

# Math at Home

## Grade-Level Activities for Families

Make math meaningful with simple, everyday activities that support your child's learning!

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### Stay Positive

Avoid saying "It's okay, I was never good at math either". The idea of being a "math person" is a myth and everyone can learn math. Focus on effort and try saying things like:

- "I know this is tough. It is tough for me too, but we'll figure it out together."

### Make Math Part of Everyday Conversation

Use everyday moments to explore Math. Even casual math talk builds confidence. Use daily moments to explore and discuss math in real-world ways:

- At the store: "If this shirt is 25% off, how much will it cost?"
- Cooking: "The recipe calls for  $\frac{3}{4}$  cup of sugar—how many tablespoons is that?"
- Travel: "If we're going 60 miles per hour, how long will it take to drive 150 miles?"
- Sports: "If your team scored 3 out of 5 times, what's the shooting percentage?"
- Money: "If you save \$10 a week, how much will you have in 3 months?"

### Encourage Curiosity

When your student asks a math-related question, explore it with them. Connect math to their interests:

- Animals: "If a zoo has 12 enclosures that each hold 5 animals, how many animals are there in total?"
- Fire trucks: "If a fire hose sprays 150 gallons per minute, how much water is used in 10 minutes?"
- Video games: "Let's graph your scores over the week—can you spot any trends?"
- Music: "If a song is 3.5 minutes long, how many songs fit in an hour?"
- Sports: "If a player makes 18 out of 24 shots, what's their shooting percentage?"

### Let Your Student Teach You

One of the best ways to learn something is to teach it. If you're both stuck on a problem, ask your child to explain what they know.

### Embrace "New Math"

Math is taught differently today, but the math itself hasn't changed. Today's methods focus on understanding, not just answers. Instead of saying, "This is too confusing," try:

- "I've never seen it done this way. Here's how I learned it—let's figure out this new method together."

You don't need to be a math expert to help your child succeed. Sit down together and look at a few examples from their homework or classwork. Ask them to explain what they've been learning—this helps them process and remember the material. Review their notes or check their teacher's website for helpful resources. Encourage your child to show their work and talk through each step so you can follow their thinking.

**Supporting math at home isn't about having all the answers—  
it's about being curious, staying positive, and showing your child  
that learning is something you can do together.**

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### Grade 6

- Expressions: Double or halve a recipe to practice using exponents and variables.
- Percents: Figure out sale prices or tips (e.g., "What's 20% off \$45?").
- Ratios & Rates: Compare prices at the store to find the best deal per unit.
- Divide Fractions: Split a recipe into smaller parts (e.g., "How many  $\frac{1}{4}$  cups are in  $\frac{1}{2}$  cup?").
- Coordinate Plane: Plot points to map out a room or garden.
- Data & Graphs: Track screen time and create a simple graph or chart.
- Absolute Value: Compare temperatures above and below zero.
- Area & Volume: Measure a tabletop or box to find area or volume.
- Graphing Relationships: Chart chores vs. allowance to see patterns.
- Variables: Talk about what changes and what stays the same (e.g., time vs. distance walked).

### Grade 7

- Track and graph data: Record daily steps or screen time and make a simple chart.
- Use proportions: Double a recipe or read a map scale to explore ratios.
- Figure out discounts, tax, or interest while shopping.
- Compare unit rates: Check which item is cheaper per ounce or mile per gallon.
- Explore probability: Use dice or coins to predict outcomes and test them.
- Use real-life examples like temperatures or money to add and subtract positives and negatives.
- Solve real-world problems: Plan a trip or budget using multiple steps and operations.
- Solve simple problems like "How many items can I buy with \$20?"
- Model angles: Use paper strips to show angle types like vertical or supplementary.
- Draw shapes: Use a ruler and protractor to create triangles or quadrilaterals.
- Explore scale: Use maps or photos to compare sizes and shapes.
- Cross-sections: Slice fruit or clay to see 2D shapes inside 3D objects.
- Measure circles: Use round objects to find circumference and area.
- Estimate how much a container holds or how much wrapping paper is needed.

### Grade 8

- Positive & negative numbers: Track wins/losses in a game or changes in a budget.
- Multi-step problems: Plan a trip or event using multiple steps and operations.
- Solve real-life problems like "If  $2x + 5 = 15$ , how many items can I buy?"
- Unit rates & proportions: Compare prices per ounce or speed using tables or graphs.
- Scale drawings: Use maps or blueprints to explore size and proportion.
- Area, surface area, volume: Estimate paint needed for a wall or water in a cone-shaped cup.
- Slope & linear equations: Graph savings over time and talk about rate of change.
- Systems of equations: Compare two phone plans to find the better deal.
- Scatter plots & functions: Track study time vs. test scores and look for trends.
- Angle relationships: Use paper strips to model angles from parallel lines and transversals.
- Transformations: Use graph paper or apps to reflect, rotate, or move shapes.
- Congruence & similarity: Cut and compare shapes to explore matching and scaling.
- Use formulas to find volume or work backward to find missing measurements.
- Data & predictions: Track daily steps or screen time, graph it, and make predictions.
- Probability: Use dice or coins to explore chance and simulate outcomes.