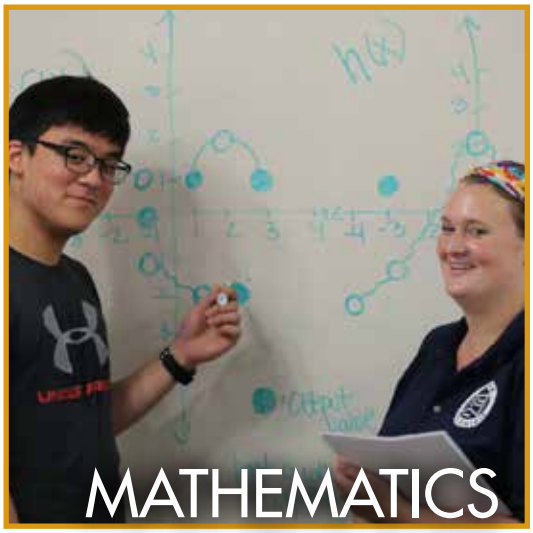
FAIRFAX COLLEGIATE

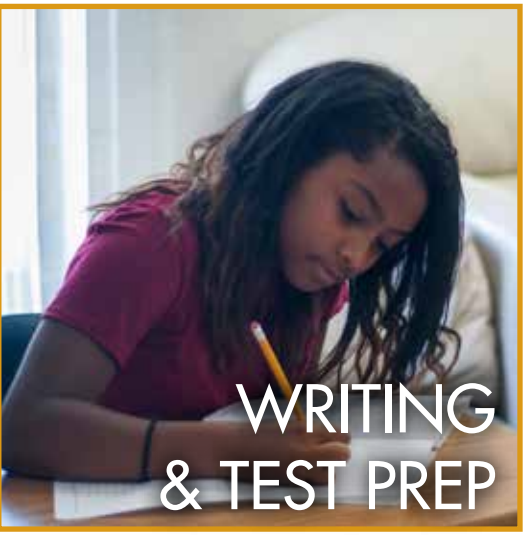
Have Fun And Learn

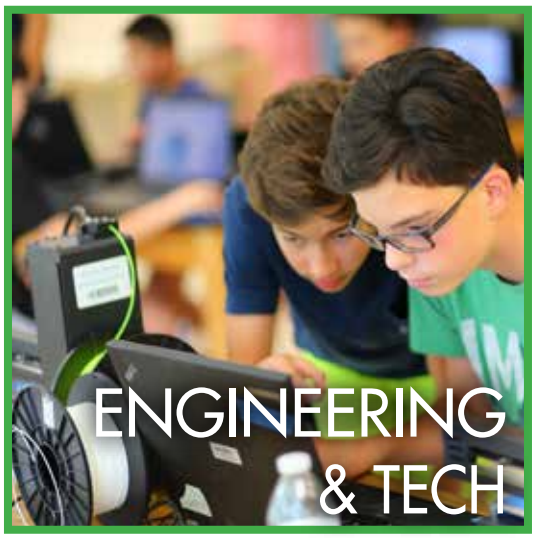
1993

2021 SUMMER

FOR RISING GRADES 3-12







RISING GRADES 3-12
IN-PERSON
AND ONLINE

FAIRFAX COLLEGIATE SUMMER 2021

This summer your child can have fun and learn!

Since 1993, the Fairfax Collegiate Summer Program has provided challenging and engaging courses in writing, mathematics, science, public speaking, test prep, engineering, computer science, filmmaking, design, and technology.

Small classes are available both in-person at locations throughout Northern Virginia, and online via Zoom. Courses are built around creative activities that are captivating and entertaining, as well as informative.

Summer Program instructors include undergraduate and graduate students at leading universities, as well as area public and private school teachers. They take into account each student's interests and needs, and students are able to get help from an instructor at any time.

Over 4,000 students attend Fairfax Collegiate programs each year. Register today to reserve your child's opportunity for academic and creative growth at Fairfax Collegiate!

COVID-19 Information

This year, the Fairfax Collegiate Summer Program will offer both in-person and online classes.

The goals for the in-person classes are to provide students with a safe and comfortable classroom environment where they can interact with teachers and peers face-to-face and continue (or ease) their transition back into school.

The private schools we will be operating at have successfully hosted in-person classes since September with safety measures including social distancing, mandatory masks for instructors and students, daily temperature checks, restricted building entry, classroom occupancy limits based on CDC guidance, and separation of students in different classrooms. We will operate this summer with these safety measures unless official guidance changes.

Families who register for in-person classes may switch to classes held online at any time, and Fairfax Collegiate will provide credit vouchers for any difference in program fees.

2021 SUMMER IN-PERSON LOCATIONS

Chantilly Campus
St. Timothy Catholic School
13809 Poplar Tree Rd.

Dulles Campus
St. Veronica Catholic School
3460-B Centreville Rd.

McLean Campus
Redeemer Lutheran Church
1545 Chain Bridge Rd.

Reston Campus
Northern Virginia Hebrew Congregation
1441 Wiehle Ave.

Tysons Campus
BASIS Independent McLean
8000 Jones Branch Dr.

Vienna Campus
Green Hedges School
415 Windover Ave. NW

PROGRAM OVERVIEW

2021 SUMMER SESSIONS AND HOURS

Session	Start Date	End Date	Duration	Online		In-Person	
				Half Day	Full Day	Half Day	Full Day
Session 1	June 14	June 25	10 days	$300	$500	$525	$825
Session 2	June 28	July 9	9 days*	$270	$450	$475	$750
Session 3	July 12	July 23	10 days	$300	$500	$525	$825
Session 4	July 26	August 6	10 days	$300	$500	$525	$825
Session 5	August 9	August 20	10 days	$300	$500	$550	$875

*No class July 5

Hours	Online	In-Person
Morning Classes	10:00 AM to 12:00 PM	8:30 AM to 12:00 PM
Afternoon Classes	1:00 PM to 3:00 PM	12:30 PM to 4:00 PM
Supervised Lunch Period		12:00 PM to 12:30 PM
AM Extended Care*		7:30 AM to 8:15 AM
PM Extended Care*		4:15 PM to 6:00 PM

*The fee for AM or PM Extended Care is $100 per session or $12 per day.

Siblings/Multiple Sessions

Register siblings or for multiple sessions and save 5%

SUMMER PROGRAM REGISTRATION

Plan your child's schedule and register online at *www.FairfaxCollegiate.com*

Grade Levels and Placement

Course grade levels are *rising grade levels*, the grade levels students will enter in the fall of 2021. Please contact us before enrolling a child in a course designated for older or younger students.

Registration Deadlines

We enroll students until classes are full. Many classes are full by late April. We maintain waiting lists for full classes.

Payment Options

A non-refundable deposit of $100 per session (applied to the total cost of the program) is due at registration. The balance is due June 1. There is a 5% discount for full payment by April 15.

Registration Changes

There is no fee for changing sessions, locations, or classes. (There may be a balance if the new class has a higher price.)

Cancellation Policy

For cancellations before June 1, Fairfax Collegiate will refund program fees less the non-refundable deposit of $100 per session. After June 1, we will provide a credit for program fees paid for use by a family member in a future program.

Emergency Contact Form

For in-person classes there is a one-page *Emergency Contact and Permission Form*. There is no required health form.

Complete Participation Terms

Please visit *www.FairfaxCollegiate.com/summer/participation-terms.*

WRITING AND READING

Writing Fundamentals
Grades 3-4

Students write and revise sentences, paragraphs, and short essays.

This course emphasizes word choice, spelling, sentence structure, paragraph organization, and proofreading.

Instructors provide detailed suggestions for improving spelling and grammar as well as ideas and organization.

Writing & Revising
Grades 3-4

Students write, revise, and discuss personal narratives, essays, short stories, and poems.

Topics include writing organized paragraphs, constructing persuasive written arguments, providing constructive criticism, and revising drafts. Instructors provide detailed written and verbal feedback on student work.

The final project is a class literary anthology.

Story Writing
Grades 3-4

In this creative writing course, students learn to craft their own stories. They practice the writing process and explore components of an effective story. Topics include compelling characters, memorable settings, plot outlines, and point-of-view.

Students workshop their stories in class and receive detailed feedback from instructors. For the final project, students create their own short stories.

Reading Reinforcement
Grades 3-4

This course emphasizes reading as well as writing.

Students read, discuss, and respond to diverse readings including poems, fables, stories, essays, and journalism.

Assignments include summaries, reading comprehension exercises, and interpretations.

Writing Skills & Grammar
Grades 5-6

This writing course focuses on organization, paragraph construction, grammar, spelling, and mechanics.

Topics include brainstorming, outlining, thesis statements, sentence structure, transitions, essay organization, active voice, word choice, and common errors.

Writing for Middle School
Grades 5-6

This course focuses on the five-paragraph essay, the mainstay of writing across the middle school curriculum.

Students learn how to use thesis statements and supporting sentences to structure paragraphs, and how to use paragraphs to structure essays.

The course emphasizes revision based on instructors' detailed corrections and suggestions. Students write and revise daily five-paragraph essays.

Expository Writing
Grades 5-6

Students practice writing explanations of ideas, arguments, and processes.

This course emphasizes organization and logical thinking. Students construct paragraphs and short essays with thesis statements, supporting arguments, evidence, transitions, and conclusions.

Assignments include written presentations of concrete and abstract ideas, short persuasive essays, and exercises that require students to write recipes, directions, and algorithms.

Creative Writing
Grades 5-6

Students read, write, and discuss personal narratives, short stories, plays, and poems.

Students revise drafts of their works based on instructors' written comments.

The final project is a class literary anthology. Students may enter their works into writing contests.

Strategic Reading
Grades 5-6

Students learn and apply reading strategies and tools including close reading, looking for cause and effect, note-taking, outlining, paraphrasing, questioning, skimming, summarizing, and synthesizing.

Students write and revise responses to readings from newspapers, essays, biographies, speeches, and short stories.

Writers' Workshop
Grades 7-9

This course provides middle school students with intensive practice in writing. Classes are small-group seminars.

Students learn the entire writing process including brainstorming, outlining, composing, editing, and revising.

Writing assignments include short stories, poems, articles, and personal essays.

Writing for High School
Grades 7-9

Students practice short-form high school-level writing focusing on five-paragraph essays.

Topics include essay and paragraph structure, persuasive arguments, thesis statements, clean style, mechanics, grammar, diction, and idioms.

Students write and revise daily five-paragraph essays.

Reading for Meaning
Grades 7-9

This is an introduction to critical reading and writing. Genres include short stories, journalistic writing, essays, and poetry.

Classroom exercises develop important literary analytical tools including compare/contrast, cause/effect, and prediction.

Students write a variety of compositions on the results of their analyses and the literary themes expressed in the texts. They also write an original work.

Analytic Writing
Grades 7-9

This course is about constructing and evaluating written arguments.

As a group, students read, discuss, critique, and rebut a variety of essays, speeches, and articles that present and support complex ideas.

Students write, discuss, and revise their own original analytic writing about topics of personal interest. Instructors provide students with detailed individual suggestions for improvement.

Academic Writing
Grades 9-12

Students write and revise short papers and essays on topics of personal interest and learn academic editorial and citation styles.

The course is taught in a seminar style and features discussion of notable examples of different forms of academic writing.

Students write daily in academic style and receive detailed corrections and suggestions for improvement from instructors.

College Essay Workshop
Grades 9-12

This course explores how different colleges use application essays, how to write effective essays, and how to use essays to differentiate and position college applications.

The course is taught as a seminar. Students present their college admission goals and positioning strategies, brainstorm essay topics and approaches, and write, discuss, and revise admission essays.

Year-Round Writing

Write | Discuss | Revise

FairfaxCollegiate.com/write-discuss-revise

MATHEMATICS

Fairfax Collegiate Math 3-4
Grades 3-4

Keep your math skills sharp over the summer.

Fairfax Collegiate Math 3-4 covers 3rd and 4th grade math topics: addition and subtraction, multiplication and division, fractions, decimals, measurement, geometry, probability, patterns, graphing, and word problems.

Each day's schedule includes small-group instruction, individual practice, one-on-one coaching, enrichment, and math games.

Math Workshop
Grades 3-4

Enrich your understanding of 3rd and 4th grade math topics with physical models and new mental strategies.

Lessons center around the use of modeling tools such as base ten blocks, two-color counters, and fraction circles. Once students understand how to use each model, they connect their understanding back to typical pen-and-paper methods in a small-group setting.

The specific areas of focus are: addition, subtraction, multiplication, division, fractions, decimals, and measurement.

Math Games
Grades 3-4

Explore the fun and practical side of math with this game-themed course.

Students learn and play a variety of math-centered board games and puzzles to practice and improve their quantitative and logical reasoning skills. Examples of games include Equate, 24 Game, and Swish. Recurring themes include number sense, mental math, game theory, and spatial reasoning.

As a final project, students choose a game and make a new version with an altered ruleset. Then, they give a short presentation on their new game and playtest it with their classmates.

Fairfax Collegiate Math 5-6
Grades 5-6

Make the transition from elementary to middle school math with confidence.

Fairfax Collegiate Math 5-6 covers the same topics as public school 5th and 6th grade math classes, including: fractions, decimals, integers, geometry, perimeter and area, statistics, ratios and proportions, and algebra.

Each day's schedule includes small-group instruction, individual practice, one-on-one coaching, enrichment, and math games.

Problem Solving
Grades 5-6

Learn key strategies for solving challenging word problems.

Students solve problems using strategies such as "think one" and "two-ten", pictorial representations, and Venn Diagrams.

Areas of focus include algebra, function machines, pattern and logic problems, fractions and ratios, geometric problems, permutations, and cryptarithms.

Advanced Math
Grades 5-6

Use summer as an opportunity to work beyond 5th and 6th grade level standards.

The course closely aligns with topics that would usually be part of a 7th to 8th grade curriculum, such as: algebraic expressions and equations, slope and graphing, transformations, and complex geometry problems involving area, perimeter, surface area, and volume.

Math For Middle School
Grades 6-8

Reinforce critical middle school math skills.

Math for Middle School 6-8 covers the same topics as public school 7th and 8th grade math classes, including: rational and irrational numbers, evaluating expressions, solving equations, proportional and additive relationships, slope and graphing, geometry, volume and surface area, and transformations.

Fairfax Collegiate Math Courses

Fairfax Collegiate mathematics courses help students review or get a head start on material covered in regular school year math courses. Each course features:

1. A diagnostic test to help us plan a customized course of study for your student
2. Daily small group instruction, one-on-one coaching, and enrichment activities
3. A final test that highlights areas of growth and areas for further practice
4. Frequent progress updates from the instructor
5. Practice materials that students take home at the end of the course

Intro to Algebra
Grades 7-9

Prepare for the challenges of high school Algebra.

Topics include: evaluating expressions, the language of algebra, solving equations and systems of equations, relations and functions, slope, graphing and writing linear equations, simplifying exponents, operations on polynomials, factoring, and solving quadratic equations.

Intro to Geometry
Grades 7-9

Prepare for the challenges of high school Geometry.

Topics include: distance, midpoint, and slope formulas, constructions, parallel lines and angles, triangle properties, congruent, similar, and right triangles, quadrilaterals, polygons, circles, 3D figures, and transformations and symmetry.

Intro to Algebra II
Grades 9-12

Prepare for high school Algebra II.

Topics include: operations on rational and radical expressions, factoring and solving polynomials, complex numbers, sequences and series, exponential and logarithmic functions, statistics, and permutations and combinations.

Intro to Precalculus
Grades 9-12

Make the transition to advanced high school-level math with confidence.

This course is a focused workshop for the concepts necessary to succeed in high school Precalculus, including: a careful review of Algebra 2 topics, solving and graphing trigonometric equations, inverse and composite trig functions, vectors, matrices, and limits.

Intro to Calculus
Grades 9-12

Get ready to tackle one of the most advanced high school-level math courses.

This course is a focused workshop for the concepts necessary to succeed in Calculus, including: limits, estimating and calculating derivatives, applications of derivatives, estimating integrals, calculating indefinite and definite integrals, and applications of integrals.

Advanced Math Online

This summer, Fairfax Collegiate will offer an online-only series of advanced math courses for students who are looking for a challenge.

Each course offers students the opportunity to explore, discover, engage with, and master specific skills that are at least two grade levels beyond their age. Each day includes a series of mini-lessons, guided practice, games, and online interactive quizzes.

We recommend taking Fairfax Collegiate Math 3-4, Fairfax Collegiate Math 5-6, or Intro to Algebra 7-9 first, but there is no formal prerequisite to enter the Advanced Math Online program.

Advanced Math Online Courses

- **Fractions 3-4**
- **Measurement and Geometry 3-4**
- **Number Sense 3-4**
- **Probability and Statistics 3-4**

- **Measurement and Geometry 3-4**
- **Number Sense 5-6**
- **Pre-Algebra 5-6**
- **Probability and Statistics 5-6**

- **Advanced Algebra Topics 7-9**
- **Advanced Probability and Statistics 7-9**

Year-Round Math

Math Essentials Online

FairfaxCollegiate.com/math-essentials

SCIENCE

Chemistry Concepts
Grades 3-4

Discover chemistry—matter, forces, heat, energy, phase changes, acids, bases, and reactions—by experimenting.

Students work in small groups. Instructors closely supervise students, and experiments are age-appropriate and use non-hazardous chemicals and supplies.

Hands-On Science
Grades 3-4

Ignite scientific curiosity via hands-on activities.

Biology activities include plant, bacteria, microscope, and epidemiology labs. Chemistry activities include water labs, chemical reaction labs, and acid and bases labs. Physics activities include force and friction labs, bridge building experiments, and energy and power labs.

Spy Science
Grades 3-4 & Grades 5-6

Delve into the science behind spying, sleuthing, and subterfuge.

Topics include fingerprint and handwriting analysis, chemical analysis, forgery identification, homemade spy gadgets and surveillance tools, encryption, and code breaking.

Students conduct spy missions to apply what they have learned throughout the course.

Chem Workshop
Grades 5-6

Explore central ideas of chemistry through hands-on experiments.

Topics include experimental design, the periodic table, atomic structure, chemical bonds and reactions, acids and bases, phase changes, pressure and temperature, and solubility.

Activities include modeling atoms, making casein glue, investigating fluid viscosity, simulating acid rain, refining invisible inks, and exploring chemical reactions.

Forensic Science
Grades 5-6 & Grades 7-9

Investigate the laboratory techniques of law enforcement.

Labs include crime scenes, tool marks, chemical analysis, counterfeit documents, dental impressions, fiber identifications, fingerprints, glass fractures, handwriting analysis, forgeries, ink chromatography, shoe prints, forensic anthropology, blood splatter patterns, and DNA electrophoresis.

Each class attempts to solve a simulated crime using the forensic techniques learned.

Human Biology & Anatomy
Grades 5-6

Research four key organ systems: the cardiovascular system, the digestive system, the nervous system, and the musculoskeletal system.

Class activities include reading assignments, discussions, hands-on exercises, experiments, working with human skeleton and body anatomy models, and medical simulations. Students create life-sized posters of their organ systems.

Medical Science
Grades 7-9

Survey the scientific foundations of modern medicine.

Topics include human anatomy, organ systems, pathology, epidemiology, and pharmacology.

Activities include demonstrations, labs such as bacterial cultures, and simulations of medical procedures such as suturing and phlebotomy.

Animal Physiology
Grades 7-9

Examine animal anatomy, physiology, and organ structures by dissecting owl pellets, annelids, frogs, rats, sheep brains, and dogfish sharks.

Topics include animal taxonomy, skeletons, organs, the nervous, circulatory, and digestive systems, and convergent and divergent evolution.

Neuroscience
Grades 7-9

Probe the nervous system.

Topics include brain structure, motor control, neurons, neurotransmitters, action potentials, signal transduction, potentiation, memory, and neurodegenerative diseases.

Experiments include computer simulations, insect and human motor nerve signal measurement, and brain wave pattern observation and interpretation.

Intro to High School Bio
Grades 9-12

Get ready for high school Biology.

Students preview four complex topics from general and honors high school Biology: Cellular Structure and Function, Biological Transport, DNA, and Heredity and Genetics.

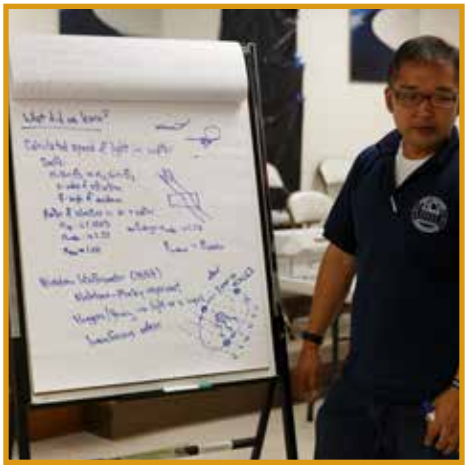
Activities include readings, short lectures, presentations, discussions, problem sets, quizzes, and mock exams.

Intro to High School Chem
Grades 9-12

Prepare for high school Chemistry.

Students get an advanced look at the most challenging concepts in general and honors high school Chemistry: Atomic Structure and Bonding, Chemical Equations, Stoichiometry, States of Matter, and Solutions and Mixtures.

Activities include readings, short lectures, presentations, discussions, problem sets, quizzes, and mock exams.



PUBLIC SPEAKING

fairfaxcollegiate.com/speaking

Persuasive Speaking
Grades 3-4

Students practice developing and delivering skillful, thoughtful, and well-reasoned arguments.

Topics are of direct relevance to students. Students argue both for and against each proposition.

Instructors emphasize mutual courtesy and careful listening.

Public Speaking
Grades 3-4

Students write and deliver short speeches and presentations on topics of their own choosing in a comfortable setting.

Instructors provide detailed individual suggestions for improving both content and delivery.

Students learn how to encourage each other and provide constructive feedback.

Elementary Debate
Grades 5-6

This course introduces elementary students to parliamentary debate.

Debate topics are both challenging and directly relevant to students. The rule structure is less rigid than standard parliamentary debate rules.

Group exercises develop public speaking, critical reasoning, argument construction, rebuttal, and evidence presentation skills.

Speech
Grades 5-6

Students deliver written, extemporaneous, and impromptu speeches.

Instructors critique voice inflection, eye contact, body language, gestures, word choice, visual aids, and tone.

The first week features daily speech exercises. Students research, write, and rehearse individual speeches the second week.

Leadership
Grades 5-6

Students become comfortable taking initiative and advocating and defending courses of action on important issues in public forums.

Instructors help each student select a local or national issue of personal concern and devise a proposal to address the issue. Students then present their solutions and respond to the audience's objections, concerns, and suggestions.

This exercise is repeated the second week with students incorporating their experiences from the first week.

Year-Round Debate

Online Debate League

FairfaxCollegiate.com/online-debate-league

Middle School Debate
Grades 7-9

Students engage in debates which involve a wide variety of issues of public concern at the local, state, national, and global level, as well as topics that are of direct relevance to students.

This course is based on the Middle School Public Debate Program.

Mock Trial
Grades 7-9

Students take on courthouse roles such as attorneys, witnesses, and jurors in a mock trial presided over by an instructor-judge.

Activities include selecting jurors, delivering opening statements, examining witnesses, presenting evidence, making closing arguments, and deliberating verdicts. Discussions address the role of courts, due process, justice, differences between civil and criminal trials, and standards of proof.

Model U.N.
Grades 7-9

Students act as ambassadors to the U.N. Security Council and work to resolve international disputes. They develop critical thinking, negotiating, public speaking, debating, and writing skills.

Topics include the United Nations, the U.N. Security Council, U.N. rules and procedures, speech-making, negotiating, caucusing, and drafting resolutions.

High School Debate
Grades 9-12

Students learn about the format of a high school level debate competition and prepare for a full-length final debate through daily practice and research into a topic chosen from the National Speech and Debate Association's upcoming tournaments.

Topics include logic, research skills, case formation, impacts, cross-examination, flow, frameworks, and optimal debate strategies.

TEST PREP

TJ Personal Statements
Grades 7-8

Middle school students prepare for the Thomas Jefferson High School admissions process, with an emphasis on crafting strong personal statements.

They also practice answering Problem-Solving Essay questions and learn strategies for writing organized and complete essays under time constraints.

Former and current TJ students share their experiences at the school and answer students' questions.

TJ Problem-Solving Essay
Grades 7-8

Middle school students prepare for the Thomas Jefferson High School admissions process, with an emphasis on strategizing for the Problem-Solving Essay question and response.

Students also practice and discuss responses to Student Portrait Sheet essay prompts.

Former and current TJ students share their experiences at the school and answer students' questions.

Academies of Loudoun Prep
Grades 7-8

Middle school students prepare for the Academies of Loudoun (AOS and AET) admissions exam.

Students review content for each of the sections of the STEM Thinking Skills Assessment and learn a variety of effective test-taking strategies. Students also prepare for the Writing Assessment, including significant time practicing personal statements, instruction and feedback in writing organized, informative, and grammatically correct essays, and strategies for how to efficiently work under time constraints.

Students take two full-length practice tests outside of class, and receive a written evaluation after the class is complete.

PSAT Prep
Grades 7-9

Prepare for the PSAT, the qualifying test for the National Merit Scholar program.

The math review covers algebraic expressions and equations, graphical representations, statistics, and strategies for the calculator and no-calculator portions of the test. The reading and writing review emphasizes grammar and mechanics, locating information, making inferences, and analyzing rhetoric.

Students complete two official practice PSAT tests and become familiar with question formats, test scoring, and time-management. Instructors write evaluations with suggestions for improvement.

SAT Prep
Grades 9-12

Prepare for both the math and reading/writing sections of the SAT.

The math review covers SAT Algebra, Geometry, and Algebra 2 topics and strategies for the calculator and no-calculator portions of the test. The reading and writing review emphasizes locating and synthesizing information, making inferences, and analyzing rhetoric.

Students complete three practice SAT tests under timed conditions and become familiar with question formats, test scoring, and time-management strategies. Instructors write evaluations with suggestions for improvement.

Each student receives a copy of *The Official SAT Study Guide*.

Year-Round Test Prep

TJ and SAT Prep Online

FairfaxCollegiate.com/test-prep-online

ENGINEERING

fairfaxcollegiate.com/engineering

Structural Engineering
Grades 3-4

Students play the role of architects and engineers as they design and construct buildings, towers, bridges, and dams.

Projects center on construction materials, structural integrity, safety testing, disaster mitigation, blueprints, and ancient and modern civil engineering.

Space Engineering
Grades 3-4

Students explore astronomy and space travel by performing experiments, completing hands-on projects, and running computer simulations.

Students investigate space suits, rocketry, the phases of the moon, telescopes, rovers, and zero-gravity equipment. They build model spacecraft, simulate space missions, invent constellations, and find stars in virtual planetarium.

Vehicle Engineering
Grades 5-6

Get up to speed on vehicle engineering by designing cars, trucks, and boats.

Topics include components, systems, power, maneuverability, aerodynamics, the design process, safety testing, and manufacturing planning.

Activities include a model car race, a speedboat race, testing designs for brakes and tires, and crash testing. For a final project, each student assembles a working, autonomous RC car that they take home with them.

Power Engineering
Grades 5-6

Turn on to electricity, power plants, green energy, and the power grid.

Students learn about voltage, current, resistance, electricity generation, transmission, and the uses of electric power .

Projects include constructing wind turbines, making batteries, building with solar panels, and creating a small-scale "circuit town".

Military Engineering
Grades 5-6

Students explore physics and engineering in a historical context by building models of medieval siege engines.

Students construct and operate classroom-safe miniature catapults, ballistae, onagers, trebuchets, and other ancient artillery engines. They learn the application of geometry and physics in their designs. For a final project, students participate in launch-distance competitions.

Lessons include engineering topics such as simple machines, tension, torque, two-dimensional kinematics, and the design process, as well as historical information about the invention of siege engines.

Biomedical Engineering
Grades 7-9

Envision and prototype new medical equipment, prostheses, and artificial organs using 3D printing, computer simulations, and traditional modeling.

Topics include biochemistry, cell physiology, cell cycles, cell division, DNA structure and synthesis, protein synthesis, gene expression, tissue structure, human anatomy, and genetic engineering.

Aerospace Engineering
Grades 7-9

Launch into mechanical engineering and the design of aircraft, rockets, and spacecraft.

Topics include the physics of flight, aircraft design, jet propulsion, rocketry, satellites, and human space flight.

Projects include wind tunnel testing of airfoils, aircraft model building, model rocketry using household materials, creating an atmospheric data station, and tracking the path of the International Space Station.

COMPUTER SCIENCE

fairfaxcollegiate.com/computer-science

Scratch Programming
Grades 3-4

Have fun writing programs with Scratch, a programming tool for children.

Students use graphical blocks to define program logic and control graphics, photos, and sounds.

Projects include creating a variety of interactive stories, games, and animations.

Intro to Web Design
Grades 5-6

Create web pages with HTML5.

Topics include the structure of a web page, HTML tags, HTML attributes, hyperlinks, and CSS styles.

Students use digital cameras, Paint.NET, and GIMP to create images for the web.

As a final project, each student creates and publishes a small website.

Intro to Programming
Grades 5-6

Learn Python, the leading language for computer science instruction.

The course provides a comprehensive introduction to the key features of Python at a measured pace which is comfortable for a broad range of students.

For the final project, students write their own Python games.

Intro to Web Development
Grades 5-6

Students learn JavaScript by writing games that run in web browsers such as Google Chrome.

Students discuss examples of browser games, sketch designs for the games they wish to create, use HTML and CSS to create the user interfaces for their games, and learn how to select and modify HTML elements using JavaScript.

Programming
Grades 7-9

Learn Python and prepare for high school Python-based courses.

Topics include Python language syntax, the fundamental data structures, organizing Python programs using functions, classes, and modules, and reading and writing text files.

Projects include utilities and games.

Web Design
Grades 7-9

Write and style web pages using HTML5 and CSS.

Design topics include colors, alignment, contrast, fonts, images, negative space, navigation, and usability.

Students learn to import and embed CSS and media files. They experiment with new HTML5 features, and author pages using open source tools. For a final project, each student creates a small website.

Web Development
Grades 7-9

Students learn JavaScript, the programming language that runs in web browsers and powers modern web apps.

The course begins with an introduction to programming and JavaScript. Students learn about variables, math operators, if/then statements, loops, functions, and arrays. Next, students learn how to interact with web pages using JavaScript, and how to use the development tools packaged in leading web browsers.

The second week students use JavaScript to create their own web apps and browser-based games.

Intro to Computer Science
Grades 9-12

Learn the Java programming language and prepare for high school computer science courses.

The course builds from beginning topics such as keywords, variables, conditionals, and loops to advanced topics such as object-oriented programming, polymorphism, and Java GUI programming.

Exercises include console and GUI utilities, sorting algorithms, simple games, and other student projects.

Algorithms with Python
Grades 9-12

This course presents a hands-on tour of concepts at the core of high school computer science and beyond.

Students program algorithms for building, maintaining, searching, and sorting data structures.

Projects use the Python programming language.

FILMMAKING, PHOTOGRAPHY, AND DESIGN

Intro to Filmmaking
Grades 3-4

Students learn about filmmaking and create two short films, one each week.

Each week begins with the class brainstorming ideas for a short film, writing an original script, and creating a shot list and storyboard.

The students shoot their film using tripods, advanced video cameras, boom microphones, costumes, and props.

Finally, as a class, students edit their film, add music and credits, and export the film to a private Vimeo account for home viewing.

Digital Design
Grades 3-4

Explore universal design principles by creating digital art in a variety of media.

Design topics include composition, exposure, colors, contrast, and vector and raster images.

Activities include digital photography, image editing, digital illustration, digital music creation, and game design exercises.

For a final project, students customize Minecraft, a popular computer game, with their own original digital art.

Filmmaking
Grades 5-6

Students plan, write, shoot, and edit digital video short films. Classes complete two films, one each week.

With the guidance of instructors, students brainstorm ideas for short films, write original scripts, and create shot lists and storyboards.

Students shoot their films using tripods, advanced video cameras, boom microphones, costumes, and props.

Students edit their films, add music and credits, complete post-production, and export their films to a private Vimeo account for home viewing.

Graphic Design
Grades 5-6

Create single-page design projects and practice universal design principles.

Design topics include negative space, grouping, alignment, emphasis, grids, color theory, and typography.

Projects include store signs, menus, banners, posters, and advertisements.

Intro to Photography
Grades 5-6

Design and capture artistic images with DSLR cameras.

Topics include photographic genres, composition, camera operation, lenses, exposure, and basic image editing.

Projects include architectural photography, landscapes, portraits, macro photography, nature photography, and product photography.

Students work in pairs. Fairfax Collegiate provides cameras and computers.

Photography
Grades 7-9

Learn photography using DSLR cameras, starting with basic camera operation.

Exercises emphasize exposure, composition, color, lighting, and achieving artistic effects through the control of aperture, shutter speed, and ISO.

Subjects include plants and flowers, food, portraits, products, sports and action, and architecture.

As a final project, students assemble a portfolio of their best photos.

Students work in pairs. Fairfax Collegiate provides cameras and computers.

Video Production
Grades 7-9

Students plan, write, shoot, and edit their own films on digital video.

The course begins with exercises covering acting, script writing, storyboarding, shot listing, location scouting, camera operation, lighting, and sound.

The majority of the course is devoted to group production of two short films using tripods, advanced video cameras, boom microphones, costumes, props, and (optionally) lighting kits.

Students edit their films and export them to a private Vimeo account.

TECHNOLOGY AND GAMING

Intro to Robotics
Grades 3-4

Build and program LEGO Mindstorms EV3 robots.

Projects include building a trash collecting robot, a robotic arm, and a robot that navigates mazes. The spotlight skill for the course is elementary programming using the EV3 graphical environment.

Robotics Zoo
Grades 3-4

Build LEGO EV3 Mindstorms robots that mimic the appearance and behavior of animals.

Projects include building robotic spiders, frogs, elephants, and stegosauruses. The spotlight skill for the course is building and modifying unusual designs.

Minecraft Modding
Grades 3-4

Customize and extend Minecraft.

Students use MCreator to design, build, and test Minecraft mods. Students customize blocks, items, creatures, environments, achievements, triggers, and events.

As a final project, students design and code their own fully functional Minecraft mods, and export them to use at home with Minecraft Forge.

Mobile Robotics
Grades 5-6

Build and program LEGO Mindstorms EV3 robots using all of the standard sensors and motors.

Projects include following a line, detecting walls, and remote control navigation. The spotlight skill for the course is using sensor data to change what the robot does.

Robotics Olympiad
Grades 5-6

Build and program LEGO Mindstorms EV3 robots, and engage in friendly competitive challenges.

Activities include soccer, go kart racing, and maze navigation. The spotlight skill for the course is optimizing robots to create competitive advantages.

Minecraft and Python
Grades 5-6

Learn Python programming by writing scripts to enhance Minecraft.

Programming topics include variables, types, conditional statements, loops, collections, and algorithms.

Students write Python programs to generate massive structures and cities inside of Minecraft. The second week they create customized Minecraft minigames.

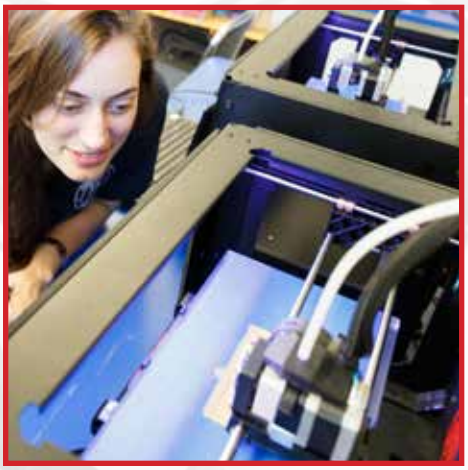
Intro to 3D Printing
Grades 5-6

Design 3D objects and bring them to life on a 3D printer.

Students learn to set up, operate, and troubleshoot printers. They also learn to use computer-assisted design software to create digital models for printing.

Lessons highlight commercial and industrial applications of 3D printing and different 3D printing materials. Students create objects around themes, such as cities, puzzles, or fantasy objects.

Fairfax Collegiate provides a 3D printer and computer for each pair of students. Over the two weeks, each student prints 6 to 8 small objects.



Intro to Drones
Grades 5-6

Fly and learn about drones.

After flight instruction and safety training, students participate in obstacle courses, aerial cinematography, airborne surveillance, and drone racing.

Topics include drone hardware, the physics of flight, airspace restrictions, ethics, and the future of drones. Instructors are FAA certified remote pilots.

Raspberry Pi Projects
Grades 5-6

Learn about electronics and programming with Raspberry Pi, a tiny computer.

Projects include building a video game controller, creating a security camera, plotting a virtual city map, programming a "flying birds" game, and installing and using a Linux distribution.

3D Printing
Grades 7-9

Middle school students design and print 3D objects. Students learn how to set up, use, and troubleshoot printers, and how to create digital models for printing using computer-assisted design software.

Lessons explore different printing materials and diverse applications of 3D printers. Activities focus on creating objects around a certain theme each day, such as cities, puzzles, or fantasy objects.

Fairfax Collegiate provides enough 3D printers for students to share in pairs. Students take home approximately 6-8 small objects throughout the course.

Drones
Grades 7-9

Fly, program, and learn about drones.

After flight instruction and safety training, students participate in obstacle courses, search and rescue simulations, airborne surveillance, and aerial cinematography. Students write simple computer programs to control drones.

Instructors are FAA certified remote pilots.

Esports Arena
Grades 7-9

Build advanced gaming PCs and take on the role of esports athletes.

The course begins with a unit on PC gaming technology. Each student assembles a full-fledged gaming PC using parts provided by Fairfax Collegiate.

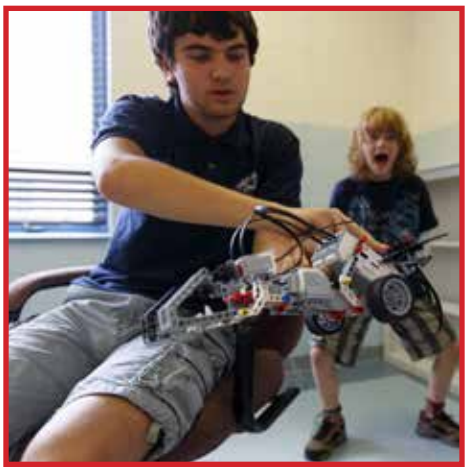
Instructors teach students the rules, tactics, and strategy of each game. Students compete in teams and practice leadership and team skills.

The games used in the course are League of Legends (ESRB Rating: Teen) and Rocket League (ESRB Rating: Everyone).

Robotics Combat
Grades 7-9

Design, build, and program LEGO Mindstorms EV3 robots to compete in daily head-to-head battles.

Projects include jousting, a grenade drop battle, and sumo wrestling. The spotlight skill for the course is optimizing robot designs to gain an advantage.



CHANTILLY AND DULLES SCHEDULES

Chantilly: St. Timothy Catholic School, 13809 Poplar Tree Rd., Chantilly, VA, 20151

Session I: Jun 15*-Jun 25

Morning
Writing Fundamentals 3-4
Intro to Filmmaking 3-4
Fairfax Collegiate Math 5-6
Intro to Web Development 5-6
Writers' Workshop 7-9
Drones 7-9
Robotics Combat 7-9
Intro to Precalculus 9-12
High School Debate 9-12

Afternoon
Fairfax Collegiate Math 3-4
Scratch Programming 3-4
Creative Writing 5-6
Intro to Drones 5-6
Intro to Geometry 7-9
Middle School Debate 7-9
Web Development 7-9
Video Production 7-9
College Essay Workshop 9-12

Session II: Jun 28-Jul 9

Morning
Math Games 3-4
Space Engineering 3-4
Writing for Middle School 5-6
Chem Workshop 5-6
Intro to Algebra 7-9
Mock Trial 7-9
TJ Personal Statements 7-8
Academic Writing 9-12
Intro to Computer Science 9-12

Afternoon
Writing and Revising 3-4
Chemistry Concepts 3-4
Problem Solving 5-6
Elementary Debate 5-6
Reading for Meaning 7-9
Programming 7-9
Forensic Science 7-9
TJ Problem-Solving Essay 7-8
Intro to Algebra II 9-12

Session III: Jul 12-Jul 23

Morning
Writing Fundamentals 3-4
Hands-On Science 3-4
Fairfax Collegiate Math 5-6
Intro to Drones 5-6
Model UN 7-9
Animal Physiology 7-9
Esports Arena 7-9
Intro to Precalculus 9-12

Afternoon
Fairfax Collegiate Math 3-4
Persuasive Speaking 3-4
Strategic Reading 5-6
Human Bio and Anatomy 5-6
Math for Middle School 6-8
Web Development 7-9
Drones 7-9
College Essay Workshop 9-12
SAT Prep 9-12

Session IV: Jul 26-Aug 6

Morning
Math Workshop 3-4
Robotics Zoo 3-4
Expository Writing 5-6
Vehicle Engineering 5-6
Intro to Geometry 7-9
Programming 7-9
Forensic Science 7-9
Academic Writing 9-12

Afternoon
Reading Reinforcement 3-4
Structural Engineering 3-4
Advanced Math 5-6
Spy Science 5-6
Writing for High School 7-9
Middle School Debate 7-9
Robotics Combat 7-9
Intro to Algebra II 9-12
Intro to Computer Science 9-12

***Chantilly Session I begins on Tuesday, June 15, and the program fee is prorated**

Dulles: St. Veronica Catholic School, 3460-B Centreville Rd., Chantilly, VA 20151

Session II: Jun 28-Jul 9

Morning
Writing Fundamentals 3-4
Intro to Filmmaking 3-4
Robotics Zoo 3-4
Fairfax Collegiate Math 5-6
Forensic Science 5-6
Vehicle Engineering 5-6
Writing for High School 7-9
Middle School Debate 7-9
Biomedical Engineering 7-9

Afternoon
Fairfax Collegiate Math 3-4
Persuasive Speaking 3-4
Spy Science 3-4
Expository Writing 5-6
Intro to 3D Printing 5-6
Robotics Olympiad 5-6
Intro to Geometry 7-9
Animal Physiology 7-9

Session III: Jul 12-Jul 23

Morning
Math Workshop 3-4
Chemistry Concepts 3-4
Intro to Robotics 3-4
Writing Skills and Grammar 5-6
Power Engineering 5-6
Filmmaking 5-6
Intro to Algebra 7-9
Programming 7-9
Neuroscience 7-9

Afternoon
Reading Reinforcement 3-4
Space Engineering 3-4
Minecraft Modding 3-4
Advanced Math 5-6
Spy Science 5-6
Minecraft and Python 5-6
Writers' Workshop 7-9
Mock Trial 7-9
Aerospace Engineering 7-9

Session IV: Jul 26-Aug 6

Morning
Writing and Revising 3-4
Public Speaking 3-4
Digital Design 3-4
Problem Solving 5-6
Human Bio and Anatomy 5-6
Intro to Photography 5-6
Reading for Meaning 7-9
Model UN 7-9
Video Production 7-9

Afternoon
Math Games 3-4
Spy Science 3-4
Intro to Filmmaking 3-4
Strategic Reading 5-6
Speech 5-6
Graphic Design 5-6
Math for Middle School 6-8
TJ Problem-Solving Essay 7-8
Photography 7-9

Visit **www.FairfaxCollegiate.com** for additional information about each course, including a detailed syllabus and a schedule of available sessions and locations for a given course.

MCLEAN AND RESTON SCHEDULES

McLean: Redeemer Lutheran Church, 1545 Chain Bridge Rd., McLean, VA 22101

Session IV: Jul 26-Aug 6

Morning

Problem Solving 5-6
Chem Workshop 5-6
Filmmaking 5-6
Writing for High School 7-9
Middle School Debate 7-9
Web Development 7-9
Intro to Precalculus 9-12
SAT Prep 9-12

Afternoon

Strategic Reading 5-6
Elementary Debate 5-6
Intro to Programming 5-6
Intro to Geometry 7-9
Animal Physiology 7-9
College Essay Workshop 9-12
High School Debate 9-12

Session V: Aug 9-Aug 20

Morning

Writing Skills and Grammar 5-6
Speech 5-6
Military Engineering 5-6
Intro to Algebra 7-9
TJ Personal Statements 7-8
Biomedical Engineering 7-9
Aerospace Engineering 7-9
Academic Writing 9-12

Afternoon

Fairfax Collegiate Math 5-6
Forensic Science 5-6
Intro to 3D Printing 5-6
Analytic Writing 7-9
Programming 7-9
Forensic Science 7-9
TJ Problem-Solving Essay 7-8
Intro to Algebra II 9-12

Reston: Northern Virginia Hebrew Congregation, 1441 Wiehle Ave., Reston, VA 20190

Session IV: Jul 26-Aug 6

Morning

Fairfax Collegiate Math 3-4
Chemistry Concepts 3-4
Writing for Middle School 5-6
Intro to Web Development 5-6
Filmmaking 5-6
Intro to Algebra 7-9
Middle School Debate 7-9
Animal Physiology 7-9
Biomedical Engineering 7-9

Afternoon

Story Writing 3-4
Structural Engineering 3-4
Fairfax Collegiate Math 5-6
Leadership 5-6
Chem Workshop 5-6
Writers' Workshop 7-9
Programming 7-9
Aerospace Engineering 7-9
3D Printing 7-9

Session V: Aug 9-Aug 20

Morning

Writing Fundamentals 3-4
Public Speaking 3-4
Problem Solving 5-6
Forensic Science 5-6
Robotics Olympiad 5-6
Writing for High School 7-9
Model UN 7-9
Photography 7-9
Esports Arena 7-9

Afternoon

Fairfax Collegiate Math 3-4
Spy Science 3-4
Writing Skills and Grammar 5-6
Elementary Debate 5-6
Intro to Photography 5-6
Intro to Geometry 7-9
Web Development 7-9
TJ Personal Statements 7-8
Robotics Combat 7-9

TYSONS AND VIENNA SCHEDULES

Tysons: BASIS Independent McLean, 8000 Jones Branch Dr., Mclean, VA 22102

Session I: Jun 14-Jun 25

Morning
Fairfax Collegiate Math 3-4
Chemistry Concepts 3-4
Minecraft Modding 3-4
Writing for Middle School 5-6
Leadership 5-6
Robotics Olympiad 5-6
Intro to Algebra 7-9
TJ Personal Statements 7-8
3D Printing 7-9

Afternoon
Story Writing 3-4
Public Speaking 3-4
Intro to Robotics 3-4
Fairfax Collegiate Math 5-6
Intro to Programming 5-6
Intro to 3D Printing 5-6
Reading for Meaning 7-9
Mock Trial 7-9
Forensic Science 7-9

Session II: Jun 28-Jul 9

Morning
Writing and Revising 3-4
Persuasive Speaking 3-4
Space Engineering 3-4
Problem Solving 5-6
Power Engineering 5-6
Minecraft and Python 5-6
Writers' Workshop 7-9
Neuroscience 7-9
Video Production 7-9

Afternoon
Math Workshop 3-4
Scratch Programming 3-4
Hands-On Science 3-4
Writing Skills and Grammar 5-6
Chem Workshop 5-6
Filmmaking 5-6
Math for Middle School 6-8
Middle School Debate 7-9
Aerospace Engineering 7-9

Session III: Jul 12-Jul 23

Morning
Fairfax Collegiate Math 3-4
Structural Engineering 3-4
Intro to Filmmaking 3-4
Expository Writing 5-6
Elementary Debate 5-6
Intro to Photography 5-6
Intro to Geometry 7-9
Animal Physiology 7-9
TJ Personal Statements 7-8

Afternoon
Writing Fundamentals 3-4
Public Speaking 3-4
Spy Science 3-4
Fairfax Collegiate Math 5-6
Forensic Science 5-6
Mobile Robotics 5-6
Writing for High School 7-9
TJ Problem-Solving Essay 7-8
Photography 7-9

Session IV: Jul 26-Aug 6

Morning
Reading Reinforcement 3-4
Persuasive Speaking 3-4
Hands-On Science 3-4
Advanced Math 5-6
Military Engineering 5-6
Raspberry Pi Projects 5-6
Analytic Writing 7-9
Forensic Science 7-9
Esports Arena 7-9

Afternoon
Math Games 3-4
Scratch Programming 3-4
Space Engineering 3-4
Creative Writing 5-6
Speech 5-6
Spy Science 5-6
Intro to Algebra 7-9
Programming 7-9
Robotics Combat 7-9

Vienna: Green Hedges School, 415 Windover Ave. NW, Vienna, VA 22180

Session I: Jun 14-Jun 25

Morning
Reading Reinforcement 3-4
Hands-On Science 3-4
Digital Design 3-4
Robotics Zoo 3-4
Problem Solving 5-6
Elementary Debate 5-6
Vehicle Engineering 5-6
Raspberry Pi Projects 5-6

Afternoon
Math Workshop 3-4
Persuasive Speaking 3-4
Scratch Programming 3-4
Space Engineering 3-4
Writing Skills and Grammar 5-6
Forensic Science 5-6
Graphic Design 5-6
Mobile Robotics 5-6

Session II: Jun 28-Jul 9

Morning
Fairfax Collegiate Math 3-4
Structural Engineering 3-4
Intro to Filmmaking 3-4
Intro to Robotics 3-4
Strategic Reading 5-6
Speech 5-6
Intro to Web Development 5-6
Human Bio and Anatomy 5-6

Afternoon
Story Writing 3-4
Public Speaking 3-4
Spy Science 3-4
Minecraft Modding 3-4
Fairfax Collegiate Math 5-6
Military Engineering 5-6
Filmmaking 5-6
Robotics Olympiad 5-6

Session III: Jul 12-Jul 23

Morning
Writing and Revising 3-4
Scratch Programming 3-4
Chemistry Concepts 3-4
Space Engineering 3-4
Advanced Math 5-6
Leadership 5-6
Spy Science 5-6
Mobile Robotics 5-6

Afternoon
Math Games 3-4
Persuasive Speaking 3-4
Hands-On Science 3-4
Robotics Zoo 3-4
Creative Writing 5-6
Intro to Programming 5-6
Chem Workshop 5-6
Vehicle Engineering 5-6

Session IV: Jul 26-Aug 6

Morning
Fairfax Collegiate Math 3-4
Public Speaking 3-4
Spy Science 3-4
Minecraft Modding 3-4
Writing Skills and Grammar 5-6
Power Engineering 5-6
Filmmaking 5-6
Robotics Olympiad 5-6

Afternoon
Writing Fundamentals 3-4
Structural Engineering 3-4
Intro to Filmmaking 3-4
Intro to Robotics 3-4
Fairfax Collegiate Math 5-6
Elementary Debate 5-6
Forensic Science 5-6
Minecraft and Python 5-6

ONLINE SCHEDULE

Online: www.FairfaxCollegiate.com/summer-online

Session I: Jun 14-Jun 25

Morning
Writing Fundamentals 3-4
Fairfax Collegiate Math 3-4
Public Speaking 3-4
Writing Skills and Grammar 5-6
Intro to Web Design 5-6
Measurement and Geo 5-6
Writers' Workshop 7-9
Intro to Algebra 7-9
Middle School Debate 7-9
Web Design 7-9
TJ Personal Statements 7-8
PSAT Prep 7-9
Academic Writing 9-12
Intro to Algebra II 9-12
Intro to High School Bio 9-12
SAT Math 9-12

Afternoon
Writing and Revising 3-4
Measurement and Geo 3-4
Writing for Middle School 5-6
Fairfax Collegiate Math 5-6
Elementary Debate 5-6
Graphic Design 5-6
Writing for High School 7-9
Intro to Geometry 7-9
Math for Middle School 6-8
Medical Science 7-9
TJ Problem-Solving Essay 7-8
Intro to Precalculus 9-12
Intro to Computer Science 9-12
SAT Verbal 9-12

Session II: Jun 28-Jul 9

Morning
Writing and Revising 3-4
Persuasive Speaking 3-4
Probability and Statistics 3-4
Writing for Middle School 5-6
Fairfax Collegiate Math 5-6
Intro to Programming 5-6
Writing for High School 7-9
Intro to Geometry 7-9
Model UN 7-9
TJ Problem-Solving Essay 7-8
Academies of Loudoun Prep 7-8
Intro to Calculus 9-12
Algorithms with Python 9-12
Intro to High School Chem 9-12
SAT Verbal 9-12

Afternoon
Story Writing 3-4
Fairfax Collegiate Math 3-4
Scratch Programming 3-4
Creative Writing 5-6
Speech 5-6
Human Bio and Anatomy 5-6
Probability and Statistics 5-6
Reading for Meaning 7-9
Intro to Algebra 7-9
Programming 7-9
TJ Personal Statements 7-8
Advanced Probability and Statistics 7-9
College Essay Workshop 9-12
Intro to Algebra II 9-12
High School Debate 9-12
SAT Math 9-12

Session III: Jul 12-Jul 23

Morning
Writing Fundamentals 3-4
Fairfax Collegiate Math 3-4
Scratch Programming 3-4
Writing Skills and Grammar 5-6
Elementary Debate 5-6
Number Sense 5-6
Graphic Design 5-6
Writers' Workshop 7-9
Intro to Algebra 7-9
Math for Middle School 6-8
Middle School Debate 7-9
Web Development 7-9
TJ Personal Statements 7-8
Academic Writing 9-12
Intro to Algebra II 9-12
Intro to High School Bio 9-12
SAT Math 9-12

Afternoon
Writing and Revising 3-4
Public Speaking 3-4
Number Sense 3-4
Writing for Middle School 5-6
Fairfax Collegiate Math 5-6
Intro to Web Development 5-6
Writing for High School 7-9
Intro to Geometry 7-9
Medical Science 7-9
TJ Problem-Solving Essay 7-8
PSAT Prep 7-9
Intro to Precalculus 9-12
High School Debate 9-12
Intro to Computer Science 9-12
SAT Verbal 9-12

Session IV: Jul 26-Aug 6

Morning
Writing Fundamentals 3-4
Scratch Programming 3-4
Fractions 3-4
Writing Skills and Grammar 5-6
Fairfax Collegiate Math 5-6
Speech 5-6
Human Bio and Anatomy 5-6
Graphic Design 5-6
Writers' Workshop 7-9
Intro to Geometry 7-9
Web Design 7-9
TJ Problem-Solving Essay 7-8
Advanced Algebra Topics 7-9
Intro to Calculus 9-12
High School Debate 9-12
SAT Verbal 9-12

Afternoon
Story Writing 3-4
Fairfax Collegiate Math 3-4
Persuasive Speaking 3-4
Creative Writing 5-6
Intro to Web Design 5-6
Pre-Algebra 5-6
Reading for Meaning 7-9
Intro to Algebra 7-9
Mock Trial 7-9
Academies of Loudoun Prep 7-8
TJ Personal Statements 7-8
College Essay Workshop 9-12
Intro to Algebra II 9-12
Algorithms with Python 9-12
Intro to High School Chem 9-12
SAT Math 9-12

Session V: Aug 9-Aug 20

Morning
Writing Fundamentals 3-4
Fairfax Collegiate Math 3-4
Writing Skills and Grammar 5-6
Elementary Debate 5-6
Measurement and Geometry 5-6
Writers' Workshop 7-9
Intro to Algebra 7-9
Medical Science 7-9
TJ Personal Statements 7-8
Academies of Loudoun Prep 7-8
Academic Writing 9-12
Intro to Algebra II 9-12
Intro to Computer Science 9-12
SAT Math 9-12

Afternoon
Writing and Revising 3-4
Public Speaking 3-4
Measurement and Geometry 3-4
Writing for Middle School 5-6
Fairfax Collegiate Math 5-6
Intro to Programming 5-6
Writing for High School 7-9
Intro to Geometry 7-9
Middle School Debate 7-9
Programming 7-9
TJ Problem-Solving Essay 7-8
Advanced Algebra Topics 7-9
Intro to Precalculus 9-12
Intro to High School Bio 9-12
SAT Verbal 9-12

FAIRFAX COLLEGIATE YEAR ROUND

Hello! It's been quite a year.

When schools closed last March, Fairfax Collegiate went online and offered free public speaking courses to over five hundred students.

In May we were forced to move our summer program online. We provided 100% refunds to families who chose not to follow us.

In June, when the summer program started, families discovered that online learning can be a great experience when done right.

Based on word of mouth, enrollment continued to grow. By the end of the summer, students had completed over 5,000 course enrollments.

In September, we took a breath and reflected on what we had learned about online learning.

Online learning, by bringing students together across distance, makes it possible for Fairfax Collegiate to offer small classes and personalized instruction throughout the entire year.

Students can pursue specialized interests. Students can learn with other students at the same level. Students can meet individually with instructors. Students can complete exercises between classes and share their work. Students can participate in online debate tournaments, film festivals, and other virtual events.

Since October we have been exploring this amazing opportunity. **We are proud to show you what we have made!**

Write | Discuss | Revise

Premium Online Writing Courses

Write | Discuss | Revise courses provide challenging content, direct instruction in writing, weekly reading and writing assignments, and weekly individual writing conferences with the teacher.

Write | Discuss | Revise is for students who seek to go beyond what they are learning at school and take their reading and writing to the next level.

Write | Discuss | Revise Courses

- U.S. Geography 3-4
- U.S. Presidents: Washington to Lincoln 5-6
- U.S. Presidents: A. Johnson to F.D. Roosevelt 5-6
- Benjamin Franklin 7-8
- U.S. Constitution 7-8
- Bill of Rights 9-10

FairfaxCollegiate.com/write-discuss-revise

Math Essentials Online

Your Active Learning Community

When students feel like they are part of a classroom community of learners, they will more effectively discuss, take risks, and ask questions--all of which are keys to understanding math on a deeper level.

Math Essentials Online connects students with an experienced instructor and a small cohort of four to six peers who support each other as they learn, gain confidence, and experience the joy of math.

Math Essentials Online Courses

- Math Essentials 3-4
- Math Essentials 5-6
- Math Essentials 7-8

FairfaxCollegiate.com/math-essentials

Online Debate League

Speak and Compete with Confidence

Students registered in the **Online Debate League** learn to:

- Speak confidently
- Think critically about important issues
- Collaborate with and listen attentively to peers
- Persuade others through crafting insightful arguments

Online Debate League Components

- **Free Debate Clinics:** Learn basics of debate and participate in a practice round
- **Online Debate Clubs:** Weekly skill-building is put to use in full-length debates each meeting
- **Monthly Online Debate Tournaments:** Club members can become champions by competing in these judged, multi-round events

FairfaxCollegiate.com/online-debate-league

TJ and SAT Prep Online

Trusted Test Prep

Fairfax Collegiate has been a trusted provider of test preparation for over 25 years. Our classes stand out because each one:

- Is highly engaging and interactive
- Includes techniques for managing test anxiety
- Is taught by veteran instructors
- Includes feedback on your student's progress

TJ and SAT Prep Online Courses

- TJ Boot Camp - Personal Statements 7-8
- TJ Boot Camp - Problem-Solving Essay 7-8
- SAT Math Boot Camp 9-12
- SAT Verbal Boot Camp 9-12

FairfaxCollegiate.com/test-prep-online

FAIRFAX COLLEGIATE
SUMMER 2021

722 Grant St., Suite J
Herndon, VA 20170
703-481-3080 • www.FairfaxCollegiate.com

FAIRFAX COLLEGIATE
SUMMER 2021
IN-PERSON AND ONLINE

Chantilly
St. Timothy Catholic School
13809 Poplar Tree Rd.

Dulles
St. Veronica Catholic School
3460-B Centreville Rd.

McLean
Lutheran Church of the Redeemer
1545 Chain Bridge Rd.

Reston
Northern Virginia Hebrew Congregation
1441 Wiehle Ave.

Tysons
BASIS Independent McLean
8000 Jones Branch Dr.

Vienna
Green Hedges School
415 Windover Ave., N.W.

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For Rising Grades 3 to 12

Have Fun and Learn!