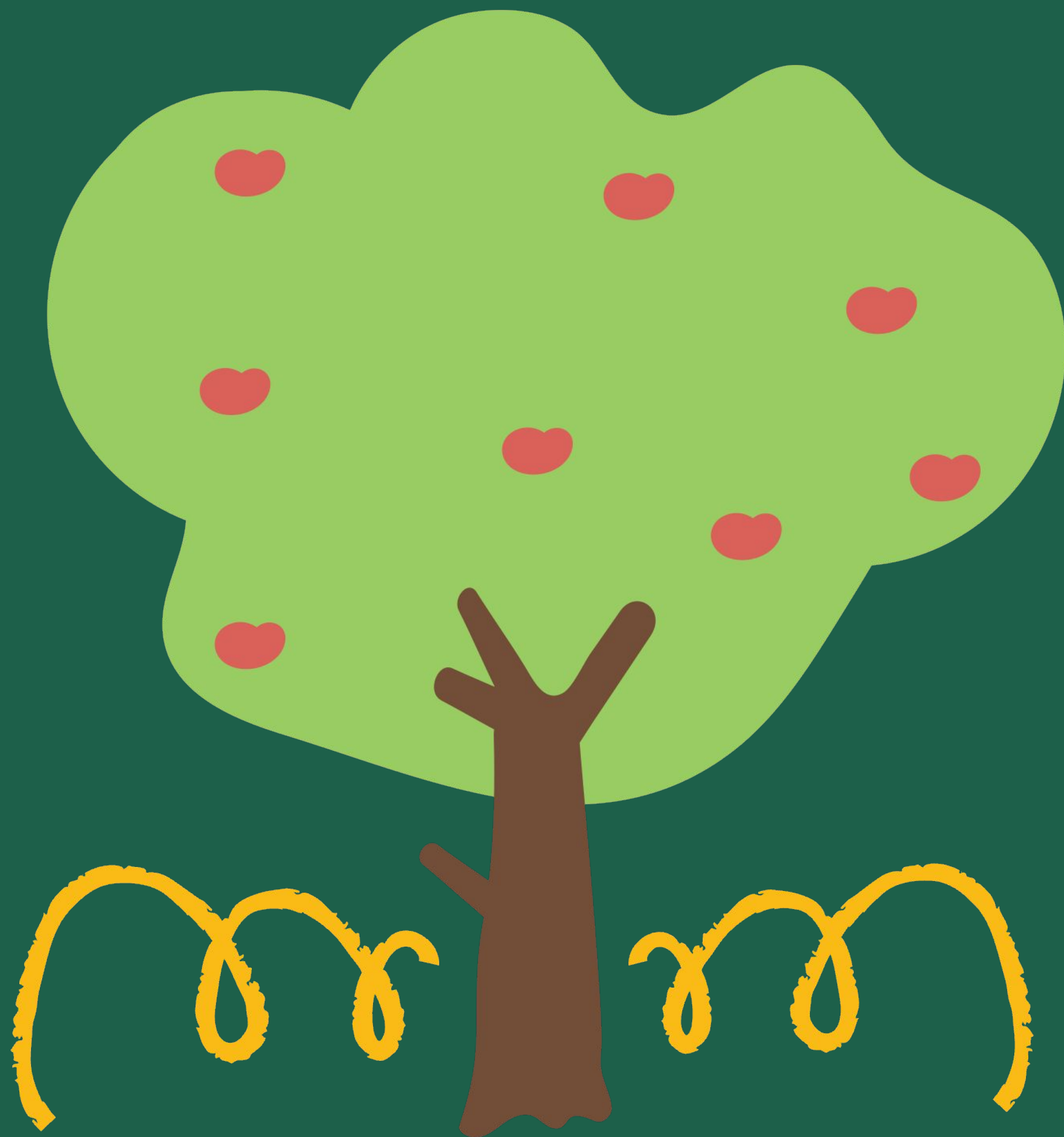


Family Friday

Mathematics





Contents

Math and IB

Curriculum

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Home Connection

IB Trait – Open Minded



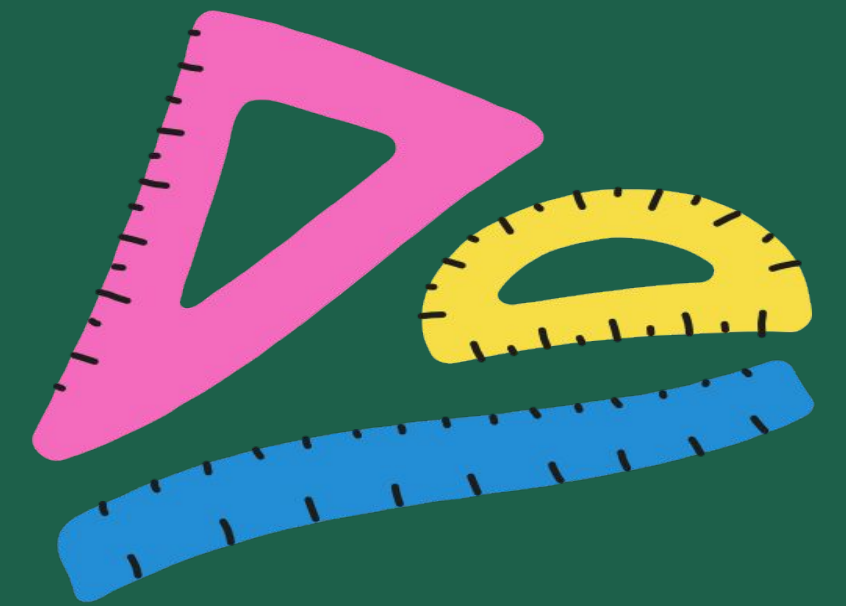
We encourage students to be open to difficult math!

Jo Boaler's research shows **up to 50% of adults** have Math Phobia

Neuroscience studies indicate that *math anxiety is driven by brain activity* in areas that are largely dissociated from the main regions known to support math learning. However, *such activity eventually interferes with the normal functioning* of brain regions that support numerical processing during math tasks.

Reducing Math Anxiety

- Fake it till you make it:
 - Remind your child **everyone** can learn math
 - Embrace that is more than one way to solve problems
 - Take control of your “inner coach” and “inner critic”
 - Come up with a powerful mantra
 - “I’ve got this!”
 - “Solving problems makes me smarter!”
- Ask questions
- Share all the ways we use math in the real world



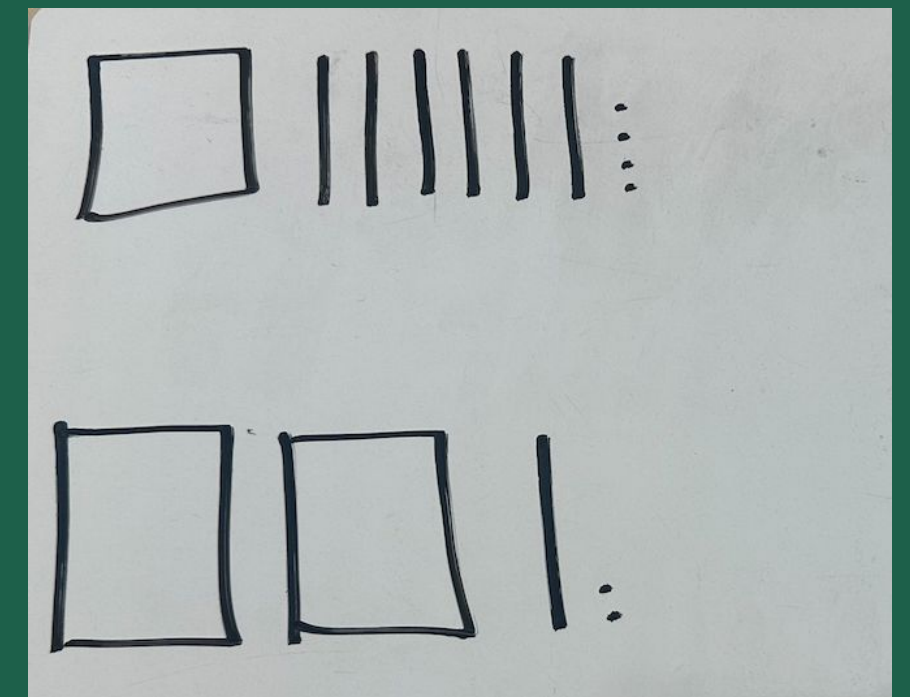
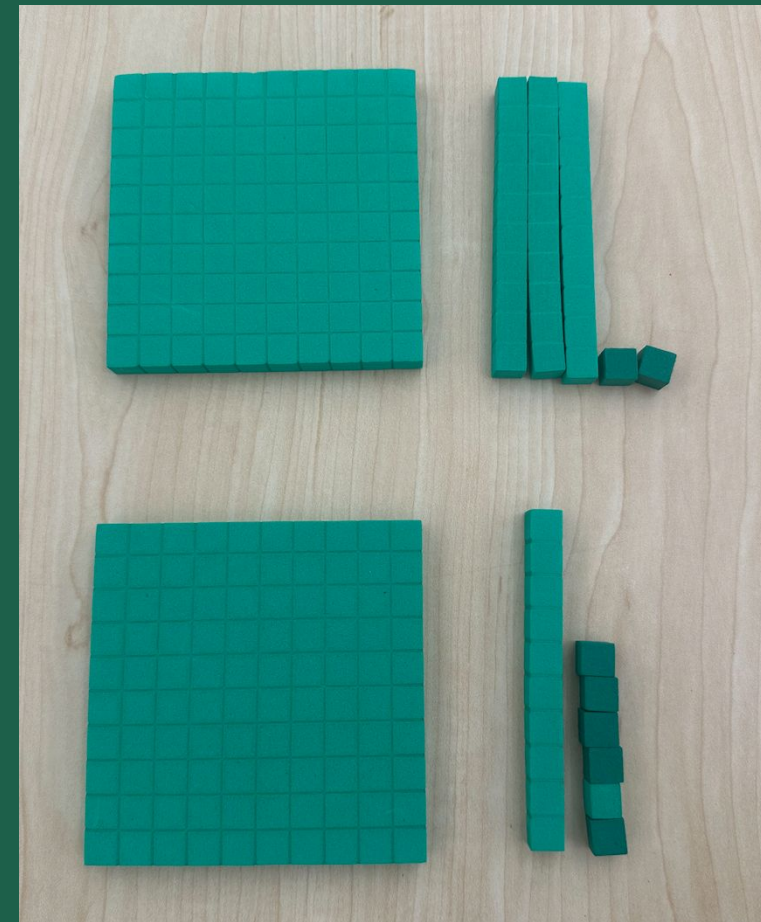
GPS Curriculum

GreenwichSchools.org - units by grade level

District Curriculum: Big Ideas Math

Instructional Approach:

The GPS Mathematics Program uses the philosophy of CPA (Concrete, Pictorial, Abstract).



$$214 + 175 = \underline{\hspace{2cm}}$$

Digital Platforms



IXL - Diagnostic assessment to provide targeted skills for practice, allows students to work on appropriate skills

Khan Academy - tool for practicing and learning skills

Smarter Balanced Assessment portal - Tool from the state of Connecticut with practice items allowing students to become familiar with the format of questions on the state assessment

Number Corner

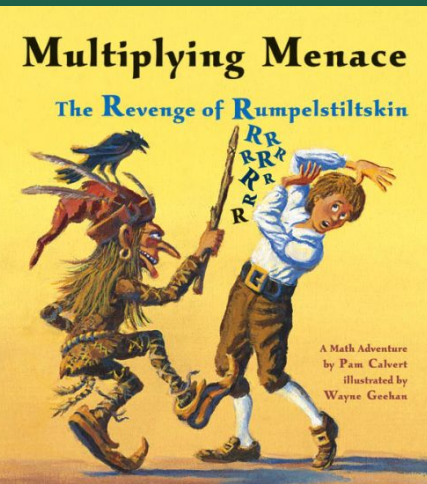


Daily Math Routine - A short 20 minutes

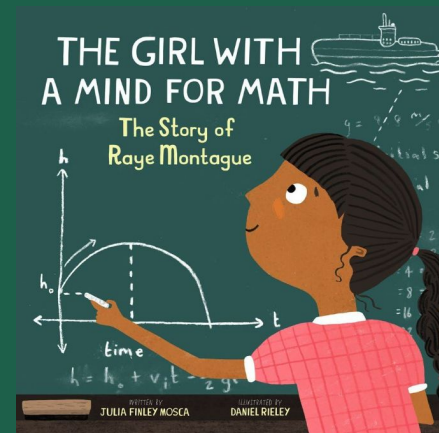
- Combines content that has already been taught (review) and previews new content
- Turns the daily calendar routine into a robust mathematical learning experience
- Consistent routines which support executive functioning skills
- Allows for greater risk taking due to the reliability of routine
- FUN! (reducing math anxiety)



Math Book of the Month



- A monthly school-wide read aloud with tasks by grade level
- Combines literacy and math skills
- Entry point for students who love literacy



- Common experience throughout every classroom in the school
- Promotes talking about math and books and where they intersect!

Math Centers / Rotation

What

Groups rotate from one station to the next

Mini lesson provided in small groups - allowing for greater support and differentiation

Why?

- Targeted instruction,
- Allows for more personal and immediate feedback to students

Student role

Students responsible for completing some tasks without teacher promoting independence and mathematical problem solving

Dynamic Classroom

Dynamic Classroom - tool to provide students with real time feedback on their class work and assessments, allows students to review parts of lessons as needed

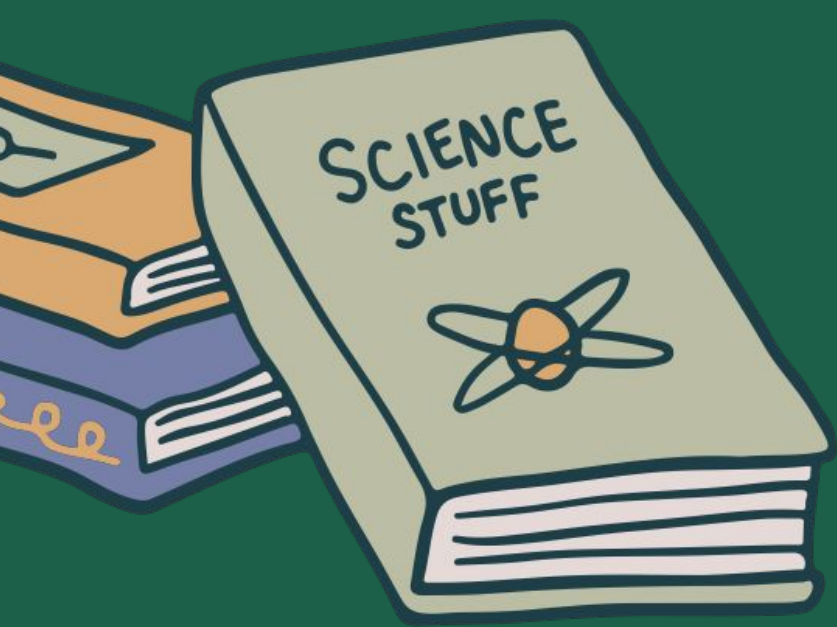
Flow of a Successful Lesson		
		
Component	Icon	Instructional Moves
Prepare for Lesson		- Check here to preview any resources or materials you will need to successfully execute the lesson. Remember the power of preparation! (There is a <i>Preview the Chapter</i> feature that gives you an overview of how the math content progresses across the unit. This is also very helpful.)
Warm Up  Formative Check		Students complete the <i>Warm Up</i> while the teacher monitors the Formative Check. Prompt students with an "X" to give it another try. In rare cases the teacher might pause and pre-teach if an overwhelming amount of the students are struggling.
Explore & Grow		Students can work independently or in partnerships. This is a valuable opportunity to spark cognitive inquiry. There isn't an expectation of correctness since the lesson hasn't been taught yet - so do not belabor this section. You're just getting students' cognitive juices flowing.

At Home

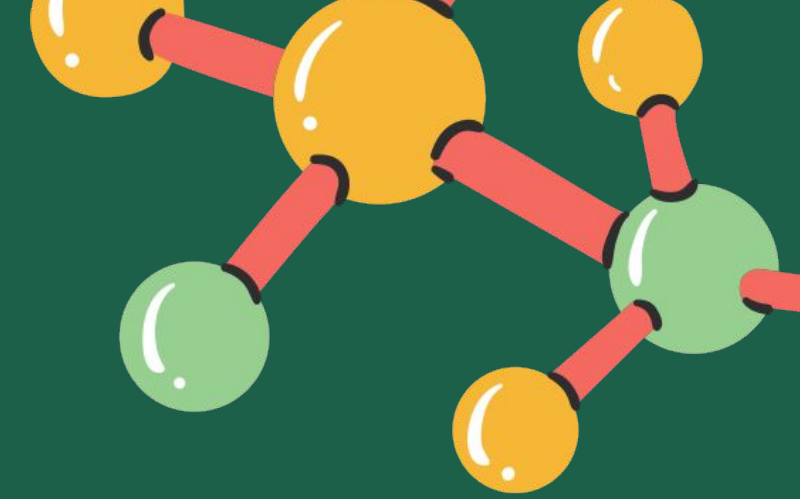
What can I do at home to support my child(ren)?



-
- Talk about how you use math: budget for grocery shopping, time to get to grandma's house,
 - Cook with your child - let them measure
 - Ask you child(ren) to explain how they reached their answer
 - Ask if there is another way the problem can be solved
 - Play card games
 - Play board games with dice
-



Classroom Visits



Kindergarten - Math Centers



3rd - Dynamic Classroom



1st - Number Corner



4th - Dynamic Classroom



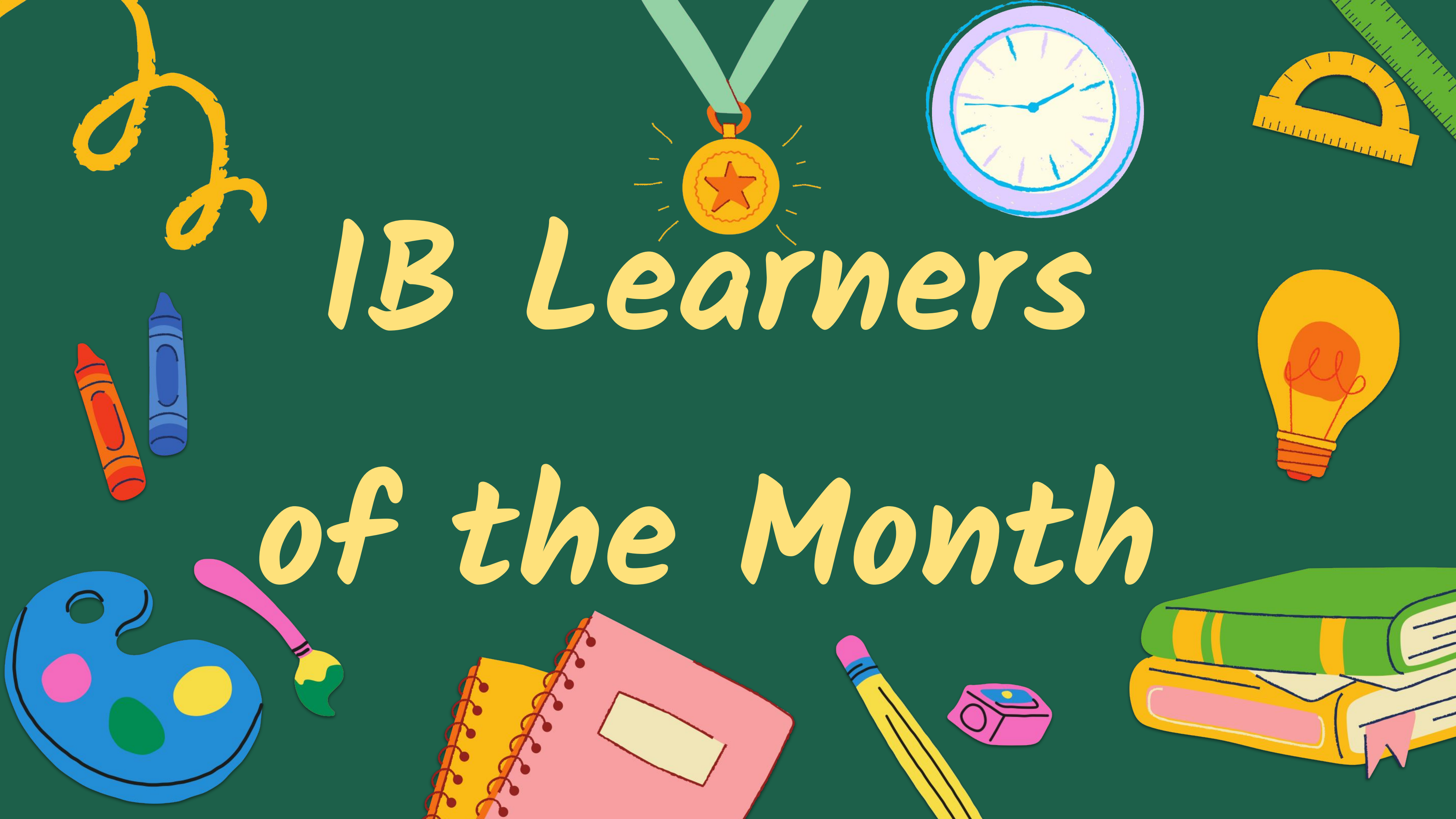
2nd - Math



5th - Book of the Month

Rotation

IB Learners of the Month



Thank You!



