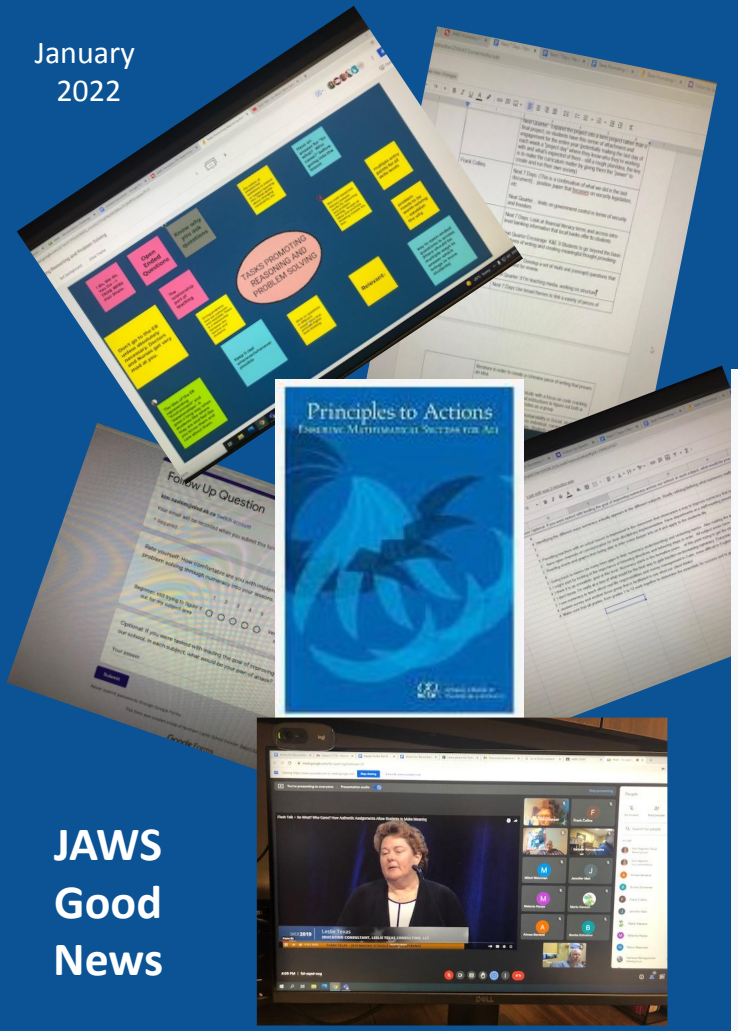
J.A. Williams High School

Lac La Biche

January
2022

JAWS Good News

COVID can't stop us at JAWS! Teachers have been working through Numeracy PD throughout the year. We collaborate, share ideas and focus on student success. Here we are *meeting virtually* to collaborate on tasks that promote reasoning and problem solving through numeracy across curriculums. This activity gave us some great data to point us in new directions!

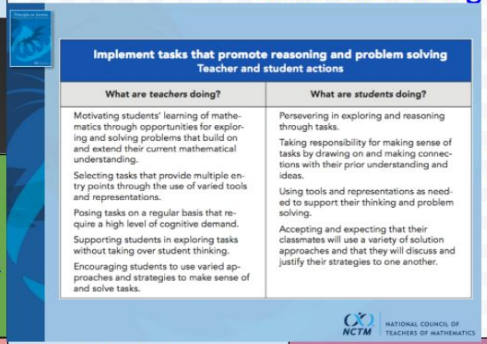


Implement Tasks that Promote Reasoning and Problem Solving

1. Explore
Watch the Prezi.
Double click to play and enlarge.

2. Engage
Watch the 2 videos in red. Then…

Type on this Jamboard with any new learnings you choose to share.



What is your prior knowledge about this?

What areas of growth do you see for yourself and your staff in implementing tasks that promote reasoning and problem solving?

4. Evaluate
Example of IC Map
Implement Tasks that Promote Reasoning & Problem Solving IC Map

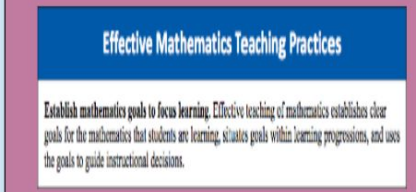
5. Self-Assess
Complete the Google Form to assess your level of understanding of this concept.
Follow Up Questions

3.Discuss
Share a lesson that promoted reasoning and problem solving in your class

Lesson Sharing

Resources/Extensions

- NCTM Website
- Principles to Actions
- Varied Entry Points
- Effective Math Tasks Video
- Flash Talk – So What? Who Cares? How Authentic Assignments Allow Students to Make Meaning
- Worthwhile Tasks
- Teachers and Students



Share in the Google Doc what your next steps or plan will be within the next 7 days? Next Quarter?

Next 7 Days / Next Quarter

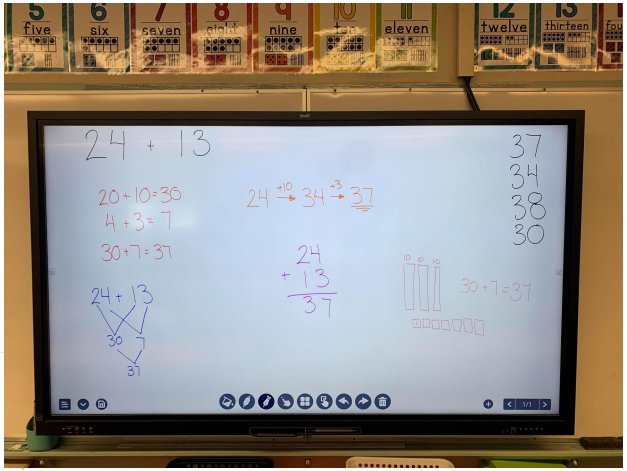
02

North Star Elementary

Cold Lake

Number Talks

Grade 2 students at North Star are working on mental math strategies through number talks! Students are investigating a variety of strategies that they understand to achieve their answers. We enjoy learning from each other and appreciating how everyone can think and understand things in different ways!



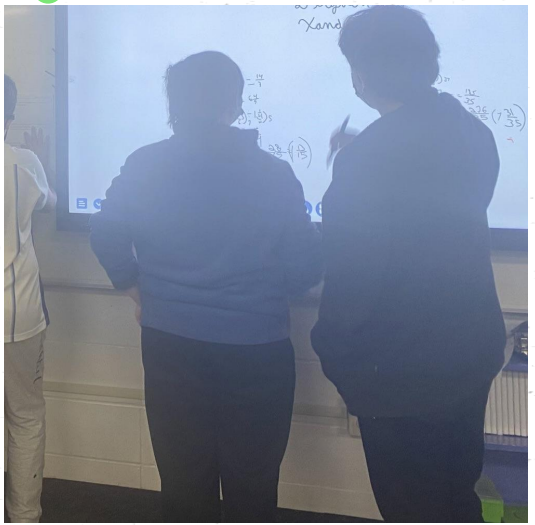
03

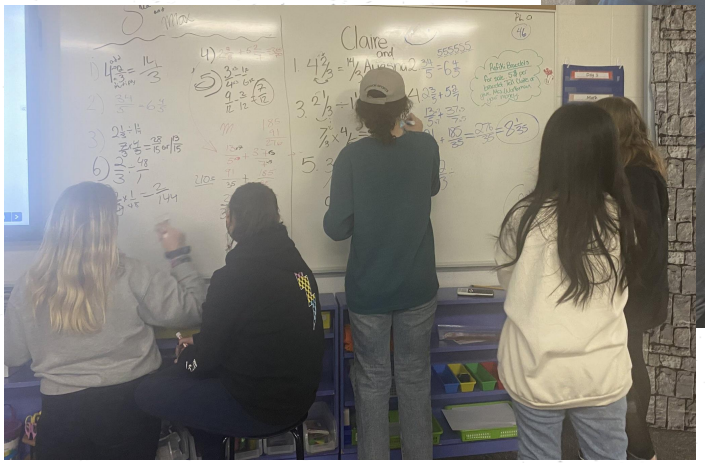
H.E. Bourgoin Middle School

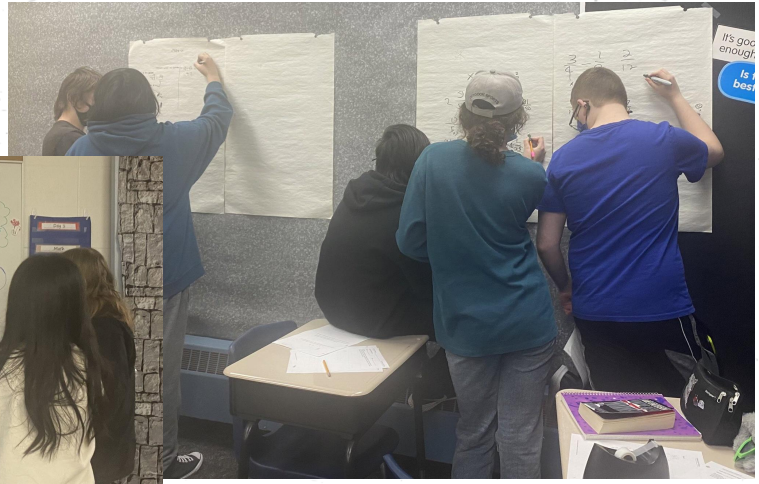
Bonnyville

Vertical Math

Ms. Murphy's Grade 8 students paired up and worked on a vertical surface to solve fraction problems at the end of their unit. It was a great way to observe students' comfort and knowledge of working with fractions. There was lots of engagement and rich math conversations!





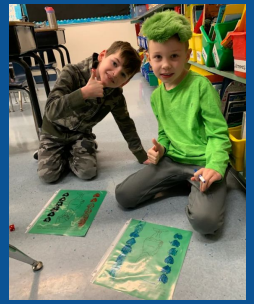


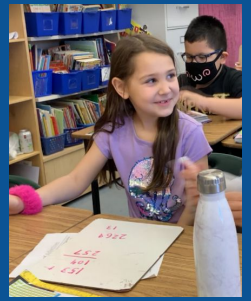
04

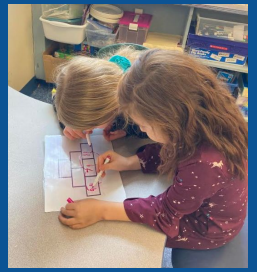
Vera M. Welsh Elementary

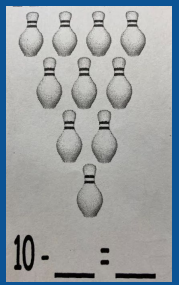
Lac La Biche

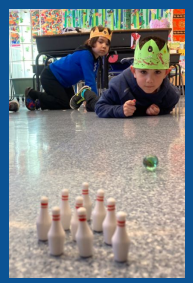
Vera M Welsh students are continuing to hone their numeracy skills through conversation and hands on activities.

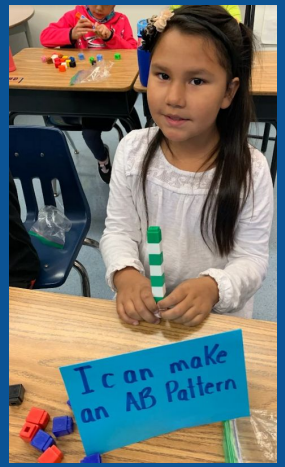


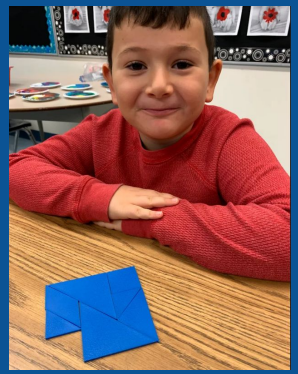












05

Cold Lake Elementary

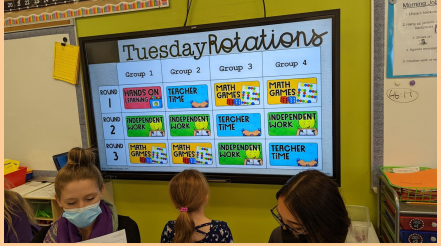
Why are CLES teachers using Daily 3 Guided Math?

- Teachers are able to meet individual student needs through differentiation
- The framework adapts to multiple curriculums at a time. Students are never “done”.
- Know your students as mathematicians and develop students’ confidence in mathematical abilities.
- Students develop independence, stamina, and accountability.
- Students enjoy the variety of scaffolded activities which increases student engagement and success. This will decrease the number of behaviors.

- With decreased EA pull out available for students, the teacher can instruct students to develop their foundational skills during a numeracy block.
- Small group and Individual face to face instruction improves student achievement. Use of manipulatives is much more manageable.
- This is a strategy you can put in your IPP for math goals.

What does Daily 3 Guided Math look like?

Students select from up to **three choices** or the teacher has the students follow a sequence of rotations, working independently toward personalized goals or working with a partner, while the **teacher meets individual needs through whole-group and small-group instruction, as well as one-on-one instruction or conferring.**



Students have possible choices/ rotations such as:

- Math by Myself
- Math with Technology
- Math Writing
- Math with Someone

Teacher

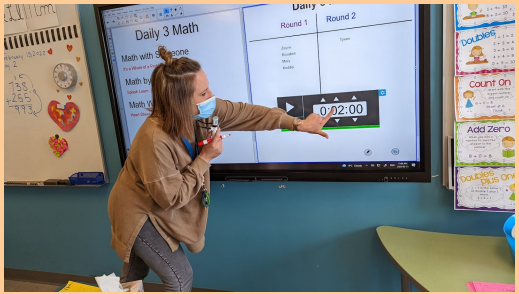
- Instructs whole class and small group mini-lessons
- Meets with small groups
- Instructs or confers with individual students

Daily 3 Guided Math at CLES

Mr. Varughese (our Inclusive Education Specialist) presented the CLES staff with PD on Daily 3 Guided Math.

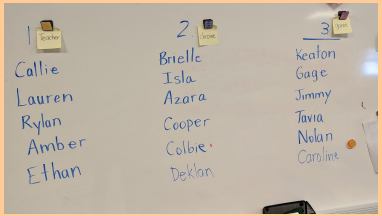
Through peer coaching, teachers worked elbow-to-elbow with Mr.Varughese to implement Daily 3 Math into their classrooms. NLPS learning coach Suzanne Aessie also trained staff.

We created a Google Drive for Staff to use and add to for their Daily 3 lessons.



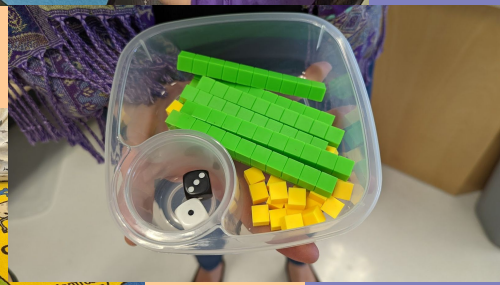
Ms. Krista McMillan – Grade 2

“I was pretty nervous to try Daily 3. I thought it was going to be way more prep work and organizing than it actually was. Nathan Varughese came in to help me set it up and once I saw it in action it made so much more sense. I love having the time to sit and work with students on Math that is at their ability. It is much more meaningful and I don’t feel like I am running around trying to help so many kids, and really not getting much accomplished. I am able to teach organizational skills to students that need it, which helps with skills like subitizing, that make the more difficult Math easier. I feel like I can teach tougher concepts with more success because I have the children’s full attention. The other children are engaged and working on tasks that they can perform with confidence. This will help them in math all around by becoming better at facts and fluency, and they all enjoy math so much more and look forward to it!”



Ms. Amber Charland – Grade 2

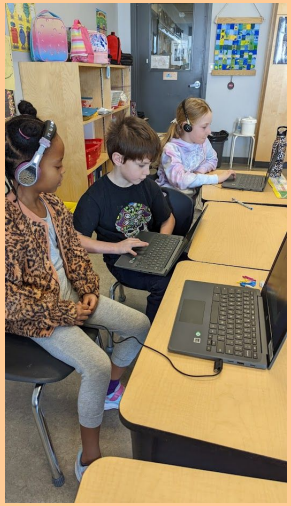
“With Daily 3 (guided math) I feel like I am able to meet the learning needs of all of my children. It allows me to be more engaged in their individual learning as well as allows me to actively assess how they are doing throughout each concept. One way that I do this is by having a stack of sticky notes at my small group table and writing down a few notes about each student as they are rotating to their next centre. I love the flexibility that comes with guided math and the ability to use a variety of learning centres that are reflective of their interests and learning styles.”

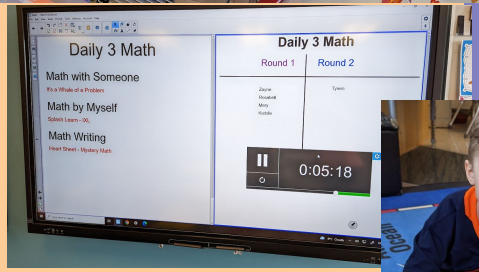


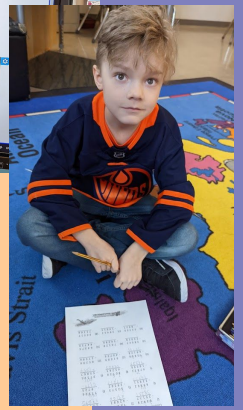
Mrs. Chantelle Wheeler – Grade 3

“Daily 3 has brought excitement and a true love of mathematics into my classroom. Students are able to work on their personalized goals while I get to work with small groups or one-on-one conferring with students. I feel like I am better able to meet the needs of each of my students.”

It makes math fun for me! R.B.
(Student in Grade 3W)







06

Caslan School

Grade ½ Math

The Grade ½ students in Ms. Giacobbo's class have been exploring with standard and non-standard measurement.

07

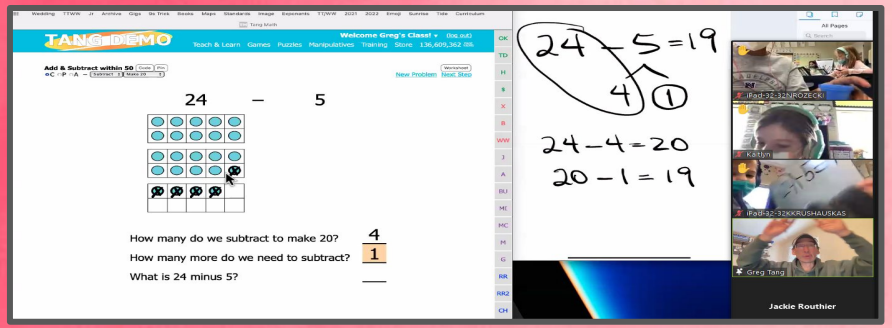
Learning Together Anywhere

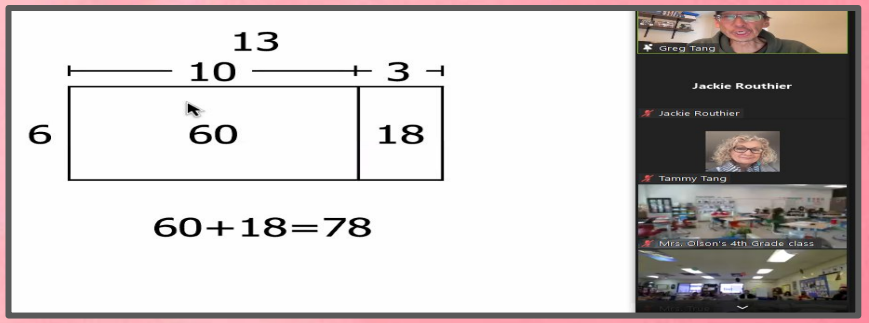
GOOD NEWS

9th EDITION

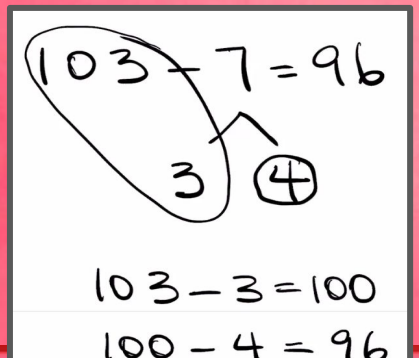
February 2022

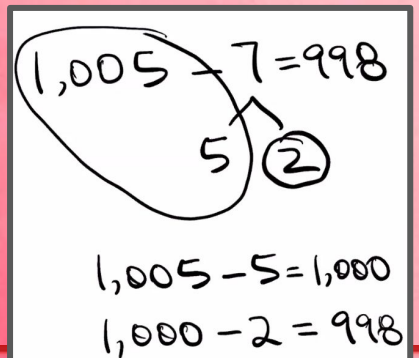
Tang Math Sessions on Zoom



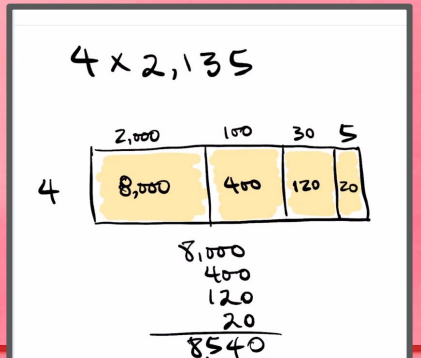


Subitizing & Number Bonds





Area Model Multiplication



08

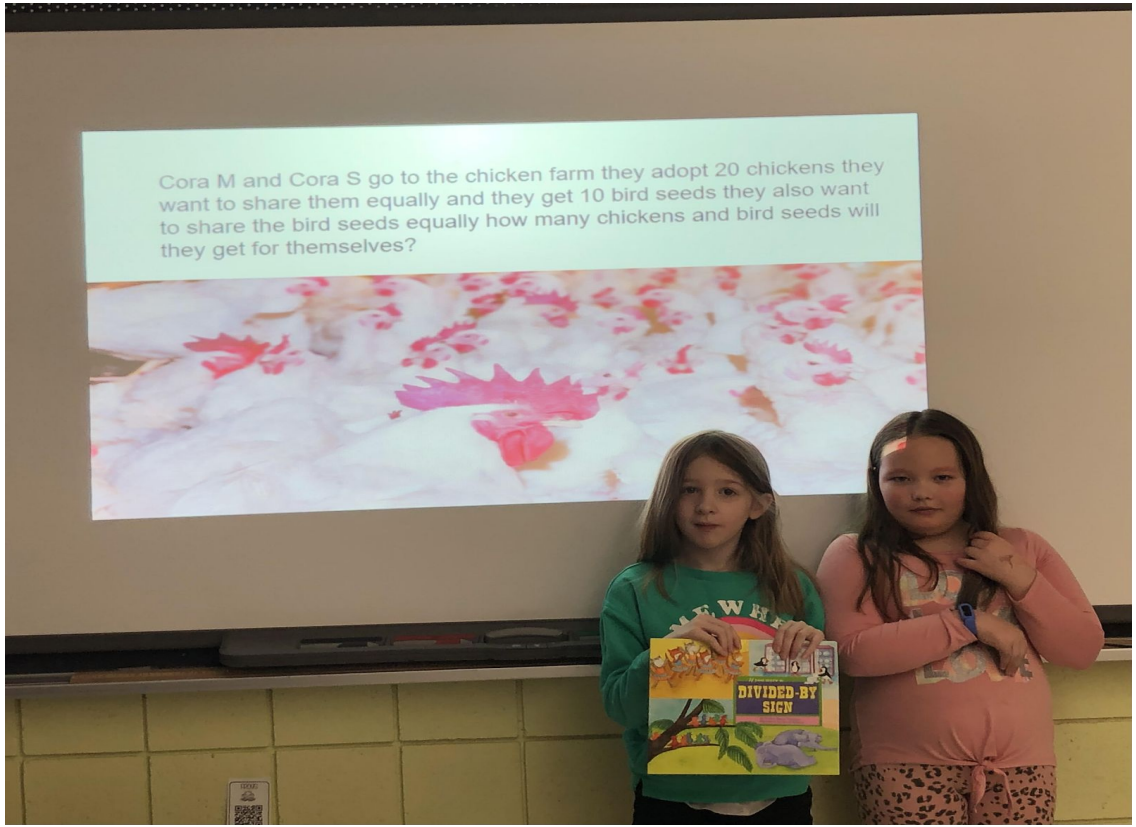
Art Smith Aviation Academy

Cold Lake

Grade 3 making their own real life word problems

(N.1.12.b creating and solving problems in context that involve equal sharing and equal grouping)

ASAA students are writing and then solving problems as a class. Mrs. Mudge read *Divided-by Sign*, by Trisha Speed Shaskan to her class. After hearing the story each student wrote a problem to share with the class, everyone solved the problems as a group the next day. Here are our two Coras solving their real world chicken and feed situations.



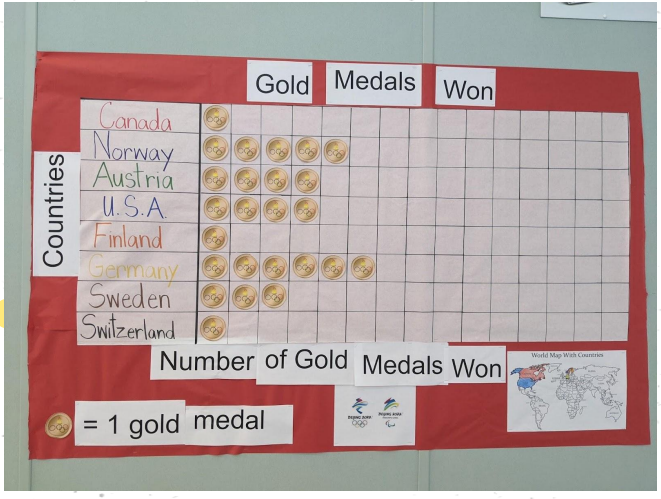
09

Duclos School

Bonnyville

Making Connections

At Duclos we are making math more visible and connecting numeracy to the real world. We have also started putting up interactive numeracy displays.



10

Kikino School

Building a Thinking Classroom in Math

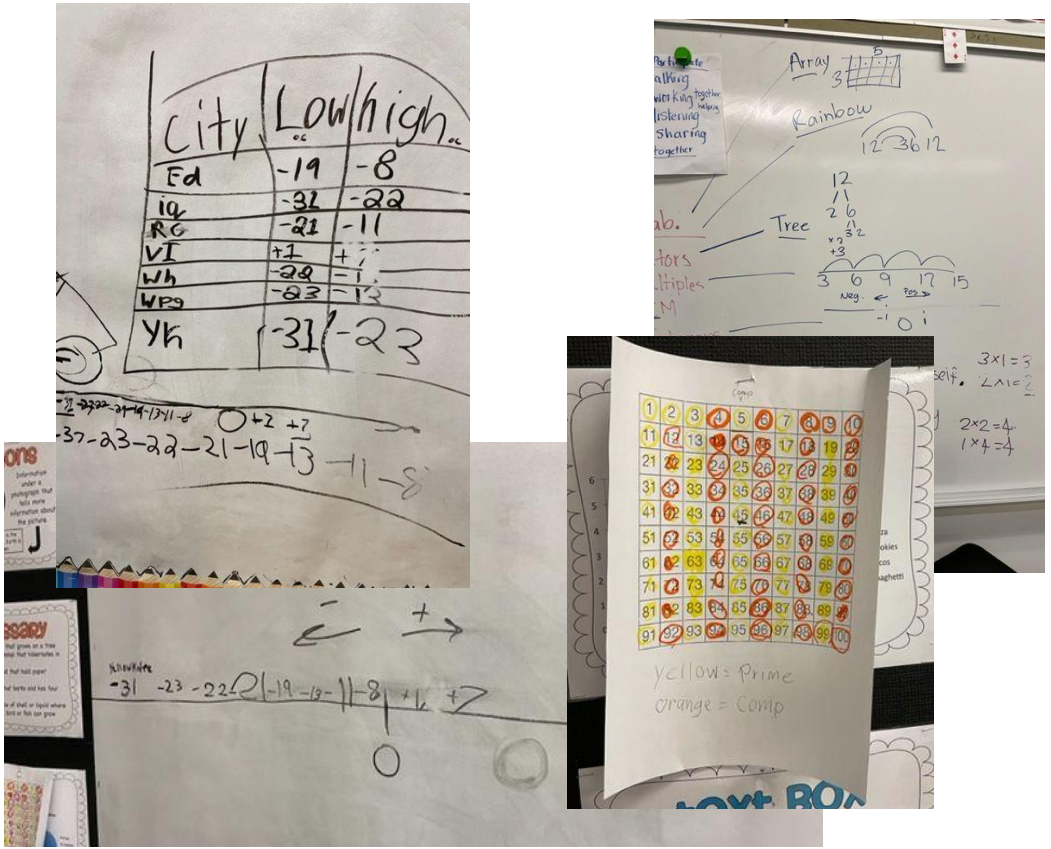
Rethinking variables that support "Thinking Classrooms."

Variable 4: Student work space!

Groups of students stand and work on vertical non-permanent surfaces including:

- White paper
- Windows
- Wipeable wall paper

This makes the world visible to the teacher and other groups.



Kikino School
Community. Culture. Home.

11

Nelson Heights Middle School

Cold Lake

Executive and Academic TRIAGE at NHS

Purpose:
Use the remaining time this year to teach the most important Executive and Academic skills needed to prepare students for next year.
Steps:

1. Grade Level Teams Identify and teach the MOST IMPORTANT Executive Skills to ensure success for their incoming group of students
2. Subject Specific Teams Identify and teach the MOST IMPORTANT Academic Skills to ensure success for their incoming group of students

Teachers take this information and PRIORITIZE teaching these skills by the end of this year to to ensure student success for next year.

Executive and Academic TRIAGE at NHS

What strategies can I use to ensure my students have the most important EXECUTIVE SKILLS covered by the end of the year.

NUMERACY:

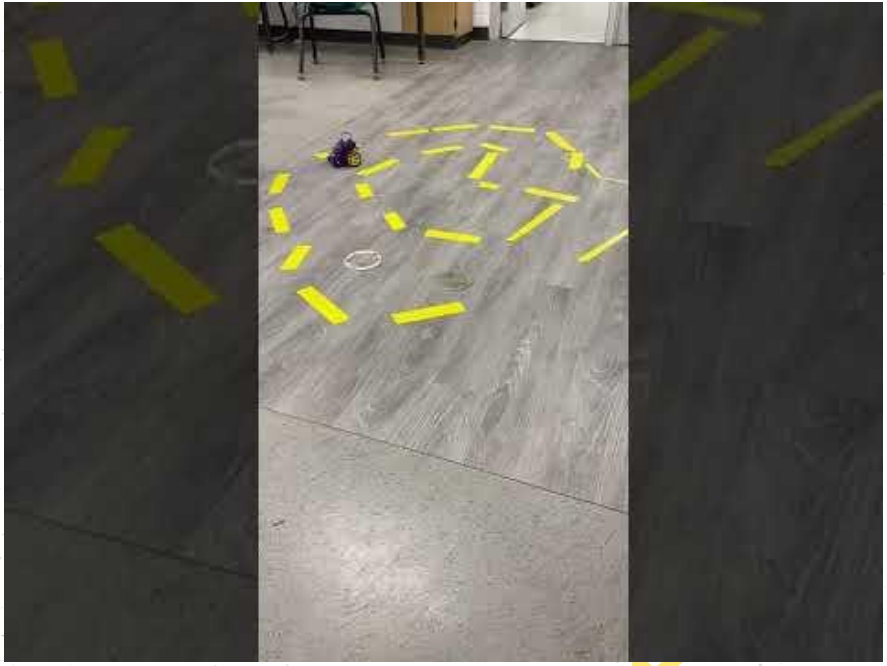
1. Ensure that my math students are fluent in their addition, subtraction, multiplication and division and can use their multiplication table for assistance.
2. Continue to refer to the curriculum to guide my instruction for the remainder of the year. Ensure I am checking to make sure that I have been assessing and building on the skills they need to be set up for success in their next school year.
3. Working on basic math skills get them up to a reasonable level while making my way through curriculum.
4. Be there for the students and try to catch the ones up that have missed a lot of time.
5. In order to support student academic development I will ensure the students understand why we are completing each assignment/project. This includes how we can connect the skills learned to other areas and situations. Ensure they have the math skills they need for Grade 7 versus focusing on the PAT.

12

Bonnyville Centralized High School

Coding in CTS shop

Students in the CTS shop have been exploring robotics with kits supplied by SKILLS Canada.



13

Glendon School

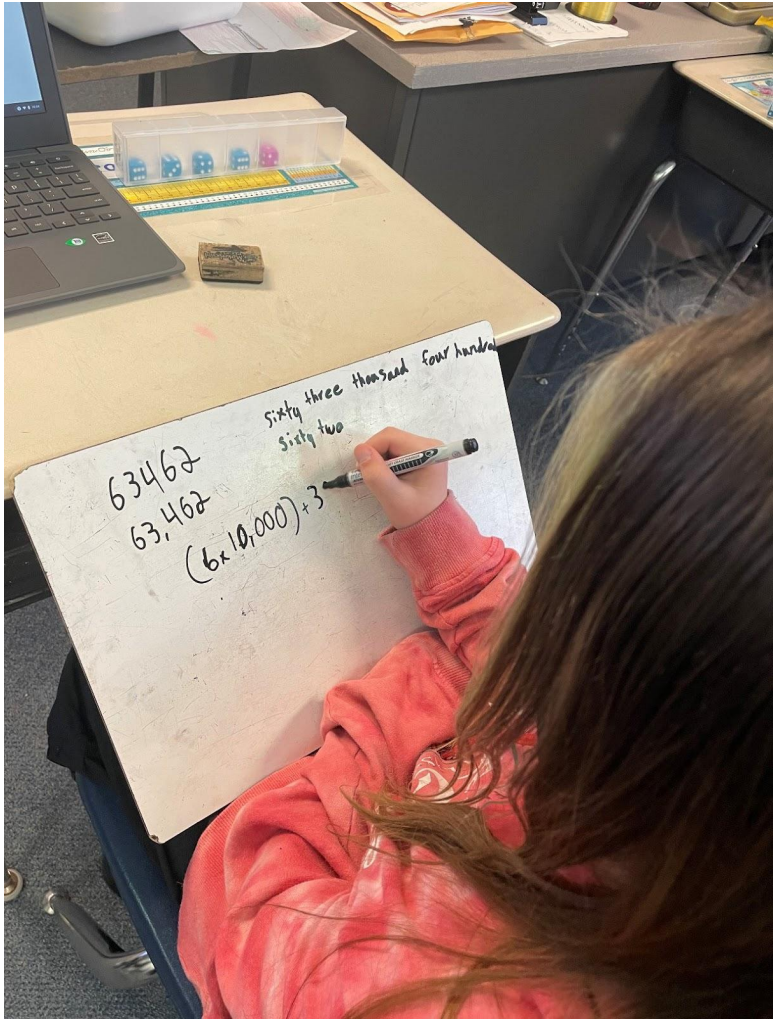
GLENDON SCHOOL

NUMERACY (Grade 4)

Making math fun with just a roll or a shake!

Students use dice as a way to bring “fun” into math lessons. They are enjoying getting to know number using dice which creates opportunities to explore various mathematical concepts in an engaging manner. These activities help to facilitate a learning environment for retention and exploring number combinations, place value, patterns, and other important mathematical concepts.

Students have fun demonstrating their thinking on white boards with their random number combinations rolled.



Thanks!

Do you have any questions?

communications@nlsd.ab.c