

# STEM Fun for Middle School Kids

## Cool STEM Websites

- [The Big Brain Theory – Discovery Channel](#): Competitors on this TV show have just 30 minutes to come up with a solution to an (seemingly) impossible engineering challenge.
- [Bill Nye the Science Guy](#): Bill’s entertaining television episodes cover everything from comets to the science of music. Have some fun with his [home demos](#).
- [Chi Alpha Mu](#): Otherwise known as the National Junior Mathematics Club, Chi Alpha Mu is the younger sibling of [Mu Alpha Theta](#). Check out its list of contests and summer grants.
- [Environmental Health Student Portal](#): Interested in learning more about chemicals, air quality and water pollution? This website has videos, games and experiments to help you along.
- [Kids Ahead](#): A STEM bonanza. Kids Ahead is packed with all kinds of resources, including scavenger hunts, videos, articles, links to local activities and fun events and info on cool jobs, that inspire and excite.
- [MathMovesU](#): Hone your math skills with online games, virtual thrill rides and national competitions! MathMovesU also offers a variety of scholarships and sponsorships.
- [MythBusters – Discovery Channel](#): The folks at MythBusters use experiments to bust rumors, myths and urban legends. (During their Cannonball Chemistry experiment, they accidentally drove a cannonball through the side of a house.)
- [Sally Ride Science](#): Founded by America’s first female astronaut, Sally Ride Science hosts a number of [student programs](#), including science festivals and overnight camps.
- [Science Bob](#): Bob is a science teacher who loves to experiment (often on Jimmy Kimmel). His website has videos, links and plenty of ideas for build-your-own experiments and science fair projects.
- [SciJinks](#): It’s all about the weather. The National Oceanic and Atmospheric Association (NOAA) and NASA put together this educational website to teach kids about meteorology and earth science. Check out their [games section](#).
- [Scratch](#): Designed for kids age 8 to 16, Scratch is a place where you can program your own interactive stories, games and animations. A project of the Lifelong Kindergarten Group at the MIT Media Lab.
- [TechRocket](#): A great learning tool for kids interested in programming, graphic design, and more!

## STEM Games and Apps

- [Auditorium: The Online Experience](#): Auditorium is a beautiful and challenging puzzle with many different solutions. One game reviewer called it “part puzzle game, part light sculpture, part musical instrument.”
- [CSI: Web Adventures](#): Based on the T.V. series, this immersive adventure allows you to solve your own forensics case. Levels range from beginner to advanced.

- [DimensionU Games](#): DimensionU has developed lots of games that tackle STEM skills. Use math to reveal the mysteries of Xeno Island or join forces in a race to disengage a bio-digital virus.
- [Gamestar Mechanic](#): Learn to design your own video game! Explore game-based quests and take courses to build your skills.
- [Machinarium](#): An incredibly slick point-and-click adventure game. You're a robot who's been tossed on a scrap heap and must solve a series of puzzles to make it back to the city, save the girl and beat the bad guys.
- [Mathemagics Mental Math Tricks](#): Amaze friends and parents with these quick (but impressive) mathematics tricks.
- [Minecraft](#): Minecraft is a popular 3-D block-building game that pushes your imagination to the limits. Protect yourself against nocturnal monsters or a build a giant one-of-a-kind creation.
- [National Geographic Games](#): Journey deep into the nano-world. Build the greenest city in the universe. Prepare for the apocalypse. Some of these games are free; some must be purchased.
- [Portal 2](#): A mind-bending action adventure game built around physics principles and environmental puzzles. Navigate portals and battle against a power-crazed artificial intelligence named GLaDOS. Suitable for teens.
- [Quantum Conundrum](#): Your uncle has disappeared. He's left his Interdimensional Shift Device behind. And his house just got very weird. Welcome to the physics-based puzzle game known as Quantum Conundrum.
- [Robots for iPad App](#): Everything you want to know about robots in one easy app. Robots for iPad has 360-degree views, lots of articles and specs and hundreds of photos and videos.
- [You Can Do the Rubik's Cube](#): You knew there had to be a game completely devoted to it. Unlock the secrets of the world-famous Rubik's Cube.

## STEM Camps

- [Ambition Program](#): Boldly go where no kid has gone before. Immerse yourself in a six-day aviation-themed learning adventure at the National Flight Academy in Florida.
- [Audubon Nature Camps](#): Audubon hosts a huge number of Nature Camps throughout the country. Beginning in April, they start taking applications for [Wild Birds Unlimited Scholarships](#).
- [Camp Euclid: A Mathematics Research Camp](#): Participate from virtually anywhere! Camp Euclid's six-week summer camps are held online. Collaborate with fellow students on solution-defying math problems.
- [Camp KAOS](#): Discover the thrill of space. These exciting flight and space adventure-themed camps take place at the Smithsonian-affiliated Kansas Cosmophere and Space Center (KAOS) in Hutchinson, Kansas.

- [Digital Media Summer Camp for Teens](#): Digital Media’s award-winning summer camps are for teens age 12 to 17. Learn about game design and development, programming and apps, filmmaking and visual effects or 3-D modeling and animation.
- [Earth Camp](#): Explore the wonders of Arizona’s Sonora Desert. You’ll camp in the wilderness, scan the night sky at the University of Arizona Sky Center and become an expert in sustainability and water resource issues.
- [Engineering Summer Camps](#): Fancy some problem-solving this summer? The Engineering Education Service Center has put together a state-by-state list of engineering summer camps.
- [The ExxonMobil Bernard Harris Summer Science Camp \(EMBHSSC\)](#): Live (and play) on a real college campus. Designed to support underrepresented middle school kids, these popular summer science camps are located across the country.
- [iD Tech Camps](#): Make your own video game. Program your own app. Code in Java. At iD Tech’s day and overnight camps, practically anything is possible.
- [Physics Wonder Girls at Indiana Wesleyan University](#): Funded by a grant from the National Science Foundation, the Physics Wonder Girls camp offers middle school girls the opportunity to take part in hands-on physics experiments, projects, physics-based games, and science tours.
- [STEM Summer Institute at MIT](#): During the summer, STEM offers a five-week math and science institute at MIT for students entering grades six through nine. Field trips and racquet sports included.
- [Youth Digital Summer Camps](#): Design 3-D models for Minecraft, create your own video game or even direct a 3-D animation! These camps focused on digital technology are held in various southern cities. For kids age 8 to 16.
- [Youth Empowered Action \(YEA\)](#): YEA is a week-long overnight camp for youth age 12 to 17 who want to change the world. Workshops include “Planetary Problem Puzzles” and “A Million Ways to Make a Difference.”
- [Zero Robotics Middle School Summer Program](#): Launch yourself into computer programming, robotics and space engineering. MIT’s five-week STEM curriculum will immerse you in space and provide you with hands-on experience programming SPHERES (Synchronized, Position, Hold, Engage, Reorient, Experimental Satellites).

## Science and Technology Contests

- [Discovery Channel Young Scientist Challenge](#): In this one-of-kind contest, you’ll be challenged to create a one- to two-minute video describing a new and innovative solution that can solve an everyday problem. The grand prize is \$25,000 and an international trip!
- [eCYBERMISSION](#): By tackling a mission (such as alternative sources of energy) with your team, you have the chance to win \$5,000 in savings bonds and a STEM-in-Action grant to put your solution to work in your community.

- **FIRST® LEGO® League:** Design, build and program your own robot using LEGO MINDSTORMS® technology! Score points on a themed playing field and develop solutions to real-world challenges.
- **Future City Competition:** If you can imagine it, you can build it. Working with an educator and engineer mentor, you'll plan a city using SimCity™ software, research solutions to an engineering problem and build tabletop scale models with recycled materials.
- **National Stem League (NSL):** Formerly known as the Ten80 Student Racing Challenge, NSL offers four different contests for middle school and high school students. You can engineer a fast, efficient and stable racing car in the Racing Challenge, teach a robot to navigate a course in the Rover Challenge, transition to renewables in the Energy Challenge or do something completely new in the Innovation Challenge.
- **National STEM Video Game Challenge:** Submit your original game design made with tools like Gamestar Mechanic, Scratch and Kodu. The winner receives an AMD-powered laptop computer with game design software and \$2,000 for his or her school.
- **NSBE Jr. Bridge Magazine Contests:** The National Society of Black Engineers sponsors a variety of contests that challenge you to demonstrate your STEM skills or promote awareness around issues in STEM.
- **NSBE Jr. Explorer Technical Innovation Competition:** Go head-to-head with other student scientists at the NSBE Annual Convention. Middle school and high school students are eligible. You must be a paid NSBE Jr. member to participate.

## Math Contests

- **AMC 8:** Test your math skills in this 25-question, 40-minute multiple choice contest (held every November).
- **MATHCOUNTS Competition Series:** MATHCOUNTS holds a series of “bee-style” contests in over 500 local chapters. Top teams advance to the state competition and then to the National Competition in May.
- **MATHCOUNTS Math Video Challenge:** Create your very own math video with your friends and classmates and be in the running to win a college scholarship!
- **Perennial Math Tournaments:** A virtual math tournament (via videoconferencing) for both teams and individuals. Open to grades three to eight.
- **Purple Comet! Math Meet:** In this free, online and international math competition, your team will be presented with 25 problems to solve in 90 minutes.
- **Rocket City Math League (RCML):** Sponsored by Mu Alpha Theta, RCML is a year-long, four-round math competition. Trophies are mailed to top-ranked middle school and high school students at the end of the year.
- **U.S.A. Mathematical Talent Search (USAMTS):** Pit your problem-solving skills against some of the toughest conundrums out there. Because of the level of difficulty, USAMTS allows students a full month or more to work out solutions.

## STEM Career Resources

- [Career Aisle: Middle School](#): Wondering what the future might hold? Explore some of the options available to you in science, technology, engineering and math. Lots of videos.
- [Kids.gov Jobs](#): Get the skinny on every job under the sun. Wondering what marine biologists do? Want to watch a video on becoming a veterinarian? You're in the right place.
- [iON Future](#): If website browsing isn't your style, you can always play this free STEM career exploration game. It's geared toward middle school and early high school students.
- [NASA Look to the Future: Careers in Space](#): You don't have to be an astronaut to work in the space program. NASA has a list of other professions, including robotics engineer, computer scientist and oceanographer, for you to consider.