

PARENT MATH UNIVERSITY

How do I help my child in math?

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The Why?

Why are kids learning math the way they are now?

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DeKalb County's Math Vision

In DeKalb County Schools, we believe high quality, standards-based math instruction is accessible for all learners. Students are provided with a physically, emotionally safe environment that elicits thinking, problem solving, and an enduring understanding of mathematics.

- Use of High Quality Instructional Materials (HQIM)
- Instruction adapted to meet individual needs (Scaffolding Instruction)
- Mistakes are viewed as part of learning (Productive Struggle)
- Thinking and Problem Solving: discussing and writing mathematical ideas, feedback that leads to learning and evidence of learning (Communication)
- Enduring Understanding: synthesizing what students should understand, and not just know or do, with lasting value beyond the classroom (Career and College Ready)

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High Quality Instructional Materials

SAVVAS realize

State Approved Curriculum

August 2023 - May 2031

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Best for All Central

Math

Grade Level

Topic

Standards: K.CC.A, K.CC.B, K.CC.C, K.O.A

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TN Standards Resources

The Number System (NS)

Standard 7.NS.A.1 Cluster Heading: A. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

7.NS.A.1a Understand $p + q$ as the number located a distance $|q|$ from p , in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.

7.NS.A.1b Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference and apply this principle in real-world contexts.

7.NS.A.1c Apply properties of operations as strategies to add and subtract rational numbers.

Aspect of Rigor Alignment	Evidence of Learning Statements	
	Practices (1-8)	Assessing
Students with a level 1 understanding of this standard will need they be able to: Identify the sum of a number and its opposite in 0, and that these numbers are called "additive inverse".	Choose a number line diagram that represents a given addition or subtraction problem of rational numbers.	Students with a level 3 understanding of this standard will need they be able to: Generate a number line diagram that represents a given addition or subtraction problem of rational numbers.
Students with a level 2 understanding of this standard will need they be able to: Choose a real-world context to represent a given sum or difference of rational numbers.	Choose a real-world context to represent a given addition or subtraction problem of rational numbers.	Students with a level 4 understanding of this standard will need they be able to: Provide a model and an explanation to show why $p - q$ and $p + (-q)$ are equal.

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State Standards - Mathematics Learning Progressions

Kindergarten	1	2	3	4	5	6	7	8	HS
Counting and Cardinality	Number and Operations in Base Ten				Ratios and Proportional Relationships			Number and Quantity	
	Number and Operations - Fractions				The Number System				
Operations and Algebraic Thinking				Expressions and Equations			Algebra		
				Functions			Functions		
Geometry				Geometry			Geometry		
Measurement and Data				Statistics and Probability			Statistics and Probability		

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3 Math Skills for Long-term Success

- Problem Solving
- Growth Mindset
- Critical Thinking

We are currently preparing students for jobs that don't yet exist, using technologies that haven't been invented, in order to solve problems we don't even know are problems yet.

Richard Riley
Secretary of Education under President Clinton
(quoted by Karl Fisch, Did You Know/What Happens 2010 video)

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New Concept

"Thinking is a necessary precursor to learning, and if students are not thinking, they are not learning."

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The How?

What are your kids actually doing in math class each day? How are they learning the "new math"?

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What does math class look like each day?

- Solve & Share/Discuss, Explain/Explore it, Model & Discuss
- Visual Learning Bridge
- Convince Me, Habits of Mind
- Guided Practice
- Independent Practice
- Quick Check
- Reteach to Build Understanding
- Enrichment
- Additional Practice
- Practice Buddy/Math IXL

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The Beginning

K - 5th Grade

6th - 8th Grade

High School

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Visual Learning Bridge

The image shows a digital interface for 'Visual Learning Animation Plus'. It features a character on the left and a large multiplication chart on the right. The chart is titled 'How Can We Explain Patterns in the Multiplication Chart?' and includes several mathematical properties and examples.

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Building Math Thinkers

Convince Me!
K - 8th Grade

Habits of Mind
High School

Convince Me! Make Sense and Persevere: Use the diagram, place value, and the Distributive Property to find the quotient $408 \div 12$. Hint: Find the value of x and solve.

HABITS OF MIND

Reason: Suppose point C was going to be rebuilt in a new location. Is it possible for C to move to a location where D would not be inside the target region?

[Return](#)

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Guided Practice

Guided Practice Subtract. Use place-value blocks. Draw blocks to show your work.

1. $52 - 13 =$ 2. $46 - 25 =$ 3. $65 - 37 =$

6th - 8th Grade

Do You Understand?

1. **Understand:** How is using place value helpful when solving a subtraction problem?

2. **Use Models:** Problem uses the bar diagram to represent the problem. How do you use the bar diagram to solve for x ?

3. **Check for Understanding:** How do you know if your answer is correct?

Do You Know How?

1. **Draw Models:** Use the place value blocks to solve the problem. How do you know if your answer is correct?

2. **Write an Equation:** Write an equation that represents the problem. How do you know if your answer is correct?

3. **Use Times as Much as:** How many times as much is added to 3 to get 12?

K - 5th Grade

6th - High School

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Independent Practice

Paper

Online

- Practice in Student Book
- Reteach for Understanding
- Enrichment
- Additional Practice
- Assessment Review
- Quick Check
- Daily Review

- Practice Buddy
- Math XL for School
- Adaptive Practice
- Quick Check
- Lesson Quiz
- SuccessMaker

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Possible Homework

Homework

1. You can count on 1, 2, or 3 to add. 2 counters are inside the box. 2 counters are outside the box. How many counters are there in all? Count on from 4.

$4 + 2 =$

2. 6. 7. 8. $6 + 2 =$

Reteach to Build Understanding

Additional Practice

Additional Practice 2-3

Add Whole Numbers

Step 1: Add ones. $11 + 11 = 22$

Step 2: Add tens. $10 + 10 = 20$

Step 3: Add hundreds. $100 + 100 = 200$

Additional Practice

Math XL Online

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The What Now?

How can I help my child at home?

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SAVVAS - Online Access

- Go to [Clever](#) through your school's Quick Links OR Google Classroom (if teacher uses this)
- Sign - in using either a Clever Badge OR student email/password
- Click on the SAVVAS Easybridge tile
- Click on SAVVAS realize

The screenshot shows the SAVVAS EasyBridge interface. At the top, it says 'SAVVAS EasyBridge' and 'DISTRICT'. Below that, there are several learning systems listed: 'successmaker', 'ClassView', and 'realize'. The 'realize' button is highlighted with a blue arrow pointing to it from the instructions on the left.

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Resources

- Online Visual Learning Bridge Videos
- Another Look Videos/Math Nerd Videos
- Student Book & Notes from Class

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Q & A

What questions do you still have?

The slide features a central orange box with the text 'Q & A' and a black box below it with the text 'What questions do you still have?'. The corners of the slide are marked with large, colorful numbers: 1 (pink), 2 (blue), 3 (purple), 4 (yellow), 5 (cyan), 6 (yellow), 7 (orange), and 8 (blue).

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References

- Building Thinking Classrooms in Mathematics K-12 by Peter Liljedahl
- <https://online.nsu.edu/degrees/education/masters-urban/mathematics/math-prepares-students-success/>
- <https://bestforall.tnedu.gov>

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