



PREPARE TO SUCCEED

Middle School Curriculum Guide

The Calverton School

The Calverton School, founded in 1967, is an independent college preparatory school serving students from early childhood through Grade 12. Calverton prides itself on providing a challenging college-preparatory program in an environment that promotes honesty, tolerance, respect, and responsibility. Small class sizes and excellent student-to-teacher ratios ensure that each student is challenged in every aspect of school endeavor. Our small school size provides each student the opportunity to contribute to the larger community and helps to create an inclusive school that celebrates diversity and helps each student reach his or her potential.

The school provides students with experiences of diversity and welcomes students of all races, socioeconomic backgrounds and beliefs. The Calverton School, steeped in a solid academic tradition, educates students to have the independence of judgment, personal freedom, and strength of character so that they can become leaders with broad intellectual horizons.

Philosophy of Honor

The Calverton School is a community of respect, tolerance, and learning. In this community honor is of paramount importance, for only with honor do we prosper. All members of The Calverton School live and learn in an environment of trust. With this trust comes relief and freedom: there are no locks on lockers; there are neither hall monitors nor school bells signaling the beginnings and ends of classes. Here, each member assumes responsibility and, with this responsibility, we all enjoy shared independence. Tension will always be present in any environment that fosters independence; yet through healthy, constructive tension, we only improve and prosper.

At The Calverton School there is no external edict that delineates for us right or wrong; instead, our expectation is that each member of our community assumes a personal obligation to act honorably. Here, honor is synonymous with the Golden Rule: it is acting selflessly, respecting guests, faculty, staff, students, and oneself. To act honorably is to uphold integrity, trust, and civility. Honor is valuing each other. Never condoned are lying, cheating, stealing, discrimination, or violence, because when one commits acts that hurt or otherwise dishonor someone else, the entire community suffers. Understandably, in order to protect itself and its honor, the Calverton community will take action should this philosophy be violated.

Everyone will make mistakes—but honor, growth, and learning are the taking of responsibility for these mistakes, making any necessary corrections, and continuing forward. Be it known that we will uphold this understanding of honor, responsibility, and respect on behalf of all who enter The Calverton School.

Written by members of the National Honor Society, May 2001.

Middle School Citizenship Pledge

I pledge to treat others as I want to be treated and to uphold the Philosophy of Honor. I will value others, respect myself, my teachers and my peers; and, I will help my community. I promise to be considerate, tolerant and friendly, and I will help my peers do the same. I will be a curious learner, take pride in my work, and meet academic expectations. My mind is ready to learn, open to new experiences and focused on being a true citizen of the Calverton School.

Written by Middle School Advisories, Spring 2015.

Signature Calverton Experiences

Advisory

Advisory is a unique program focused on the whole child perspective. This program engages students across grade levels in academic skill and social emotional developmental tasks. Each student in the Middle School is assigned a teacher who serves as an advocate, guide and support person. This advisor serves as the point person for parent contact and student assistance. Weekly group meetings and the development of student-teacher relationships allow the advisor to advocate for and to guide the student through academic and developmental milestones. Advisory is the tool through which character education based on the Philosophy of Honor is conducted and important events are celebrated. Monthly themes of trust, relationship, respect, honor, community, tolerance, friendship, responsibility, and ethics form the basis for activity and discussion. Advisories interact with each other and enjoy friendly competition in annual Spirit games for the coveted Spirit Stick.

Signature Trips

An overnight camping experience starts off the school year for 6th and 7th grades. Students venture out into the wilderness with their teachers and peers to facilitate self-esteem, to foster group dynamics and cohesion. It eases students back into school after a summer respite. Students will hike, study the stars, challenge the high ropes course and kayak the Chesapeake Bay. This is a truly fun, personally challenging trip that develops group cohesion and sets a positive tone for the school year.

Similarly, the eighth grade students voyage to Williamsburg, Virginia, to commence their study of Colonial America. This trip allows students to demonstrate independence and leadership, while experiencing what life was like in the seventeenth century. Students will engage in programs to learn about the life of a militiaman, colonial dance, and they may participate in a mock court proceeding. Highlights of the tour include making bricks, visiting the Public Gaol, the Governor's mansion, and the Magazine and Capital buildings.

In the spring, the 7th grade challenges Old Rag Mountain on a one-day hiking expedition. This strenuous hike in Shenandoah National Park exposes students to local geology, as Old Rag is one of the few examples of igneous formations. Students must support each other and work together to maneuver through challenging rock formations in order to reach the summit. At the summit, sweat gives way to exhilaration and a true sense of accomplishment. This trip truly allows students to overcome obstacles, foster a sense of community, and focus on teambuilding.

Research Expo: A Personal Project

Research Expo is an interdisciplinary investigation that involves planning, writing, project development, and presentation. This experience is designed to promote curiosity and to provide a holistic approach to learning that prepares students for the rigors of the International Baccalaureate Diploma Program. Teacher-mentors guide students through multiple steps including topic selection, researching, writing a formal paper, and project design. Students learn to search for, apply, and analyze information as well as how to evaluate sources, take notes, outline, and revise. The inquiry process teaches students to delve deeply into their topic and to integrate and organize information into a formal written research paper. Each grade will participate in this investigation in a designated quarter. The experience culminates in an Expo event, where students will share their knowledge through oral presentations and interactive projects to engage the visitors.

Honor Recognition

Middle School students are nominated by their peers and/or teachers to receive recognition for living the Philosophy of Honor. Each week, nominated students will receive a gift from the honor box. One citizen of the Month will be awarded a special citizenship pin during a Middle School assembly.

Recess

Recognizing the important need for Middle School-aged children to have a chance to burn off energy, we provide daily recess after lunch. All students are supervised outside (or in the gym if weather is poor) and allowed a social and physically active break from academics.

School Dances

A wonderful way to develop social skills, the MS schedules several dances each year complete with music, lights and food. Student Council leads the planning process, and faculty members rotate chaperoning. Dances can range from dress-up to costume, based on their chosen theme.

Leadership

Student Council

Middle School students may choose to run for election as a class representative or an officer of the Student Council. Student Council leads weekly assemblies, plans events including dances and spirit activities, serves as representatives at open houses and school events.

Admissions Ambassador

Students may apply to be a Student Ambassador for prospective families. Ambassadors will give tours, host visiting students, and represent the School at Open Houses and admissions events.

Testing

Scholastic Reading and Math Inventory:

The SRI and SMI are benchmark reading and math assessments given at designated intervals during the academic year. The SRI is a computer based reading bench-marking test intended to assess the student's comprehension at periodic points in time. Each student is rated on the lexile system designed to measure reading ability, which then matches students with appropriate level books. The SMI is a computer based math bench-marking test intended to assess the student's math concept knowledge at periodic points in time. Each student is rated on the quantile system designed to measure math content and achievement.



Athletics

Team and Club sports are available each season. Students practice Monday through Thursday and games are scheduled throughout the seasons for team level sports. Schedules can be found on the website.

Fall: Soccer, Cross Country (club) , Golf (with coach's permission)

Winter: Basketball, Swimming (club)

Spring: Lacrosse, Tennis



Electives

Electives are designed to be exploratory and experiential. As such, elective courses are graded on a pass/fail basis. Students who fail to engage productively in the work of the class are at risk of failing their elective classes. Students take two electives each quarter, one of which will be Research Expo at some point in the year. Electives often include: Painting and Drawing, Photography, Yoga, Band, Future Business Leaders, Ceramics, Intro to Acrylics, Intro to Watercolor, Chess, Bridge Building, Marsh and Stream Study, and Theater. Details are listed in the Middle School Electives section.

Middle School Curriculum Overview

Grade Six:

English 6: The Hero's Quest: A Journey of Self Discovery

History 6: Ancient History

Science: Life Science

Mathematics: Math 6

World Language: One semester each of Spanish and French Conversation and Culture

Research Expo: A Personal Project

Physical Education, Study Hall, and Electives

Grade Seven:

English 7: Conflict and Resolution in Literature

History 7: Medieval World and Beyond

Science: Earth Science

Mathematics: Introduction to Algebra

World Language: Spanish 1A

Research Expo: A Personal Project

Physical Education, Study Hall, and Electives

Grade Eight:

English 8: A Critical Approach to Reading and Composing

History 8: US History

Science: Physical Science

Mathematics: Algebra 1

World Language: Spanish 1B or French 1B

Research Expo: A Personal Project

Physical Education, Health, Study Hall, and Electives

Grade Six

Life Science

The content of sixth grade Life Science places an emphasis on the scientific method, logical thinking, and study skills. Students conduct regular experiments while learning basic biology lab procedures, such as how to operate a microscope and prepare slides. The first semester is spent investigating cells, and the structure and function of plants. During their study of plants, students conduct experiments where they track the growth rate of plants from seed to mature plant and then harvest new seeds. They also learn about photosynthesis and conduct experiments involving gas exchange, and sugar/starch production.

During the second semester students are introduced to ecology where they use an online simulator to demonstrate what happens to an ecosystem when predator/prey dynamics are disrupted. Next, students study animals by looking at several different animals in order to describe how their anatomy aids their survival. Students work with partners to engage in dissection as well.

In the final unit, students study human anatomy. Several body systems, including the reproductive system, are covered during this unit.

English 6: The Hero's Quest - Journey of Self Discovery

English 6 serves as an introduction to practice in essay writing and analytical thinking. The theme of this course is The Hero's Quest: Journey of Self-Discovery. The course begins with the epic "quest" and then move on to a more contemporary works, *The Giver*, where students consider how the protagonist's quest constitutes a journey of self-discovery. To personalize their studies, students engage in a variety of language arts activities which lead them to reflect on themselves as well as the literary works they are reading.

Writing, discussion, vocabulary and grammar are integral parts of our study, and these are woven through the fabric of the course, rather than taught as separate studies, reflecting both content and themes. Students engage in self-paced grammar study using IXL, an online resource for the practice of language arts. Students review for tests using Quizlet and online audio program from Vocabulary Workshop.

History 6: Ancient History

Our Ancient History curriculum unfolds in six units: Early Humans and the Rise of Civilization, Ancient Egypt and the Middle East, Ancient India, Ancient China, Ancient Greece and Ancient Rome. Students spend the year exploring ancient cultures and the religions they practiced. They focus on skill development areas such as mapping, sequencing, cause and effect, compare and contrast paragraphs, analyzing primary and secondary sources and critical analysis. Students engage in independent research projects and group research presentations. In addition to the study of history, and to help ensure differentiated learning, students participate in Socratic dialogues on topics that dovetail the themes and concepts they study. Emphasis is also placed on the geography of the modern day country, region and continent where the ancient civilization occurred. Through the integration of technology students are able to accurately identify the countries of the pertinent continents.

Mathematics 6

Math 6 builds on and reinforces the understanding and skills which students developed through their work in Lower School Math. The goal of the course is to solidify students' deep understanding of relationships between, and equivalence of, different numerical representations such as whole numbers, decimals, fractions, and percent in preparation for Introduction to Algebra, where it is expected to be understood. The work students do will also reinforce and further develop their computational competence, without the aid of a calculator. Students are introduced to exponent notation, square roots, prime factorization, and computation with positive and negative integers. A sense of number patterns is enhanced with the introduction of variables, algebraic expressions, and solving one-step equations. Exploration of basic geometry of two-dimensional and three-dimensional shapes, such as surface area and volumes, gives another avenue for practicing basic computation while exercising visual and spatial skills. The introduction of the coordinate plane and plotting points using ordered pairs leads to using functions to generate ordered pairs and plotting lines on the coordinate plane. Twice each quarter, students work in groups to solve puzzling problems, like "How much soda do we need for the Middle School dance?" and then write an explanation of their answer and a summary of their problem-solving strategies.

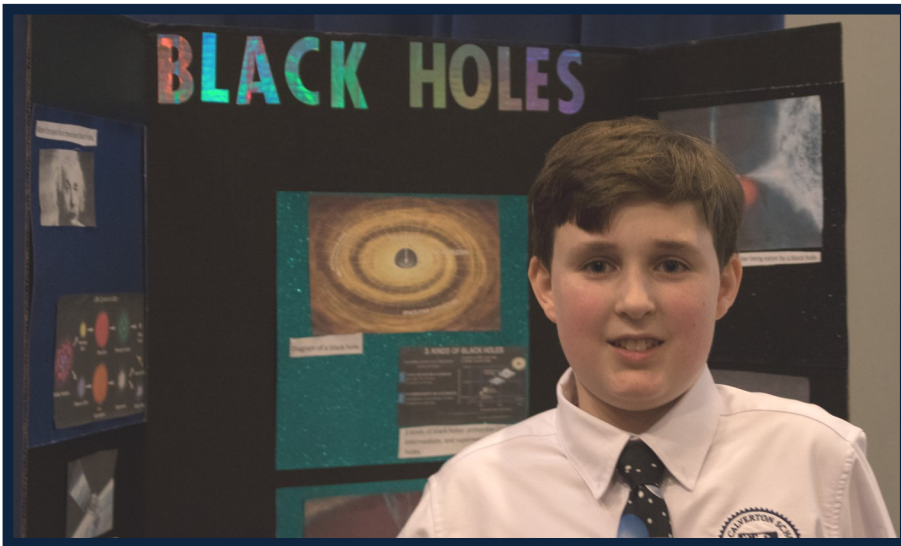
Grade Six

Research Expo: A Personal Project

The focus in sixth grade emphasizes the basics of managing time in a big project, finding resources, taking notes, organizing information, outlining a 3-5 page paper, and practicing formal written English. Teacher-mentors guide students through skills of speaking with the public, explaining their research, answering questions, and engaging visitors in their interactive demonstrations. Research Expo is an interdisciplinary investigation which involves planning, writing, project development, and presentation. This experience is designed to promote curiosity and to provide a holistic approach to learning that prepares students for the rigors of the International Baccalaureate Diploma Program. Sixth grade students engage in the Research Expo in their fourth quarter to give them the opportunity to experience the 7th and 8th grade projects prior to the start of their own.

Spanish/French

Sixth grade students take a Spanish and French course designed to introduce the two languages. The language, traditions, and culture of French and Spanish speaking countries are the focus. Topics include basic conversation, regional studies, and cultural awareness. Students are engaged in activities and encouraged to participate in oral discussions to practice their language skills. Through story, projects, mapping and games students gain a foundation for selecting one of these languages to study in subsequent years.



Grade Seven

Earth Science

The seventh grade curriculum focuses on earth and environmental sciences. This course introduces students to the varied processes of the planet while simultaneously allowing them to experience, visualize, and draw their own conclusions about the world around them.

Students utilize hands-on experiences to observe and test these processes. The year starts with an introduction to astronomy and the formation of the universe, which then segues to the study of the formation of planets and the moon. Students conduct an experiment using a Fresnel lens in which they harness the power of the sun into a single focal point to show how much energy is produced. Classroom discussions revolving around the early Earth's atmosphere and what changed to make it habitable for life.

Next, students study the theory of plate tectonics and the role it plays in earthquakes and volcanic eruptions. Volcanic eruptions are simulated in class.

Followed by oceanography and the ocean's role in the global climate are studied. A greenhouse effect lab is conducted where students collect data to demonstrate how an enclosed space traps heat. A STEM-based project is presented to the students requiring them to take on the role of a coastal engineer and protect houses from the sea. Climate gives way to a unit on weather. Lastly, geology is discussed in a unit that culminates in our day trip to Old Rag Mountain in Shenandoah National Park, where students identify several different rock samples using a key.

History 7: Medieval World and Beyond

History Grade 7 is the lynchpin connecting the ancient and modern worlds. The course of study is the medieval world, with an emphasis on the roots of Western civilization by essentially tracing the Silk Road.

The year begins with a discussion of: *DK Eyewitness Books Medieval Life* to create a firm reference base. Then, we move into the first semester's units, each of which builds upon the previous: The Rise of Pax Romana and the Roman Legacy, The Decline of Rome and Rise of Christianity, and the Inheritors of the Roman Empire- Feudal Kingdoms in the West, The Byzantine Empire, the Rise of Islam. The semester finishes with an investigation of the influence and innovations of the cultures and kingdoms of West Africa.

The second semester continues the historical path eastward, to the roots of the Silk Road. The units encourage students to make connections to similar themes seen in the first semester, and to make comparisons, as well as to build

cause and effect connections between events across space and time. The units include: The Rise of Imperial China, Cultural Collision in the East and the Ming Dynasty. The focus then moves westward to explore the civilizations of the Americas. As time allows, students examine Europe's Renaissance and Reformation.

Through each of these units, students learn about the remaining major world religions, thus providing the canvass for 7th grade students begin to analyzing primary source literature with a critical eye. Students learn to read closely for meaning, to take apart and annotate passages in the text, and to write academically with an awareness of their audience and purpose. Students work to craft formal thesis statements.

To deepen the study, students engage in both independent and group research projects which help them to focus on the elements of history including: cause and effect, change over time, the Eight Traits of Civilization, and the more abstract Five Themes of Geography.

English 7: Conflict and Resolution in Literature

English 7 studies literature and writing in a variety of contexts, with the overall goal of fostering critical thinking skills across all areas. Conflict and Resolution in Literature bridges the study of language arts and social studies through the study of theme. The course focuses on the concept of "the other" in society, and explores the ways in which seeing others as inherently different as ourselves leads to conflict.

Students learn to read closely for meaning as they annotate passages in the text. To personalize their studies, students engage in a variety of activities which lead them to reflect on themselves and the literary works they are reading. We dovetail the study of literature and history for selected social studies units where a relevant literary work is read and discussed. As students explore Islam and the Middle East in History, we read in English 7 *One Thousand and One Arabian Nights*, retold by Geraldine McCaughrean. Other historical units of study will mesh with literature studies by theme. As students learn of class distinctions in Medieval China, they read in *The Outsiders*, by S.E. Hinton, which explores a similar conflict in the United States.

Vocabulary and grammar mini-lessons are woven throughout the course, and reflect both content and theme. Students engage in self-paced grammar study integrating technology through an online resource.

Grade Seven

Mathematics: Introduction to Algebra

The seventh grade math class builds on the work students do in 6th grade, in particular the use of variables, exponents, and graphing. Students practice converting word problems to algebraic expressions and equations and then using these to solve problems. The use of the distributive property is expanded and applied to multiplying algebraic expressions, which leads to the concept of “like terms” and the idea that these can be conveniently combined to simplify expressions. Solving equations leaps from one-step to multi-step equations, having variables on both sides. After working with equations, the same thought processes are applied to solving inequalities in one variable and graphing their solutions on number lines and the coordinate plane. Student understanding of exponential notation is expanded to include the rules of exponents, zero and negative exponents, and scientific notation. The equivalence of fractions and percent is applied in real-life situations involving proportions, simple interest, price discounts, and percent change. The year ends with an introduction to linear functions. At the end of this course, students will be well-prepared for the Algebra I course.

World Language: Spanish A or French A

Students will begin their study of their selected world language.

Spanish A

In Spanish A students research a culturally themed project about a Central Plaza in a Spanish-speaking country. They research the plaza, its historical and cultural significance in the city, as well as the greater history, traditions, and culture of the Hispanic country as a whole. Students engage in mock "interviews" creating reciprocal questions to ask each other incorporating our vocabulary, games including “Liama”, “Guess Who”, create video commercials.

Through projects games and practice students master the basics of conversation, reading and writing in Spanish A.

Research Expo: A Personal Project

7th grade students undertake Research Expo in the first quarter, with their Expo event late in October. The focus in 7th grade builds on their previous research and writing skills with more depth of investigation and greater emphasis on citing sources. They become more confident

in their interactions with the visitors, explaining their research and engaging visitors in their hands-on demonstrations. Research Expo is an interdisciplinary investigation which involves planning, writing, project development, and presentation. This experience is designed to promote curiosity and to provide a holistic approach to learning that prepares students for the rigors of the International Baccalaureate Diploma Program.

Physical Science

Physical Science is intended to provide students with a fundamental understanding of matter and the interactions of matter and energy (changes in motion, change of phase, change in chemical composition, and conversion of energy from one form to another).

Throughout the course, students practice essential scientific skills, such as measuring and observing, hypothesizing, data collecting, graphing and interpreting graphs, evaluating and summarizing their work in lab reports, and conferencing to share results and to develop consensus. Students routinely use lab equipment, including meter sticks, triple-beam balances, beakers, flasks, and test tubes, graduated cylinders, funnels and filter paper, thermometers, stop watches, spring scales, laptop computers, Lego Mindstorms EV3 Robots and sensors, and the Periodic Table of the Elements. Students collaborate on all lab work and, several times each year, students work in small groups to carry out investigations of their own design, such as determining the density of an object brought from home, identifying unknown crystals by their physical properties, quantifying factors that affect friction, and building and programming robots to determine velocity and acceleration or to collect temperature data. Students use computers to access our online textbook and videos for reinforcement, to submit homework, to take online quizzes and tests, to record and graph data, and to experiment with online PhET simulations of buoyancy, atomic structure, motion, phase changes, and energy transformations.

English 8:

A Critical Approach to Reading and Composing

English 8:A Critical Approach to Reading and Composing, is intended to promote literacy through meaningful interactions with the printed word. Students become better writers by reading critically. This writing with greater clarity enables students to connect more deeply with texts, the world, and their own experiences.

Grade Eight

Our eighth-grade English takes a workshop approach to enable each student to develop the skills needed for a critical reader, and as a serious writer. Students look carefully at genre in order to understand how each genre places different demands upon the writer. Students read short stories, novels, personal essays, memoirs, poetry, and plays. For each unit of study, students produce their own works, writing a short story, personal essays, vignettes, poetry, and critical essays. They submit written work and read and critique the work of their peers. Homework is carefully read and graded. Class participation is assessed on the level of engagement and the ability to work cooperatively on a goal. Projects and written work is assessed according to level of accomplishment.

In addition, students engage regularly in self-paced grammar study using, an online resource for the practice of mathematics and language arts. They review for tests using Quizlet and online audio program from Vocabulary Workshop.

History 8: US History

This course acts as a capstone for the Middle School History curriculum in both topics and skills. The scope of the study returns to the broader world focus, but goes one step further by introducing the role of American History for the students' investigation. This course is designed to present a survey study of 18th Century through 20th Century United States History. The course begins with a brief look at early colonial life in both Jamestown and Williamsburg, Virginia, which parallels our three-day trip to Williamsburg. Following the trip, students begin the first semester with a study of the origins of our society from the influence of the Enlightenment Thinkers ideas, the founding of our political system, the Revolutionary War and the concept of Manifest Destiny. The year continues with the important topics of 19th Century Progress and Expansion, The Civil War and the Industrial Revolution. Students are taught to expand their communication skills, learn how to analyze primary documents and continue their writing skills that emphasize the study of America's emergence as a world power. Students are encouraged to reflect how past actions continue to affect domestic political and social developments while we discuss how they currently influence our world in a relevant perspective.

Mathematics 8: Algebra I

The Algebra I class expects students to continue developing the facility to deal with numbers and number patterns in the abstract, operating on variables as though they were numbers. Equations become more complex, incorporating multiple variables on both sides of the equation, distributing across positive and negative variables and coefficients, and using equations to represent and solve both real-world problems and hypothetical number problems, such as consecutive integer problems and area or volume problems. Likewise, inequalities include more than one variable on both sides. Students learn to graph equations and inequalities on the coordinate plane, given ordered pairs, or given a point and the slope of the line. Students then work to solve systems of equations and inequalities, both algebraically and graphically. The fun really gets going as students begin to treat monomial and polynomial expressions in ways they are accustomed to treating numbers and come to recognize patterns in the behavior of these abstract expressions: dividing, factoring, and finding greatest common factors; adding, subtracting, and using different methods to multiply polynomials. Solutions to quadratic equations are found by factoring and finally by using the quadratic formula.

World Language: French B and Spanish B

Students will take the second half of their chosen level 1 course.

Spanish B

Spanish B courses build upon the skills previously developed. They are intended to improve intercultural understanding and both written and spoken communication skills, thus opening doors to those in Spanish-speaking countries and the Spanish-speaking members of our own communities. The course will focus on listening and speaking as a means of natural acquisition, and on reading and writing as a way to extend understanding to a higher level. The year begins with an intensive preliminary review chapter, then moves into contextual studies of vocabulary that represent medical and health concerns, technology, the house and activities within the home, nature and the environment, and places and activities within the city.

Grade Eight

French B

French B makes language acquisition a natural, personalized, enjoyable, and rewarding experience. The French language and francophone culture are interwoven into other areas of the secondary school curriculum so that students form connections to additional bodies of knowledge that may be unavailable to the monolingual English speaker. For example, students use their knowledge of French language and francophone culture as a stepping-stone to a deeper understanding of geography, history, mathematics, art, music and science. In this course students will learn how to talk about themselves, their interests, their family and friends, and their daily activities in the present tense. Basic grammatical structures are recycled systematically to help students bridge from the known to the unknown. At the conclusion of this course, students are able to communicate in authentic French

about a variety of everyday situations that interest teenagers. In addition, they are able to write 5 sentences in French about their lives in memos, notes, invitations, reports, letters, and compositions. Technology and more specifically the internet, videos, and educational movies give the students a more in depth view and understanding of the francophone cultures.

Health

Making good choices is a key to adolescent health. This semester course will explore relationships, balanced diet, exercise, body image, mental health, substance use prevention, internet safety and more. Through activity, video, discussion and journaling, this required eighth grade elective will serve students well as they transition to Upper School.

Middle School Electives

Electives are exploratory experiential courses designed to promote hands-on learning, problem solving and creativity. Students sign up for two electives in any given quarter. The courses listed below are examples of courses offered based on teacher availability each semester.

Ceramics

This course is designed to provide Middle school students with an opportunity to develop their ceramic exploration and skills on a variety of levels. The exploration of the clay body in ceramics is designed to develop a strong understanding of the techniques that are used with this art form. This is the overall focus of this course. Students will learn four different types of ceramic construction techniques: coiled pottery, pinch pots, slab building, and wheel throwing. Students will be able to use a variety of tools and techniques to manipulate the surface of the clay. Some of these techniques and materials are: molding, sgraffito, wax resist, slip trailing, stamping, Mille fiord, majolica, and incising. The overall emphasis of this exploration is learning the fundamentals of using each of these mediums, as well as developing a strong design composition on the surface of each piece. In this class, we will focus on the importance of the process of ceramics as a three dimensional art form. This will include sketching, problem solving, and reflection. Each student will be required to have a Visual Arts Journal (AJ) that will be graded throughout the semester. Each Studio Project will begin with investigation and idea development in their AJ. Students will practice their design skills and techniques, research similar artists and/or cultures that are associated with the ceramic piece, develop a rough draft for ceramic piece, reflect on the process of ceramic piece, and have a final reflection of the ceramic piece. AJs will be graded after the rough draft phase and again after the final reflection phase. Students will grade their studio piece using a grading rubric designed for this course level. A final class critique day will be held at the end of each project to assess knowledge of skills and personal growth.

Research Expo: A Personal Project

Research Expo is an interdisciplinary investigation which involves planning, writing, project development, and presentation. This experience is designed to promote curiosity and to provide a holistic approach to learning that prepares students for the rigors of the International Baccalaureate Diploma Program. Eighth grade students undertake Research Expo in the 2nd quarter, with their Expo event early in January. By the time students reach eighth grade, the emphasis is on practicing and refining research skills and increasing sophistication of their written language, with papers

extending to 7-10 pages. They take pride in their interactions with visitors as they explain their topics and engage visitors in hands-on activities.

Drawing and Painting

Students develop their drawing and painting skills at a variety of levels. Exploration of materials in drawing and painting and developing a strong understanding of techniques used with these medias will be the focus of the course. Work from life is practiced and emphasized. Students will be able to use a variety of drawing materials that will include; pencil, charcoal, pen and ink, and colored pencil as well as painting materials that will include; ink, watercolor, and acrylic paint. Emphasis will be placed on learning the fundamentals of each medium as well as developing strong composition in their pieces. Projects will include portrait work, observational drawing, still life and abstract forms. There is a strong focus on the importance of the process of making art, including sketching, problem solving and reflection. Each student is required to have an Investigation Workbook (IWB) that will be graded throughout the trimester. This IWB will be used to brainstorm ideas, decide on materials being used, problem solving, and reflection. The IWB will also be a journal that we will use for individual and class critiques.

Future Business Leaders

Students will learn the basics of business through a web based Stock Market game www.stockmarketgame.org; where they will work in groups of three or four and invest a hypothetical \$100,000, striving to maintain a high performing portfolio. They will compete against other groups in the class and in other schools in Maryland. They will research major world and U.S. companies; collaborate and make buying, selling and holding decisions. Fun, knowledge and developing economic skills are natural outcomes of the simulation. Another part of the elective is managing the Otis Spunkmeyer cookie operation. Students will learn food preparation, buying, selling and marketing. They will research charities and make decisions on what organizations to make donations.

Chess and Strategy Games

Students will learn and develop in the game of Chess. Chess has proven to develop the mind with analytical and critical thinking skills. A ladder will be formed based upon students' match results versus others in the class. Time will be spent learning opening moves, middle-game and end-game.

Band

Students will practice individually and also work collaboratively in small group ensembles. All instrumentalists from beginner to advanced are welcome. This class helps students prepare and gain the skills needed to participate in the Calverton Band.

Musical Theater

Middle and Upper School students will join together in singing musical theater songs as a performance based group. Singing, dancing, acting, ensemble work, solo work and more will make this elective a real show stopper!

Marsh and Stream Studies

Students will be introduced to the flora and fauna of a tidal brackish marsh. Students will take regular field trips to the Broome's Island marsh owned by The Calverton School. At the marsh students will be introduced to field data collection by collecting information about air temperature, water temperature, pH, salinity, and dissolved oxygen. They will be responsible for keeping accurate records of the data so they can complete a short analysis at the end of the course. Weekly observations about the marsh are required to be kept in a field journal. Students are also expected to contribute to basic maintenance of the property to keep it functional for future classes.

Photography

This photography elective explores basic camera function, film developing, and the techniques of printing a photographic image. Students learn how to remove film from film container, feed film onto developing reels and prepare film for developing. While printing a photographic image, students learn how to make a contact sheet, test strips, and print several 8x10 black and white images.

Bridge Building

Students explore the many factors involved in designing real bridges including soils and topography, materials, live and dead loads, and material costs. Students work individually and in small groups to experiment with bridge designs made of materials including paper, toothpicks, straws, spaghetti, and balsa wood. The class also explores online applications that will help produce optimal designs. At the conclusion of the class, students test to see whose bridge bears the most weight, while using the least materials.

Mobile Apps Programming

Students learn how to use the App Inventor for Android, an open-source Web application which is a visual blocks-based programming language with interface designer. The goal of this course is to introduce computer programming to students. At the conclusion of the course, students are able to create software applications for the Android operating system.

Sculpture

This course covers visual problem solving in three-dimensional forms. Sculpture's primary focus is on exploration in the additive, subtractive, manipulative, and fabrication processes. Projects involve both two and three-dimensional forms. This course also includes a unit on environmental art in which students will create art out of natural material. Students site their sculptures in various locations throughout the school and campus grounds.

Studio Art

This course is designed to allow students to develop their artistic talent in a variety of media. Students review the Elements of Art and the Principles of design and continue to develop their understanding of how these work together to make a successful piece of art. Students create works of art by working from life as well as from their imagination. This course enables students to grow and develop an expressive individualistic style. Each student is required to have an Investigation Workbook (IWB) that will be graded throughout the semester. This IWB will be used to brainstorm ideas, decide on materials being used, problem solving, and reflection. The IWB will also be a journal that we will use for individual and class critiques.

Yearbook and Digital Photography

Our focus in this elective is on comprehension, cooperation, and completion as students work as part of a team to take and collect digital photographs, to upload and categorize digital images, and then pull from this image bank to create yearbook pages. All work is accomplished using an on-line software program, which students will learn as part of this course. When the creative work is complete, students work in pairs to proofread and edit the work of others. Once the yearbook is complete, students work in teams to create Middle School View Books for grades six, seven, and eight, using digital images and on-line publishing tools. In addition, students will explore themes and interests using digital photography. We will spend class time discussing topics such as depth of field, framing, use of space, and focus. become more aware of how to take a better photograph, and how to group photographs so that they tell a story.



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