

Math

Math classes meet twice a week on Tuesdays and Thursdays for 65 minutes. Homework assignments are designed to take on average 70 minutes per assignment, each one usually consisting of learning a lesson, taking notes, and completing the problems. Parents will have access to the solutions and will grade their lesson assignments and go over corrections with their student. Parents will initial the homework once it is completed. The teacher will publish the homework at the beginning of the week to allow students and parents an opportunity to plan their time according to their schedules, with one assignment being due on Thursday and the other due the following Tuesday. Projects are mixed in with each quarter and have ample time to complete them with support from the teacher.

Saxon Pre-Algebra

Saxon Algebra 1/2, also known as Pre-Algebra, focuses on introductory Algebra concepts, facilitating from the concrete concepts of arithmetic to the abstract concepts of Algebra. Students will continue in their introductory studies of geometry, such as working with area, perimeter, and volume. They will work on quarterly projects that will enhance and apply what they are learning in real life, cross-disciplinary opportunities. Some student favorite projects include gathering data and creating graphs in Google Sheets, designing and building a gingerbread house then using the creations to calculate concepts they have learned, apply knowledge of the Cartesian coordinate system to not only complete a design but create their own on the coordinate system, applying distance, rate, and finance concepts in a research travel project in which they present to their class, and creating their own math game. Our class is filled with hands-on collaborative experiences including discussions and learning to work in ways that support each other.

Saxon Algebra 1

Saxon Algebra I concentrates on teaching the fundamental aspects of problem solving, which is simply the application of mathematical concepts in new situations. During this course, we will also continue the study of area, volume, and perimeter of geometric figures that began in *Algebra 1/2*. Completing this course will provide your student with half of their High School Geometry credit in addition to a full year of Algebra I credit. Students will work on quarterly projects that will enhance and apply what they are learning in real life, cross-disciplinary opportunities. Some student favorite projects are creating a math dictionary, designing and building a gingerbread house then using the creations to calculate concepts they have learned, applying knowledge of area and volume in order to design and create a new juice box prototype, and learn how to utilize Google Sheets to create an interactive Choose Your Own Path story that incorporates a fictional story that uses math concepts to find their way out. Our class is filled with hands-on collaborative experiences including discussions and learning to work in ways that support each other.

Saxon Algebra 2

Saxon Algebra II continues the study of topics from Algebra and Geometry and begins the study of Trigonometry. We continue to dive deeper into the abstract study of the interrelationships of numbers. Completing this course will provide your student with the second of half of their High School Geometry credit in addition to their Algebra 2 credit. Students will work on quarterly projects that will enhance and apply what they are learning in real life, cross-disciplinary opportunities. Some student favorite projects are utilizing Desmos and knowledge of graphs to design and create an image within the program, designing and building a gingerbread house then using the creations to calculate concepts they have learned, utilize YouScience results along with other resources to research two possible career paths they are considering and present to the class, apply knowledge of trigonometry skills by designing a Barbie zipline that will launch from the roof of the school building (don't worry, only the teacher goes up and the students measure and catch Barbie from the ground), and sign up to learn and teach a class lesson. Our class is filled with hands-on collaborative experiences including discussions and learning to work in ways that support each other.

Saxon Advanced Mathematics

Saxon Advanced Math, also known as Pre-Calculus, contains an in-depth coverage of Trigonometry, Logarithms, Analytic Geometry, and upper-level Algebraic concepts. This course will produce a significant increase in the number of students who succeed in Calculus, Physics, and Chemistry either in High School or College. Because of the emphasis on problem solving and the development of productive thought patterns, it is also an excellent course for students who will study the social sciences. Students will work on quarterly projects that will enhance and apply what they are learning in real life, cross-disciplinary opportunities. Some student favorite projects are designing and creating a creative unit circle, designing and building a gingerbread house then using the creations to calculate concepts they have learned, upload images of real life parabolas into Geogebra to write the equations then build and use a catapult to hypothesize and test parabolas in action, and to create a mini video encouraging and giving tips to incoming students. Our class is filled with discussions and learning to work in ways that support each other.