

Math at GWRSD

Grades K-6

GWRSD Math Mission and Vision Statement

Our mission is to facilitate experiences in mathematics that will empower all students to succeed in an ever-changing society. This is achieved through our commitment to excellent teaching, a well-designed curriculum, personalized instruction to guide students to mastery, and a collaborative learning environment.

To support our mission, we are committed to providing ongoing professional development, implementing explicit and effective instructional and assessment strategies, and integrating the use of a variety of resources, including technology, to enhance instruction.

We believe students are empowered to be mathematicians when:

- Teachers model and promote mathematical thinking and reasoning.
- They are given multiple opportunities to apply mathematics in meaningful ways as part of the learning process.
- The foundation of their mathematical learning is built upon a solid number sense.
- Provided with instruction that includes diverse strategies and tools to analyze and solve problems creatively, efficiently, and proficiently.
- The assessment of mathematical understanding is aligned with the content taught and incorporates multiple sources of student achievement data.



What are students learning?

Each grade level has specific math “I can” statements; these are what students should know or be able to do by the end of the year. These learning objectives are the GWRSD Math Curriculum. For a list of “I can” statements for each grade level, please visit the Curriculum tab on the GWRSD website:

<https://sites.google.com/a/govwentworth.k12.nh.us/gwrsd/>

What will you see teachers and students doing?

The focus in each math classroom is to have students develop a deep understanding of math concepts and skills – a sense of what numbers mean, and how they are related and work together in different ways; an understanding of not only *how* but *why* various computations or formulas work; and an ability to think and speak about their math thinking.



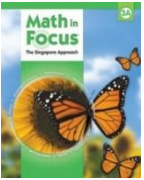
Teachers look first to present new math skills or concepts in very concrete ways. Teachers are making math visual and hands-on, helping students understand how and why the “math” works before introducing traditional, and more abstract, formulas or processes.

In any math classroom, you will likely find students working with manipulatives. You will see the teacher working with students in large groups, small groups, and individually. You will see students thinking, talking, and writing about math. You will see students having varied opportunities to practice their math skills at “math centers” or “math stations.” You will also see students applying what they’ve learned to new or more advanced problems.



What might you see teachers and students using in the classroom?

GWRSD teachers have two primary resources that they use: **Math in Focus** and **Eureka Math**. Teachers may also develop and find supplemental resources or assignments in order to meet the needs of all learners.



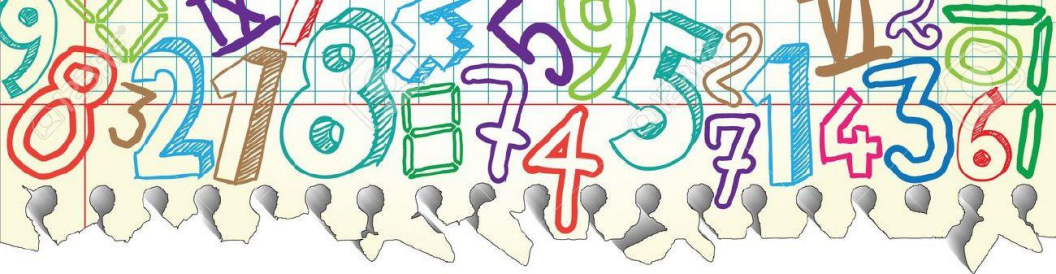
Additionally, teachers use a variety of math **manipulatives**, such as Cuisinaire rods, ten frames, popsicle sticks, and shape tiles, to help students visualize the math concepts that they are learning and practicing.



What can you do to support your child?

Below are a few strategies you can use to support your child's math learning. Your child's teacher can also share suggestions.

- Play math games (dice, cards, counting, and sorting games) with your child to help practice working with numbers.
- Practice counting forward and backward by 1s, 2s, 5s, and 10s.
- Ask your child to teach you what they're learning – be the student!
- Involve your child when you do real-world math – using measuring cups when cooking, counting out plates or utensils at meal time, telling time on an analog and digital clock, etc.
- Go on a “number hunt” or “shape hunt” in your home – point out how and where numbers or shapes are used.
- Let your child make mistakes on their practice work. Seeing student work and mistakes helps a teacher know how to change their instruction to meet student needs.



Glossary of Math Terms

Compose: to combine numbers

Decompose: to separate numbers into smaller parts

Difference: the result when you subtract one number from another

Digit: a symbol used to write the numbers (example: 0, 3, 7)

Groups of: conceptual understanding of multiplication

Number Sense: the ability to recognize numbers, identify their relative values, and understand how to use them in a variety of ways

Number Story: a short story that illustrates a math equation

One-to-One Correspondence: the ability to match one object to one (corresponding) number or object

Part/Whole: a ratio or a fraction that represents a relationship between a part and its whole

Place: location of a digit in a number

Place Value: the value of a digit as determined by its place (example: 352 is made up of 300, 50, and 2, rather than 3, 5, and 2)

Rename: to describe larger numbers by their parts

Set: a collection of “things” (objects or numbers, etc.)


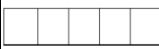
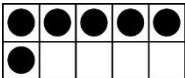



Skip Counting: counting forward or backward by a number other than 1

Subitize: seeing numbers as sets, not one-to-one counting

Sum: the result you get when you add one number to another

Ten Frame Name/Counting Name: one ten one (ten frame name) = eleven (counting name)

Math Tools/Manipulatives

<p>Cuisenaire Rods</p> 	<p>Five Frame</p> 	<p>Ten Frame</p> 	<p>Number Bond</p> 
<p>Number Line</p> 	<p>Place Value Disks</p> 	<p>Rekenrek</p> 