

8th Grade Course Descriptions

Physical Science with Lab (option to complete extra assignments for high school credit)

Through this course, students take an in-depth investigation of the basic concepts of physical science. The course includes such topics as the atmosphere, the hydrosphere, weather, the structure of the earth, environmentalism, the physics of motion, Newton's Laws, gravity, and astrophysics. The relationship between physical science and everyday life is explored through biweekly laboratory experiments and application exercises. The course will include daily reading and chapter exercises. Students will be tested on their knowledge of textbook material after the completion of each of the 16 modules.

Text/Materials Used:

- Purchase [Exploring Creation with Physical Science](#), 4th edition, Apologia, Vicki Dincher, ISBN: 9781940110141
Textbook ONLY

Prealgebra

The content of the course consists of an introduction to many algebraic topics that will be covered in more detail in Forester's college prep Algebra 1 course. High school math introduces a lot of new topics quickly. Prealgebra provides a first introduction to many new ideas that can make the transition easier. Topics covered in this high school prep course include expressions, graphing linear equations, slope, negative rational numbers, proportions, the Pythagorean Theorem, ratios, integers, percent, geometry, probability, and statistics. This course includes two texts and free video lessons. There are also additional worksheets available for students who need extra practice. This course adopts a mastery approach to learning Algebraic concepts through spiral learning, testing, and repetition.

Text/Materials Used:

- [Pre Algebra](#) by Derek Owens is provided by TandemEDU. The complete curriculum includes lecture videos, student workbooks, practice problems, and solutions. The class fee below covers the curriculum expense, including printable PDF versions of the workbooks. Workbook pages will be needed weekly in class.
- **OPTIONAL:** You can purchase the [semester 1 workbook](#) and the [semester 2 workbook](#) in print versions.

If your student has completed Prealgebra, please note:

The TandemEDU Algebra 1 course is an extremely rigorous college prep math course. Students need a strong foundation in Prealgebra to be successful in this course. If you are considering skipping the TandemEDU Prealgebra course and enrolling your student in the TandemEDU Algebra 1 class, contact christine@tandemedu.org to take our online placement test.

English 8 (Grammar/Composition/Literary Analysis)

In this comprehensive, high school prep English course, students will review sentence structure, identify sentence errors, and construct compound/complex sentences. Grammar lessons combined with a daily grammar review will solidify the grammar concepts necessary for high school-level writing. Through the writing process (prewrite, draft, revise, edit, and publish), students will learn the mechanics of dialogue, logical paragraph construction, figurative language, sequencing events, and using details and transitions effectively. Through practice writing essays (narrative, descriptive, expository), a research paper, and a business letter, students will learn effective composition skills necessary for high school, college, and career success. Students will also be exposed to the Modern Language Association (MLA) formatting guidelines necessary for high school-level writing. The literary analysis component will focus on Literary analysis across the curriculum by exploring short stories and short works of nonfiction, such as excerpts from biographies and autobiographies, as well as informative articles, propaganda techniques, and narrative. Using primarily short works to analyze literature allows students to focus on literary elements and active reading skills individually in short, easy lessons

and activities. In this course, students are taught to analyze literature not only for its literary value but also as a way to connect with authors, characters, events, and places. Students will be challenged to become better readers, writers, and critical thinkers as they prepare for college and careers.

Text/Materials Used

- *Essentials in Writing 8* is provided by TandemEDU.
- *Essentials in Literature 8* (workbook only): <https://www.rainbowresource.com/066468.html>
- *Easy Grammar Plus Student Workbook* ISBN: 9780936981147. <https://www.rainbowresource.com/037848.html>

TandemEDU provides a subscription to Office 365 and Grammarly editing software for every student.