

Summer Learning Spotlight

Math

Middle/High School
Summer 2026

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Use math to promote healthy summer habits

Can doing math make your teen healthier? With this summer-long project, it just might! Have your teen track:

- **Nutrition.** Encourage your teen research nutrients, such as calcium, iron and fiber. How much do teens need each day? Which foods are rich in those nutrients? Then, ask your teen to read food labels and create a menu of healthy meals for a week and list the nutrients in one serving of each dish. Will the plan help your teen meet daily nutritional needs?
- **Screen use.** Have your teen keep a log of screen activities for a week, then make a graph showing the breakdown of the time spent on



each. Look over the graph together and, if necessary, brainstorm manageable ways to cut back.

- **Fitness.** Have your teen use a spreadsheet or an app to track workout data, such as reps, distances and speeds. Your teen can use the data to calculate averages for each week or month of summer, then analyze trends and make any needed adjustments.

Encourage computational thinking

One important goal of math classes is to develop students' *computational thinking*. This problem-solving method is used in computer science and in everyday life. This summer, ask your teen to:

- **Recognize patterns.** When you're out together, name three random things you see. Challenge your teen to find similarities. For example, what do a map, an elevator and a car have in common? They all have keys.
- **Divide complex tasks** into manageable parts. If your teen is considering higher education, initial tasks might include:
 1. Learn about different types of higher-education degrees and certificates.
 2. List most important personal factors in choosing a college or technical school.
 3. Research schools that fit criteria.
- **Create algorithms,** or step-by-step processes, to approach everyday situations. If you need to run several errands, have your teen figure out how to complete them while traveling the fewest possible miles. Your teen can use GPS or a map and present you with the most efficient solution.

Encourage math learning this summer by linking it to teen-friendly topics like music, sports, technology and money. Try these ideas to strengthen the skills your teen will need when school starts again.

Encourage entrepreneurship

Creating a business is a great way for teens to earn money, build math skills and stay productive all summer. Whether the operation will be a season-long endeavor or a "pop-up" like a car wash, your teen needs a business plan. Have your student:

- **Calculate operating costs.** These might include printing costs for flyers as well as supplies like ingredients for baking or waste bags for walking dogs. Encourage your teen to consider ways to save, like using word-of-mouth or a neighborhood website to advertise.
- **Set prices** with the goal of turning a profit. Your teen can research online or on local bulletin boards to see what others in the area charge for similar goods or services.



Combine summer science with math

Conducting hands-on science experiments lets teens discover how math and science are related. To build skills in both subjects, have your teen experiment with:

- **Physics.** Your teen can explore projectile motion by building a simple catapult to launch water balloons. Your teen can build it from household materials like craft sticks and rubber bands, then measure different amounts of water into balloons. Suggest measuring the angle of projection, the circumference of each balloon and the distance it travels. How do angle and size affect how far a balloon flies?
- **Chemistry.** Ask your teen to make lemonade or iced tea to observe chemical reactions. Your teen can measure the time it takes to dissolve sugar in cold, hot and room-temperature water. What impact does temperature have on dissolving time? For a properly controlled experiment, remind



your teen to use the same amount of sugar and water for each trial. Then, enjoy the results!

- **Biology.** Encourage your teen to study how different factors affect plant growth over time. Your teen could choose two plants of the same type and grow them in different spots—one that gets more sunlight and one that's in a place where rain accumulates. Have your teen measure and observe both plants at regular intervals this summer and compare growth, leaf production, etc.

Capture the summer in math

Encourage your teen to record everyday summer life in math terms. Have your teen create:

- **A pie chart of activities.** Have your teen calculate and display percentages of time spent traveling, being outdoors, reading, etc.
- **Summer-themed word problems.** Your teen might write, "We got 3.4 inches of rain in June, 4.8 in July and 2.9 in August. What was the average rainfall for summer 2026?" and then solve the problem.
- **A math-related news feed.** Your teen can share articles with statistics about the fast new roller coaster in your state, data on a periodical cicada brood in your area, or the details of a record-breaking heat wave.

Make math catchy

Connecting math to your teen's favorite music makes calculating and applying formulas more fun. Encourage your teen to:

- **Research the data** behind favorite songs. Which songs are streamed most often? How much money do the artists earn when someone listens to their song? How many plays would it take to earn one million dollars?
- **Set formulas to popular tunes.** Your teen can replace the lyrics in a popular song's chorus with a math formula or the steps for solving a math problem.

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Invest in financial literacy

Money management is an essential life skill that depends on accurate math. Help your teen learn to:

- **Create a spending plan.** Will your teen have money from an allowance or a summer job? Ask your teen to list ways to make the money go further by spending less, such as by buying store brands, carpooling with friends and attending matinee movies.
- **Research driving costs.** From oil changes to car insurance, there's more expense to driving than making car payments and getting

gas. Help your teen research costs associated with a desired car, including insurance, maintenance, and local or state taxes and inspection fees. How much would your teen pay over five years?

- **Evaluate credit options.** Have your teen calculate the actual cost of a product if your family purchased it using a credit card and made minimum monthly payments. How long would it take to pay off the debt, and how much extra would you spend?