



I will make a big assumption here that you are, no doubt, familiar with the terms STEM and STEAM, and the importance placed on them in modern education. To refresh, the acronym STEM stands for Science, Technology, Engineering, and Math. STEAM adds an A for ARTS. Before sharing a host of resources for you, I think it would be valuable to see just how we got here, and just what STEAM is.

What is STEAM?

What follows is a brief listing of STEAM Resources for students from K-12. Much of the material presented here should also hold a fascination for adults as well, not only as a means of engaging with your children, but for their own enjoyment and edification.

The great majority of the listed resources have been taken from a wonderful resource in its own right: <u>The Ultimate STEM Guide for Kids: 239 Cool Sites About</u> <u>Science, Technology, Engineering and Math</u>. One of the beauties of this guide is its arrangements of sites according to grade level, as well as the inclusion of outstanding games, apps, contests, camps and careers. What you see here only scratches the surface of the many, many resources to which they provide links. I highly encourage you to explore all the other resources highlighted there.

STEAM Websites for Grades K-12

BabbleDabbleDo: This is a site that allows students to explore and engage

- with their right brain.
- <u>Code.org</u>: No one is too young (or old, I might add) to code. Learn how to build an iPhone game, write your first computer program, draw in JavaScript and much more.
- <u>Easy Drawing Guides</u>: Easy and fun drawing tutorials. Close to 1000 easy, step-by-step drawing guides
- <u>Engineering, Go for It! (eGFI)</u>: Discover the nuts and bolts of engineering. This website contains advice on careers, entertaining info on all kinds of fields and links to the eGFI magazine.
- <u>Exploratorium</u>: The website of the San Francisco-based Exploratorium is jampacked with interactive activities, videos, apps, links and more.
- <u>Extreme Science</u>: Extremely interesting. Here you'll find wild and weird facts about nature, resources for science projects and info on all kinds of world records.
- <u>How Stuff Works</u>: It has hundreds upon thousands of articles that explain the wonders of science (and almost everything else on the planet).
- <u>Make Beliefs Comics</u>: A comic strip creator easy enough for children to use, but there are enough options for adults to get a message across, too. Users can choose from 25 characters to fill a two, three, or four-paneled comic strip
- metkids: Whimsical, kid-friendly intro to the wide world of art
- <u>Museum of Science + Industry Chicago Online Science</u>: Apps and activities and videos, oh my! Play games, watch baby chicks hatching, create virtual chemical reactions or use forensic science to analyze different types of candy.
- <u>NASA Education for Students</u>: Career information, image galleries, NASA Television, features and articles ... whatever you'd like to know about aerospace, you're sure to find it here.
- <u>NASA Science, Engineering, Mathematics and Aerospace Academy (SEMAA)</u>: SEMAA was developed to increase the participation of historically underserved K-12 youth in STEM fields. School activities and summer sessions are held throughout the nation.
- <u>NOVA</u>: The website for PBS's popular science show is overflowing with videos and articles. Explore the wonders of evolution, nature, physics, math— practically any STEM subject that rings your bell.
- <u>Science Buddies</u>: Get stuck on science. This website has over 1,000 ideas for science fair projects, project guides, project kits and detailed profiles of STEM careers.
- <u>Science Channel</u>: Question everything. Along with a rundown on the Science Channel's TV programs, this website has plenty of videos, quizzes, games and the latest science news.
- <u>STEM-Works</u>: In addition to articles and job information, STEM-Works has stocked their site with interesting <u>activities</u>. Test your skills in the reptile quiz. Rescue an athlete in the Bionic Games. Or, simply follow the path of great whites with the Global Shark Tracker.
- <u>Tinkercad</u>: Amazingly simple yet powerful online CAD tool turns kids into makers
- <u>Tynker</u>: A computing platform that allows children to develop programming skills through fun, creative courses. Join the millions of kids from around the country learning to code with Tynker!
- <u>Kkan Academy</u>: Khan Academy breaks down complex topics on a range of subjects including programming, math, and statistics! It has learning resources in almost all STEM subjects K-12.
- <u>Flite Test STEM</u>: Flite Test provides K-12 students with a variety of easy to download, free lessons that teach students about STEM through aviation activities.

• <u>HOODA MATH</u>: HOODA MATH is a website for math games divided by subject. Students K-12 and math lovers of any age can learn about numbers while having fun.

Now, Full STEAM Ahead!

George Matthew, Youth Services Coordinator



JUNE 5, 2020 6:30PM Tickets \$25 per household

An Evening with Jamie Ford: The Virtual Sequel

Jamie Ford, New York Times Bestselling Author of Hotel on the Corner of Bitter and Sweet, Songs of Willow Frost, and Love and Other Consolation Prizes, will join us via Zoom for a conversation about his latest book and other updates since his visit to Gettysburg last September.

Click Here for more information or to purchase tickets

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