

**SUMMIT MIDDLE SCHOOL CORE COURSE DESCRIPTIONS**  
**2011-2012**

**ENGLISH DEPARTMENT**

Summit offers a literature-based curriculum that introduces students to a variety of high-quality works. Each course focuses on responding to and analyzing written works both orally and in writing, with strong emphasis on the writing of essays and other full-length products. In addition, the English department has developed a scope and sequence for grammar study at each level with additional topics introduced or re-taught as necessary. It is the intention of the English department to provide students with the powers of analysis to make reading and writing about literature a meaningful experience, as well as to create engaging experiences with literature that will foster life-long reading pleasure. Students are asked to purchase *Writers Inc.* to use as a resource if they do not already own a copy.

**English Level I**

English I is the first step in students' journeys toward being effective, stylish writers and autonomous, appreciative readers. In this course students will read, discuss, and respond to a variety of literary works and will learn not only to comprehend them, but also to interact with them on a deeper, more analytical level. In writing, students will master the cohesive, content-rich paragraph and make the transition to the five-paragraph literary analysis essay, as well as begin to develop individual style in both creative and expository pieces. To support students as they become correct speakers and writers, vocabulary, grammar, spelling, and usage will be taught in short instructional units throughout the year and will be reinforced as part of instruction in writing.

**English Level II**

English II continues the rich literary journey begun in English I. Response to literature includes comprehension and analysis, as well as connection to personal experiences and contemporary issues. Students will gain greater skill and independence in identifying stylistic and structural elements introduced in English I. They will also experience a formal public speaking unit in which they learn and practice techniques to create rapport, strong delivery and coherent, stylish speech writing. As writers, students will develop their skills, supporting, organizing, and expressing ideas in the context of more extended expository pieces, including the literary analysis essay. Grammar topics include prepositions, complements and subordinating conjunctions with the emphasis on identifying and writing more complex sentence structures.

**English Level III**

Students in Level III will begin to consider universal themes and cultural context in interpreting literature. Close analysis of an author's intent and style will include references to character, conflict, symbol, setting, theme, language, and imagery. Students will broaden their writing and speaking repertoires to include a wider range of tasks, purposes, and audiences, such as persuading, sharing research findings, and entertaining an audience. Writing tasks will involve analysis of poetry and other literature, exposition of author's style, and creative writing. Students will also focus on improving their own personal writing style and command of formal English language. Grammar instruction will include sentence types and varying sentence structure, direct and indirect objects, and an advanced study of the parts of speech.

**English Level IV**

In Level IV students will respond to literature on numerous levels, considering universal themes, cultural and artistic traditions that shape a literary work, and the individual writer's craft. In addition to the literary elements introduced in earlier levels, students will respond to and analyze stories, poems, plays, and novels with respect to genre, tone, diction, and symbolism. In writing, students will continue to expand their experiences with various rhetorical purposes, including exposition of research, comparison/contrast, analysis of literary style, and narration/storytelling. Grammar and language units will focus on improvement of writing accuracy and style: vocabulary, sentence maturity and variety, and embedding information using phrases and clauses.

**SCIENCE DEPARTMENT**

The following is a description of the course offerings in the science curriculum. Students take science all 3 years, beginning with Biological Sciences and the Environment, then Physical Sciences and the Earth, followed by either Advanced Topics in Science or Chemistry/Physics. Biological Sciences and the Environment and Physical Sciences and the Earth meet the middle school Science Standards. There is a \$20.00 materials fee.

**Biological Sciences and the Environment**

This class addresses the structure and function of the cell, heredity and evolution, classification of living things, plants, animals, the human body, weather, the environment and the water cycle. This class involves exploration of the structure of organisms through dissections. Laboratory experiences emphasize the scientific method.

### **Physical Sciences and the Earth**

This course consists of two semesters taken in any order. One semester consists of an introduction to physics (material properties, energy, work, mechanics and heat). The other semester consists of an introduction to chemistry (atoms, the periodic table, chemical bonding, physical and chemical properties) and the elements of earth science (the solar system, earth structure, minerals, rock forming processes and identification, crustal deformation, plate tectonics, and geologic time). The scientific method, quantitative analysis and graphical analysis are emphasized in laboratory work.

### **Advanced Topics in Science**

This course, designed to be exploratory in nature, provides depth in the areas of physical science, life science and earth science. Major concepts and themes introduced in the core courses are reinforced and expanded upon. Emphasis is placed on the role of science in society and modern research. Topics can include water science, environmental chemistry, theories of matter, energy, mechanics of flight, local geologic history, biochemistry and genetics, electricity and magnetism, mechanics and forces. Laboratory work is emphasized. The expertise of the faculty is utilized. Participation in the school science fair is required.

### **Foundations in Chemistry and Physics**

This science course emulates the high school level pre-IB course in Chemistry/Physics. Observing relationships, identifying variables, calculating with significant figures, developing explanation through observation and analysis and laboratory methods are emphasized. Fundamental concepts of physics and chemistry are introduced and theoretical principles are emphasized. Algebra is a prerequisite, which must be completed before taking this course. Participation in the school science fair is required.

## **SOCIAL STUDIES DEPARTMENT**

The Social Studies curriculum at Summit is comprised of three core courses: World History, taken in 6th grade; American History, taken in 7th grade; and World Geography & International Relations, taken in 8th grade.

Courses are designed to integrate and build on content and skills from one year to the next. The first course in the sequence, World History, allows students to explore how the world's major civilizations from pre-history through the Renaissance. By studying a variety of historical societies and governments, students are well prepared in their second year to study the development of the United States and appreciate the unique nature of both our society and government. This second course in the sequence, American History, picks up where World History leaves off, with the European exploration of the Americas. Students follow the development of our nation from the initial contact between Europeans and Native Americans, up to World War I. This course sets the stage for the final course in the sequence, World Geography & International Relations. Armed with an understanding of both World and American History, students can now begin to analyze the complex relationships that exist between their own nation and the many other peoples of the world.

### **World History**

The World History course is designed to give students some continuity in both time and space as they begin to explore many civilizations in history which have provided a basis for their own. After a brief overview of pre-historic societies, students zoom in on the Mediterranean and Middle East to follow the development of the region for the first 3,000 years of civilization from agriculture forward. Beginning with Sumer and the early civilizations of the Fertile Crescent, they follow the rise and fall of Egypt, Greece, Phoenicia, Rome, the Byzantine Empire, and Medieval Europe. Students travel the Silk Road to India, China, and the Orient, and study the development of these civilizations over the same time period. Students then return to the Mediterranean to study the development of the European Renaissance, the Protestant Reformation, and the Scientific Revolution.

### **American History**

American History begins with the Age of Exploration. Students trace the early history of our nation back to the clash of three continents: Europe, North America and Africa. From this point, students analyze the creation of a nation through examination of such topics as the early colonies, American Revolution, and the Constitution. The remainder of the first semester follows the chronological sequence through the Age of Jackson and the development of regional differences within the United States. During the first semester, students develop and present a long-term research project in a culminating event known as History Day. In the second semester, students analyze the origins of the Civil War, Industrial Revolution, and the Gilded Age, which launched America into the twentieth century. From the Jazz Age through World War I, students develop a strong foundation of historical knowledge that may provide insight to contemporary issues in the United States.

### **World Geography and International Relations**

Last in the social studies series, World Geography and International Relations seeks to apply the skills learned in World and American history to the modern world. This course provides students with a basic framework for understanding the complex economic, political, social, and environmental relationships that define our modern world, as well as a forum for discussing solutions to specific problems facing their generation. Students will apply this new framework both at home and abroad, as we explore the field of geography through the context of real-world issues and events.

## **MATHEMATICS DEPARTMENT**

Student ability, background and motivation are used to place students properly in math courses. Teacher recommendations, performance on incoming math assessments, performance on MAP testing, and performance on baseline in-class assessments given at the beginning of the school year are all used to determine the most appropriate course placement. Parent input and preference is taken into account, however it is only one criteria. Students should be encouraged to take the most challenging course in which they can succeed, but care should be taken to avoid putting students in a “no-win” situation where they are unable to comprehend and master the content.

### **Pre-Algebra**

Pre-Algebra is designed for students who possess a solid understanding of place value and computational fluency and are ready to further develop proportional thinking skills. Pre-Algebra helps students to build on their computational skills as they transition into algebra. Topics include number theory; integers; numerical and algebraic expressions; equations in one variable; fraction and decimal computation; perimeter, area and volume; data analysis; and ratio, proportion and percent.

### **Algebra A**

This course gives students a thorough foundation in the basic concepts of algebra. The following topics are covered in depth: linear equations, systems of equations, polynomials, radical expressions, factoring, quadratic equations, and working with exponents. This is the first part of a two year course, which should be followed by Algebra B/Introduction to Geometry.

### **Algebra B/Intro to Geometry**

This is a follow-up course to Algebra A. It is intended to strengthen and round out students' knowledge of algebra while introducing the basic principles of geometry. Topics include probability, rational and radical expressions and equations, inequalities, basic trigonometry, introduction to proofs, area volume, geometric transformations, parallel lines, transversals, congruent and similar triangles, and parallelograms.

### **Pre-Algebra Honors**

Pre-Algebra Honors is designed for the student who excels in math. To succeed in this course, students need to have competence in basic computational skills, including fractions and decimals. This fast-paced course covers the regular Pre-Algebra topics in more depth and includes additional topics, such as solving inequalities and graphing linear equations and inequalities.

### **Accelerated Algebra**

This is a fast-paced course appropriate for students who are able to understand and process new concepts quickly. This course covers all standard “Algebra 1” topics in depth and explores other advanced mathematical concepts like matrices and imaginary numbers. Emphasis is placed on polynomials, quadratic equations, systems of equations, rational expressions/equations, and advanced functions (log, exponential, composite).

### **Proof Geometry**

A high level of dedication is required to succeed in this course, as it requires students to learn a new way of thinking based on logical reasoning. The goal is to improve students' ability to think and express themselves clearly and accurately, and to learn the difference between "common sense" and a valid argument. Content of this course includes rigorous proofs based on definitions, postulates and theorems; angles and triangles, perpendicular and parallel lines and planes, polygons and their areas, similarity and congruence, coordinate geometry, constructions, symmetry and transformations, volumes of solids and an introduction to trigonometry.

### **Foundations in Algebra II and Trigonometry**

This course typically follows Proof Geometry and covers a variety of advanced topics particularly relevant to real-world applications. It is designed to prepare students for Algebra II/Trigonometry at the high school level. It includes polynomials of second and higher degrees, complex numbers, rational and irrational functions, conic sections, exponential and logarithmic functions, trigonometric functions and their inverses, infinite sequences and series, and probability and statistics.

## **WORLD LANGUAGE DEPARTMENT**

We offer two world languages: Spanish and French. Because we follow a standards-based curriculum, we emphasize all five aspects of world language acquisition. These include listening, speaking, reading, writing, and culture. We use the Communicative Approach to teaching languages, which involves creating as many opportunities as possible for students to engage in real communication. We strive to create a comfortable learning environment in which students feel at ease experimenting with the language, even if it means making mistakes. Students are expected to buy a workbook.

We have divided two years of high school level language into three years. The course titles are Beginning (Language), (Language) I, and (Language) II.

(Note: German II will be offered in 2011-12 only.)