

**MIDDLE SCHOOL  
CURRICULUM GUIDE  
2016 - 2017**

**1:1 iPad Program**

The Middle School is the focus of our one-to-one (1:1) iPad program with every student in grades 5 through 8 using an iPad in each of their classes for assignments, projects, and homework. Students use their iPads on a varied list of activities, including working collaboratively with teachers and classmates on documents and essays, interacting with mathematical equations and graphs, creating and recording plays they have written, creating movies and presentations, and using the iPads in conjunction with scientific probes to measure speed and temperature. By bringing iPads into the classroom, every student is given access to the limitless resources of the Internet and can benefit from using these technologies as they learn and grow during these formative years.

**5<sup>th</sup> Grade**

English

Fifth Grade English emphasizes the cross-curricular skills of reading comprehension and fluency, writing, editing, publishing, vocabulary, and critical thinking. Students are introduced to the different narrative forms, sentence structure, grammatical constructs, and paragraph formation. Spelling patterns and vocabulary are taught based on our study of Greek and Latin roots. Students have the opportunity to develop their reading and comprehension skills through literature that connects to content in history and in science. Novels include *Pedro's Journal*, *Pocahontas and the Strangers*, and *Hoot*. Students also have a choice of novels focused on The American Revolution and Westward Expansion. Students are also offered choice when preparing for their book reports, enjoying one pleasure novel of their choosing each month. Assessments range from nightly reading questions to book reports, short answer quizzes, and longer paragraph reflections. While reading, students are asked to garner details and facts, building their explicit language skills, but they are also asked to delve deeper into books, questioning characters' motivations.

Math

Fifth Grade Math is designed to cultivate mathematical understanding and competency through the study of numbers and operations, algebra, geometry, measurement, data analysis, probability, and problem solving. This study includes estimation and calculation, fractions, decimals, percentages, and ratios. Students are also introduced to fractional multiplication, division, percentages and rates. Problem solving is used to develop higher order thinking while showing understanding of computations.

Science

Fifth grade science is a place-based experiential class that introduces students to Natural and Environmental Science through hands-on exposure to the outdoors, scientific inquiry, creative and critical thinking skills, and problem solving. The class exposes students to scientific concepts, terminology, and the Scientific Method by using the natural world as the integrating context. Over the course of the year, students gain a greater understanding of how natural processes work and how human beings impact those cycles. Assessment goes beyond formal tests. Students construct a portfolio assessment in the form of a Nature Book based on South Carolina's outdoor world. All in-class lessons are reinforced as the Nature Book serves as a study guide for the content covered. The Nature Book integrates science with other content areas and skills including history, math, writing, art, technology, research, and following rubrics. Lastly, students use their skills to connect to the outdoors by designing a natural setting, working in the greenhouse, and maintaining our educationally-themed gardens across campus.

### History

The 5th Grade history course is a study of early American history. Beginning with a unit on the migration of the Paleo-Indians, the course then examines explorers and their travels to Canada, South America, and North America. Students reflect on the desire and need to explore, developing an understanding of charters and territories. Using timelines and sequencing, the class will delve into an in-depth study of North America from the Colonies and the American Revolution through the Civil War. This class parallels the study of novels in English that are closely connected in themes and topics. Students think deeply about the inspirations and consequences that motivate historical figures. Students make connections by comparing and contrasting various cultures, looking at cause and effect, and examining the role and value of natural resources in building a stable nation.

### Spanish

Fifth Graders continue to build their Spanish vocabulary and grammar. Students have the opportunity to become proficient in the oral aspects of the language by listening and speaking. Understanding the variety of Hispanic countries and their unique cultures is another focus of 5th Grade Spanish. Students learn about the traditions of these countries by doing projects and learning songs and dances. Fifth grade students have Spanish class twice a week.

### Enrichment

In Enrichment, students focus on several facets of middle school life, including goal setting, organization, reading comprehension practice, and study skills. Students use the time together to create vocabulary flashcards, to organize binders, to record deadlines in agendas, and to simply discuss ways to approach larger tasks. Students learn about stress management as well. Enrichment is shaped to meet the needs of the grade as the year unfolds and as the core teachers identify needs of the class with regard to core curriculum.

### Library

The Fifth Grade classes go to the library once a week for the entire school year. The students learn how to use the library catalog and how to find items on the shelves. They also learn, in conjunction with classroom assignments, how to research topics using a variety of sources including print, electronic databases, and the internet. The students are introduced to the works of many authors and genres in both fiction and non-fiction, which helps deepen their proficiency in and enjoyment of reading. Fifth Graders explore the richness of middle school literature throughout the year.

### Religion

Fifth Grade classes study the Episcopal Church's Book of Common Prayer, which is used in all Heathwood chapel services. Lessons include learning the Seasons of the Christian year, how Easter is determined, and how the Lectionary is used by the Episcopal Church. Students also study prayer. They learn about the different kinds of prayer and then write their own prayers. Regular discussions about the chapel services give students the opportunity to ask questions about Heathwood's religious and spiritual practices and about religion in general.

## **6<sup>th</sup> Grade**

### English

In sixth grade, students will be immersed into a study of vocabulary, spelling, grammar, writing, and literature. Our vocabulary study looks at Greek and Latin roots and how they form the basis for many of today's words. Prefixes and suffixes are studied in depth along with common spelling rules. As the Middle School we intentionally scaffold our study and instruction of grammar to reflect the learning stages of emerging adolescents. The levels of mastery for grammar and writing vary based on a student's reading level, maturity level, and ability to think abstractly and critically. We will write frequently in class using different modes of writing, including expository and narrative writing. In sixth grade, students begin to learn the longer essay structure and to refine their editing skills. The 6th grade writing curriculum is structured around the ROOTS project and includes many types of writing encouraging students to write about the subjects they know best—themselves and their family! During the year, we will read four novels as a class, which have been chosen to enhance the history curriculum. We visit the library and read biographies and historical fiction, but also find time for “free reads” as well. Students are also encouraged to read many of the South Carolina Nominees through the year. Students review literary elements throughout the year. There are several projects in the 6th grade including the ROOTS project. The ROOTS project is a year-long writing endeavor where the students do an in-depth study of their families. The culmination is a scrapbook that will be presented in the Spring. Other smaller projects include creating an iMovie that goes along with Tom Sawyer, creating a snack made from prefixes, roots, and suffixes, and Guess Who's Coming to Dinner at the end of the year. Sixth grade English is designed to take all students where they are and prepare them for what is to come.

### Math

Sixth Grade Math introduces students to all operations with whole numbers, fractions, decimals, and integers. This is year to review and master math facts, concepts related to decimals and fractions, as well as introducing algebraic concepts and exposure to problems that encourage higher order thinking skills. Students learn measurement with both standard and metric systems, perimeter, area, surface area, volume, angles, and angle relationships. Students cover probability, ratios and percentages, statistics and graphing. A variety of class projects reinforce skills and applications. In addition to sixth grade math, some students are invited to take 6th Grade Pre-Algebra. This course is designed to provide the transition from arithmetic to algebra and geometry. Problem solving is emphasized throughout the course. Heavy emphasis is placed on patterns, relationships, and functions as well as working with algebraic expressions, equations and inequalities.

### Science

Sixth grade science introduces students to Earth Science. The course expands upon the elements of scientific inquiry, scientific concepts and terminology, the Scientific Process, and laboratory use. The skills are developed through an interdisciplinary study of geology, aquatic and terrestrial ecosystems, weather, geology, and geologic time. Creative and critical thinking skills are further developed through project based instruction and interactive notebooks. Technology is utilized for research and assessments, and experiential activities are incorporated throughout all investigations and topics of study.

### History

Sixth Grade history focuses on our roots as a country and as individuals, as well as the connections between events in history. Using timelines and sequencing, the class does an in-depth study of Reconstruction after the Civil War to present day. In addition, students study their family histories through interviews, family folktales, poetry, family trees, recipes, and self-reflection, culminating in a year-long Roots Exhibition.

### Modern and Ancient Language

Students choose either Latin or Spanish in the sixth grade. These classes meet three times per week.

Sixth Grade Latin is an introductory course in which vocabulary, derivatives and grammar are emphasized and studied through the lens of the ancient Romans in Pompeii in 79 A.D. Students also learn to conjugate verbs in the present, future and imperfect tenses, and to decline nouns in the nominative, dative, accusative, and ablative cases.

In Sixth Grade Spanish, students study vocabulary and structures useful to describe themselves and their world. Basic grammatical concepts are introduced with the objective of developing strong listening, speaking, reading and writing skills. There is an emphasis on oral communication with an ultimate goal of using simple Spanish in different contexts. Students identify elements of culture from the countries in which Spanish is spoken.

### Library

The Sixth Grade is divided into four groups, each of which has library class once a week for one quarter. The students refine their catalog search skills and review using multiple sources for research projects in conjunction with class projects. The students are introduced to authors who write for older middle school students and are encouraged to read more challenging books in both fiction and non-fiction to increase their reading proficiency and enjoyment.

### Religion

Sixth Grade classes study the Episcopal Church's Book of Common Prayer, which is used in all Heathwood chapel services. Lessons include learning the Seasons of the Christian year, how Easter is determined, and how the Lectionary is used by the Episcopal Church. Students also study prayer. They learn about the different kinds of prayer and then write their own prayers. Regular discussions about the chapel services give students the opportunity to ask questions about Heathwood's religious and spiritual practices and about religion in general.

## **7<sup>th</sup> Grade**

### English

Seventh Grade English is an integrated reading and writing approach to benefit all phases of language development. Vocabulary study incorporates words from our literary selections, along with the vocabulary workbook. Our grammar/usage study provides practice in parts of speech, sentence structure, verb forms, and subject-verb agreement, along with speaking, listening, and writing skills. Students learn the ten-step approach to research writing, incorporating key elements for organizing and revising their research papers. The following books provide the core of our literature reading: *The Outsiders*, *The Hobbit*, *Devil's Arithmetic*, *The Moon is Down*, *Small Steps: The Year I Had Polio*. Other selected readings that support our development of The Hero's Quest include *To Be A Hero*, *Best Short Stories*, *I Never Saw Another Butterfly*, and *Smoke and Ashes*.

As students read our class novels, they are given comprehension questions to complete using their iPad or paper. The novels also have a detailed study guide for review before the test, so students can practice the literature analysis writing prior to the test. Our grammar study follows a scaffold approach in mastering the four levels of grammar, with each level building and

reinforcing the other. Students enjoy reviewing these concepts in our “board challenge” game which also serves as the study guide. Our writing practice continues the workshop pattern of brainstorming, rough draft, revisions, conferencing then final draft using a detailed rubric for the format of that writing. Students complete vocabulary cards which reinforce the grammar and usage of the word as we connect the vocabulary words to our grammar and literature study. This year students will create and publish a “hero” book for their Lower School buddy, taking their study of the Hero’s Quest by Joseph Campbell into their own writing.

### Math

The goal of Pre-Algebra 7 is to prepare students for algebra and geometry while reviewing the basic math skills taught in Fifth and Sixth Grades. Students transition from concrete to abstract mathematical operations through games, lectures, manipulatives, group work, drills and practice. Communicating mathematically is a focus of the class, as students work in groups, explaining solutions verbally to classmates, and/or writing explanations for solutions.

In Algebra I, students learn traditional algebra topics, including number systems, linear and quadratic equations, polynomial, rational, and radical expressions, factoring, equations, inequalities and systems of equations and inequalities. Emphasis is placed on the solution of word problems and the development of problem-solving skills. Algebra I provides high school credit based upon a student’s ability to pass the class with a B+ (87%) average or better.

### Science

Seventh grade science exposes students to a wide variety of topics in life science including organisms and processes that occur at microscopic levels; genetics; classification, anatomy, and physiology of living things, virus, bacteria, and disease. Students practice organization, attention to detail, precision and accuracy, generation of meaningful questions and connections, research, data collection and analysis, laboratory safety and procedure, and wrestling with unfamiliar ideas and concepts. Material is presented during classroom discussions and activities, homework assignments, collaborative lab activities, and student-led independent projects. Students keep a lab notebook throughout the year. Labs include observation of living plants and earthworms; dissection of earthworms, starfish, frogs, and owl pellets, as well as a crime scene investigation.

### History

Seventh Graders take a journey around the world through their study of history. Focusing on the regions and nations of the Western Hemisphere, students critically explore the history, geography, and culture of the Earth’s citizens by asking Who, What, Where, Why and When. The course is 95%-paperless through the daily use of our iPads as well as our ever current TECHBook through Discovery Education. Over two semesters, students study the Five Themes of Geography, world geographical skills, water and climate, the people of the world and the ways they live, the countries of North America, the countries of Central America and the Caribbean, the countries of South America, the nations of Europe, and an introduction to Asia and Africa. Students also read selected articles from *CNN*, *The Christian Science Monitor*, [PBS.org](http://PBS.org), and

some reputable newspapers to keep up with the day-to-day occurrences around the world, but especially, dealing with the regions and nations we will be studying and covering throughout the school year.

### Modern and Ancient Languages

Seventh Grade students begin a language study of Spanish, French or Latin. These classes provide Upper School credit.

#### Latin 1A

Latin students, working from *Wheelock's Latin, 7<sup>th</sup> edition*, cover the grammar, vocabulary, and derivatives from chapters 1-8. They study verbs from the first three conjugations in the present, imperfect, and future tenses, nouns in the first three declensions in six cases, adjective agreement with nouns, and prepositional phrases. They apply their knowledge of the grammar and vocabulary by translating sentences and longer passages, utilizing text from ancient authors.

#### Spanish 1 A

Students study the Spanish language and culture through a variety of thematic units, including vocabulary and structures, basic grammatical concepts and communicative competence. With an emphasis on listening, speaking, reading, and writing, students work towards the goal of effective comprehension and comprehensibility. Students also study the cultures of specified regions in the Spanish-speaking world and compare and contrast these cultures with each other and with their own.

The course will be, as much as possible, conducted in Spanish so that students become comfortable hearing and using basic forms of the language. Students are required to interact with each other and participate enthusiastically in class activities.

#### French 1A

Seventh grade French focuses on communicative skills with an emphasis on speaking and listening through a variety of thematic units that include chapters on friends and family, a comparison between the French and the American school system, French cuisine and culinary traditions, leisure activities and sports. The class focuses on the National Standards for Foreign Language Learning, which emphasize communication, culture, connections with other subject areas, communities, and comparison and contrasts of different languages and customs.

### English

English 8 is primarily a study of American Literature, including short stories, drama, poetry nonfiction and novels. Students read *To Kill a Mockingbird*, *Animal Farm*, *The Pearl*, *Romeo and Juliet*, as well as various novels of their choice. Students also work on writing, collaborative learning, and research, and have various assignments and projects incorporating technology. A focal point of the class is the Eighth Grade Exhibition Research Project – a three- to five-page essay on an author, scientist, artist or mathematician of their choice. The essay must answer the question: What would the world be like without their contribution? Students work through the research process of outline, notecards, rough draft, and final draft.

### Math

In the Eighth Grade, students take one of three levels of mathematics – Transitional Algebra, Algebra 1, or Geometry, depending upon their developmental proficiency with mathematical concepts, computational ability, work ethic, and maturity. Both Algebra 1 and Geometry provide high school credit based upon a student's ability to pass the class with a B average or better.

Algebra Transition covers the first part of a high school Algebra curriculum. Students will gain mastery of basic math concepts, as well as functions, real numbers, exponents, equations, and inequalities. Upon completion, students will have the foundation they need to be successful in Algebra 1 in the Ninth grade.

Algebra 1 is for students who have mastered the fundamentals of arithmetic and are ready for a more in-depth study of functions, real numbers, linear equations and inequalities, systems of equations, exponents, polynomials, quadratic functions, and rational equations. Technology will be used to enhance the students' understanding of the concepts.

Geometry is for students who have mastered the fundamentals of arithmetic, as well as Algebra 1. Students will learn how to reason mathematically using formal proofs. Students will also study in-depth properties of parallel and perpendicular lines, congruent triangles and relationships within triangles, quadrilaterals, similarity, transformations, area, surface area and volume, and properties of circles. Trigonometry will also be introduced within an extensive study of right triangles.

### Science

Students in the Eighth Grade take Physical Science, covering chemistry in the Fall semester and physics in the Spring semester.

During the Chemistry unit, students explore the following concepts: measurement and laboratory techniques; properties of matter; atoms and the periodic table; types of chemical reactions; acids and bases; and carbon chemistry. The physics unit explores forces and motion: energy, work, and machines; electricity; and light and sound.

The *inquiry approach* and laboratory work is an essential component of the Physical Science course. Each student completes approximately 20 labs per semester.

Eighth Graders are also required to participate in a science project. Students come up with their own topic about a particular area of science, form a hypothesis, conduct research and carry out experimentation to explore their hypothesis. Students who perform well in our Science Fair are eligible to compete in further state and regional science fairs.

### History

Eighth Grade History is the study of Civics -- the rights and duties of citizenship. In this course students investigate the foundation of American citizenry, the workings of our national government, and various aspects of law, economics, and local government. Throughout the course, current events are used to stimulate discussion and relate concepts learned in class with events happening around the world. During the second semester, students participate in the Stock Market Game, which gives them the opportunity to learn about investing and personal finance and to compete with other schools across the nation in a simulated stock exchange. Beginning this year we will also incorporate lessons that directly relate to activities we will participate in on our class trip to Washington D.C..

### Modern and Ancient Languages

Eighth Grade students continue with the language they began in the Seventh Grade. One high school credit is given for the two year sequence in 7<sup>th</sup> and 8<sup>th</sup> grade.

#### Latin 1B

Continuing from their seventh grade language course of study, Latin students continue working from *Wheelock's Latin, 7<sup>th</sup> edition*, covering the grammar, vocabulary, and derivatives from chapters 9-17. They study verbs from the fourth conjugation; demonstrative pronouns and adjectives; personal, reflexive, and intensive pronouns; perfect active system of all verbs; third declension adjectives; and further uses of the ablative and genitive cases. They continue to apply their knowledge of the grammar and vocabulary by translating sentences and longer passages, including work from ancient authors.

#### Spanish 1B

Spanish continues to reinforce and build on the concepts learned in Spanish 1A. Students learn a wider variety of vocabulary and structures in order to talk about activities and daily routines. With an emphasis on oral communication and an ultimate goal of effective comprehension and comprehensibility, students use grammatical concepts to communicate needs and ask and answer questions on everyday topics. Reading and writing skills also continue to be developed, and students are asked to demonstrate evidence of personal use of the Spanish language beyond the classroom. The class will be conducted in Spanish primarily, so students will become comfortable hearing and using different forms of the language.

Students also study the cultures of specified regions in the Spanish-speaking world and compare and contrast these cultures with each other and with their own.

### French 1B

In 8th grade, students will continue to focus on oral communication. Our study will include chapters on airport, the train system, sports, hobbies, leisure activities, vacation, daily routine, and health. As in 7<sup>th</sup> grade, this class will focus on the National Standards for Foreign Language Learning which emphasizes communication, culture, connections with other subject areas, communities, and comparison and contrasts of different languages and customs.

### 8th Grade Electives

Yoga is taught as a means to promote life-long physical health and well-being. We utilize a wide variety of yoga practices to become more physically, mentally, energetically, and emotionally fit. The emphasis in this class is on asana practice (yoga poses) designed to develop flexibility, improve stability, increase muscular strength and endurance. Yoga students also learn techniques for stress reduction, breathing, concentration and relaxation. The ultimate aim of this course is to promote vibrant health, while gaining self-awareness and understanding.

### Computer Coding for Grade 6, 7, 8

What we do:

While students have access to technology in every grade and class leading up the Middle School, beginning in sixth grade students are afforded the opportunity to engage with technology in a more focused manner as they learn the basics of coding and programming.

Why it's important:

By providing students with time to learn coding we are giving them the chance to enhance their problem solving abilities, build familiarity with how computers and other technologies work, and begin developing in-demand career skills.

How the sequence works:

The sequence begins in 6th grade as students work with the iPad app Hopscotch to build simple games. While the end result is building games, students are learning mathematical concepts along the way, such as positive and negative integers, slope, and how to locate and plot coordinates on the Cartesian plane. In 7th grade students begin working with Scratch, a block programming language that was developed at MIT for the express purpose of learning the basics of coding. They use CS First, a curriculum created by Google, to guide their learning. The benefit of using CS First is that students can progress at their own pace, developing their skills as they are able, which builds confidence in those that need it while affording others the opportunity for fast growth. In 8th grade students begin programming the small invention kit MaKey MaKey.

These kits give students the chance to explore how coding and simple wiring can control lights, sensors, and computers. These courses set the stage for further classes students can take upon entering the Upper School.

### **Fine Arts (all grades)**

*Students in grades five through eight are required to choose either band or chorus.*

#### Band

Students are taught the fundamentals of their chosen instrument and music reading through classes that meet two days per week in the 5th Grade and three days per week in the grades 6-8. An emphasis on overall musicianship is achieved through preparation for performances as a large ensemble and with smaller groups. Band members have the opportunity to participate in the Heathwood Percussion Ensemble, Pep Band, Jazz Ensemble, and Chamber Ensemble as well as opportunities to participate and/or audition for statewide festivals and ensembles.

#### Chorus

The Middle School chorus program focuses on basic vocal techniques which are explored in a wide variety of musical styles, including introduction to part-singing, music reading, and theory. Culminating performances are a meaningful and mandatory component of this class. The course duration is one year.

Students will:

- Sing music representing diverse cultures
- Perform music which represents diverse cultures
- Identify and define elements of music
- Analyze the use of musical elements in diverse genres of music
- Develop criteria to evaluate a piece
- Articulate the connections between music and other subjects
- Compare and classify the role of music and musicians in diverse cultures

Assessments:

- Pre-assessments
- Checks for understanding
- Observations/Anecdotal Records
- Student questions/comments
- Personal reflections

- Teacher questions and prompts
- Performance tasks (planning, in-progress, final)
- Critiques (group discussion, written reflection, in-progress)
- Self-assessments

### Drama

Every Middle School student participates in the Heathwood Drama Program. Fifth, sixth, and seventh graders take drama class two times each week for a full academic quarter, and eighth graders have the option to take Drama as an elective for a semester. Middle school drama classes focus on the fundamentals of performance, including character creation, story-telling, improvisation, and scene work. In addition to performance skills, each grade level produces a short play in class. All MS students also have the opportunity to participate in the annual Fall Musical (5th-12th) or the Spring Middle School play . Open to all fifth through twelfth graders, the Fall Musical is a great opportunity to showcase their musical theatre talents. The Spring Middle School Play is generally a non-musical play, showcasing the talent of our students in fifth-eighth grade. Past productions include “Annie”, “The Spell of Sleeping Beauty”, “Seussical”, and “The Magical Lamp of Aladdin”.

### Art

Middle School Visual Art students are exposed to a vast array of artistic mediums covering two- and three-dimensional work. Students produce three to five pieces of high quality art through concentrated study. They also participate in an Integrated Arts project. These projects are enhanced with input from Columbia area businesses and visiting artists. Each grade level also visits The Columbia Museum of Art, touring a show relevant to their classroom studies, and participates in a hands-on studio project.

## **Physical Education**

Middle School students participate in Physical Education during their four years in the division. The purpose of the program is to engage students in a variety of activities that promote a healthy lifestyle. Students focus on developing skills such as flexibility, strength training, and cardiovascular fitness. These components of fitness are introduced through team and individual sport activities. Students also have a unique opportunity to experience the benefits of our PEAK outdoor program, located on campus. A small group of students rotate every three weeks to the outdoor education program to experience kayaking, canoeing, archery, orienteering, high and low ropes elements, and basic first aid and CPR skills.

## **Guidance and Skills**

All Middle School students participate in the Skills for Adolescence curriculum, which offers a developmentally appropriate and systematic approach for sharing and applying information to help students succeed academically, socially and vocationally. The class also focuses on what young people need to know in order to make their preadolescence an understandable and positive time. The intention is to foster an environment where positive social behavior (self-discipline, responsibility, good judgment and getting along with others) can be taught; an appreciation of others and self-knowledge can be expanded; and, problem solving and cooperation within the class can be practiced. The acquisition of these skills and attitudes contributes to the social, emotional and cognitive growth of middle school youngsters, and helps them reach their potential today and in the years to come.