
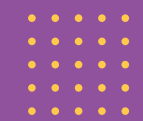
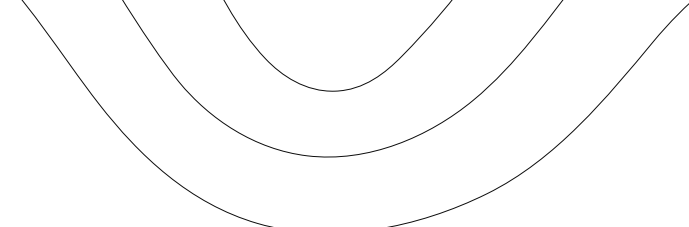


# 6<sup>th</sup> Grade

## Course Description





# Math Grade 6

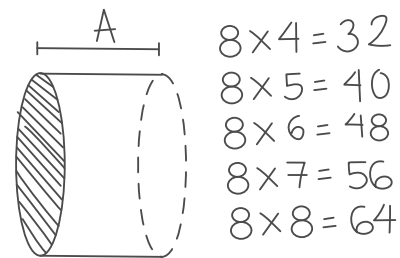
Math 6 delivers instruction, practice, and review designed to develop computational fluency, deepen conceptual understanding, and apply mathematical practices.

Course topics include ratios and rates, fraction and decimal operations, and signed numbers. Students continue to build their algebra skills by plotting points in all four quadrants of the coordinate plane and solving equations and inequalities. Geometry topics include area, surface area, and volume, and statistical work features measures of center and variability, box plots, dot plots, and histograms.



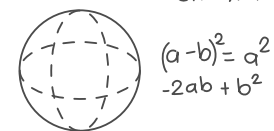
The two-semester course is arranged in themed units, each with three to five lessons. Each lesson includes a variety of activities such as direct instruction, application of skills, performance tasks, and formative and summative assessments. Students engage with the subject matter in an interactive, feedback-rich environment as they progress through standards-aligned content and demonstrate their learning through computer- and teacher-scored assignments.

By constantly honing the ability to apply their knowledge in abstract and real-world scenarios, students build the depth of knowledge and higher-order skills required to demonstrate their mastery when put to the test. This course is built to state standards.



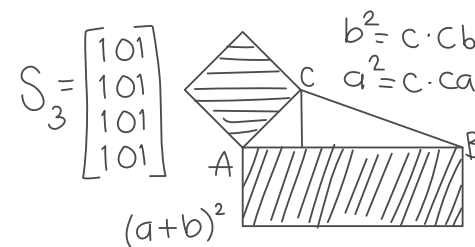
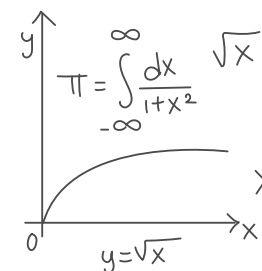
$$a^2 = b^2 + c^2 - 2bc \cos \alpha$$

$$\sin^2 x + \cos^2 x = 1$$

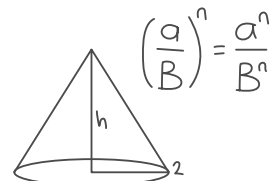


$$2x^2yy' + y^2 = 2$$

$$\cos 2x = \cos^2 x - \sin^2 x$$



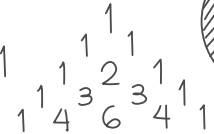
$$\tan(2a) = \frac{\tan(a)}{1 - \tan^2(a)}$$



$$a^2 + b^2 = c^2$$

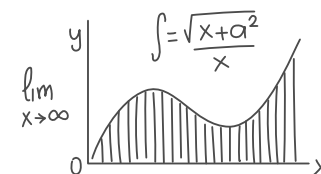


$$\pi = 3.141592$$



$$75\% \quad \alpha x = \frac{-\alpha x}{2x}$$

$$x^2 + (y^2 - \sqrt[3]{x^2})^2 = 1$$





# English Grade6



English 6 delivers instruction, practice, and review designed to build students' communication and reading comprehension skills. Reading comprehension lessons strengthen students' critical analysis skills as they study how nonfiction and literature can be used to share ideas. Writing lessons combine free-response exercises with drafting strategies and exemplars to help students communicate clearly and credibly in narrative, argumentative, and explanatory styles.

To develop skills specific to public discourse, speaking and listening lessons guide students as they evaluate clips and readings from speeches and discussions. In language lessons, students build foundational grammar skills needed to articulate their ideas and understand challenging words.



The two-semester course is arranged in themed units, each with three to six lessons.

Each lesson includes a variety of activities such as direct instruction, application of skills, performance tasks, and formative and summative assessments. Students engage with the subject matter in an interactive, feedback-rich environment as they progress through standards-aligned content and demonstrate their learning through computer -and teacher- scored assignments.



Sixth Grade Course Description



[www.mattalentinstitute.org](http://www.mattalentinstitute.org)

# Physical Science Grade 6

Middle School Physical Science delivers instruction, practice, and review to help students develop scientific literacy, deepen conceptual understanding, and apply scientific practices. Students explore concepts including the interactions of matter; motion and stability; waves and their technological applications; and energy.

The two-semester course is arranged in themed units, each with two to three lessons. In each unit, activities make complex ideas accessible to students as they discover the nature of science through focused content, interactive mini-investigations, multi-modal representations, and personalized feedback.



Each lesson includes a variety of activities such as direct instruction, application of skills, performance tasks, and formative and summative assessments. Students engage with the subject matter in an interactive, feedback-rich environment as they progress through standards-aligned content and demonstrate their learning through computer -and teacher-scored assignments.

**This course is built to state standards.**





# World History Grade 6

In World History, students learn to see the world today as a product of a process that began thousands of years ago when humans became a speaking, travelling, and trading species. Through historical analysis grounded in primary sources, case studies, and research, students investigate the continuity and change of human culture, governments, economic systems, and social structures.

Students build and practice historical thinking skills, learning to connect specific people, places, events and ideas to the larger trends of world history. In critical reading activities, feedback-rich instruction, and application-oriented assignments, students develop their capacity to reason chronologically, interpret and synthesize sources, identify connections between ideas, and develop well-supported historical arguments.

Students write throughout the course, responding to primary sources and historical narratives through journal entries, essays and visual presentations of social studies content. In discussion activities, students respond to the position of others while stating and defending their own claim. The course's rigorous instruction is supported with relevant materials and active learning opportunities to ensure students at all levels can master the key historical thinking skills. This course is built to state standards.

