

Ohio's Math Resources

HIGH SCHOOL

ACTIVITIES AND LESSONS

[Statistics Education Web \(STEW\)](#) from the American Statistical Society (AMSTAT) has vetted statistics lessons aligned to the GAISE model and the Common Core State Standards. It has printable PDFs and Word documents with student facing worksheets and teacher answer keys for grade bands K-5, 6-8, and high school.

[The United States Census Bureau](#) has lesson plans organized by grade bands K-5, 6-8, and high school. Opening up the lesson will show the specific grade it applies to. It has printable student lessons and teacher answer keys.

[YouCubed](#) by Jo Boaler is an online resource for a variety of math tasks. These tasks can be sorted by grade level and topics. Each task has a printable worksheet attached.

[Exploding Dots](#) by Global Math Project is a fun, exciting way to think about math. It is an astounding mathematical story that starts at the very beginning of mathematics—it assumes nothing—and swiftly takes you through a wondrous journey through grade school arithmetic and beyond. Elementary and middle school students can see arithmetic algorithms as a beautiful story and see the role they play in advanced high school mathematics. It uses video and interactive resources to help kids' reason about math. It offers low tech options as well.

[Yummy Math](#) has real-world activities for students in Grades 2-High School that are aligned to standards. The activities are free and printable. There is a cost to access the answer keys.

[Dan Meyer's Three Act Tasks](#) are low floor, high ceiling tasks in three parts: an engaging and perplexing Act 1, an information and solution seeking Act 2, and solution discussion and solution revealing Act 3. They allow students to ask mathematical questions, think critically, and develop estimation and number sense skills. These are usually presented in the forms of video or photos. They are also organized by standard.

[Khan Academy](#) are online video math lectures. These lectures may be useful to review math content and practice some skills. They are not ideal for deep understanding and problem solving nor do they integrate the standards of mathematical practice. This resource could be used to supplement other activities but should not be used as the primary resource. It has videos from Preschool through Advanced Math topics. It also has links to reinforce EngageNY and Illustrative Mathematics as well as SAT test prep.

[5280 Math](#) has creative prompts based on images and focused on noticing and wonderings. Parents can do these with their students. [Here](#) are some questions parents can ask their children to prompt mathematical thinking. They also have good math projects found [here](#).

[The Mathematics Assessment Project](#) is part of the Math Design Collaborative initiated by the Bill & Melinda Gates Foundation. The project set out to design and develop well-engineered tools for formative and summative assessment that expose students' mathematical knowledge and reasoning, helping teachers guide them towards improvement and monitor progress. The tools are relevant to

any curriculum that seeks to deepen students' understanding of mathematical concepts and develop their ability to apply that knowledge to non-routine problems.

Algebra 1

[Algebra 1 Model Curriculum with Instructional Supports](#) breaks down each cluster of standards, has instructional strategies, and instructional resources/tools that include a variety of links that connect to each standard. The table of context is hyperlinked. To find links to lessons go to the Instructional Tools/Resources link under each cluster.

[Algebra 1 Illustrative Mathematics Curriculum](#) is one of the highest rated curricula by EdReports. It is meant to be done online. It has resources for students, families, and educators.

[Algebra 1 EngageNY](#) is a full curriculum that is rated highly by EdReports. The lessons are in-depth and aligned to the standards. It has printable student worksheets and teacher answer keys.

[Algebra 1 Mathematics Vision Project](#) has a full curriculum of lessons. There are also teacher notes available.

Geometry

[Geometry Model Curriculum with Instructional Supports](#) breaks down each cluster of standards, has instructional strategies, and instructional resources/tools that include a variety of links that connect to each standard. The table of context is hyperlinked. To find links to lessons go to the Instructional Tools/Resources link under each cluster.

[Geometry Illustrative Mathematics Curriculum](#) is one of the highest rated curricula by EdReports. It is meant to be done online. It has resources for students, families, and educators.

[Geometry EngageNY](#) is a full curriculum that is rated highly by EdReports. The lessons are in-depth and aligned to the standards. It has printable student worksheets and teacher answer keys.

[Geometry Mathematics Vision Project](#) has a full curriculum of lessons. There are also teacher notes available.

Math 1

[Math 1 Model Curriculum with Instructional Supports](#) breaks down each cluster of standards, has instructional strategies, and instructional resources/tools that include a variety of links that connect to each standard. The table of context is hyperlinked. To find links to lessons go to the Instructional Tools/Resources link under each cluster.

[Secondary Mathematics 1 Mathematics Vision Project](#) has a full curriculum of lessons. There are also teacher notes available.

Math 2

[Math 2 Model Curriculum with Instructional Supports](#) breaks down each cluster of standards, has instructional strategies, and instructional resources/tools that include a variety of links that connect to each standard. The table of context is hyperlinked. To find links to lessons go to the Instructional Tools/Resources link under each cluster.

[Secondary Mathematics 2 Mathematics Vision Project](#) has a full curriculum of lessons. There are also teacher notes available.

Algebra 2/Math 3

[Algebra 2 Illustrative Mathematics Curriculum](#) is one of the highest rated curricula by EdReports. It is meant to be done online. It has resources for students, families, and educators.

[Algebra 2 EngageNY](#) is a full curriculum that is rated highly by EdReports. The lessons are in-depth and aligned to the standards. It has printable student worksheets and teacher answer keys.

[Algebra 2 Mathematics Vision Project](#) has a full curriculum of lessons. There are also teacher notes available.

Precalculus and Advanced Topics

[Precalculus and Advanced Topics EngageNY](#) is a full curriculum that is rated highly by EdReports. The lessons are in-depth and aligned to the standards. It has printable student worksheets and teacher answer keys.