TWO-WEEK
ACADEMIC REFRESHER PROGRAM
Program Selection:
Our Andover Summer Advantage program is designed for students entering grades 6-9, with offerings specific to students entering 6th grade, students in middle school (entering grades 7-8), and students entering high school (entering grade 9). Classes meet for two weeks, Monday through Friday, August 5-16, 2024.

The session offers a set of classes from which students can choose, offered at specific times throughout the day. Each class is 90 minutes long, and students may select either one or two courses in which to enroll. Each class, regardless of subject area or specialty, will focus on closing any gaps that have widened because of “summer melt” and propelling students forward so that they can begin the academic year with their skills solidified and primed for success. Enrollment begins February 1, 2024, and remains open until classes are full.

Course Selection:
Upon completion of all required enrollment forms, students and parents will have the opportunity to select their courses through the Andover Summer Advantage course registration form. All students have the option to select one or two classes.

When selecting courses, students have the option to enroll in a course that meets during Period 1 and/or a class that meets during Period 2. Timing of course availability is detailed in the catalog that follows.

In the pages that follow you will find the full range of possible Advantage courses that are currently being offered for the summer of 2024. Please note that final course offerings are dependent upon enrollment and staffing, and courses with insufficient enrollment may be cancelled at any point prior to the start of the summer. Students enrolled in a course that is being cancelled will be notified and given the opportunity to enroll in an alternate course, based on what remains available at that time. Course enrollment is a first-come, first-served process, with our most popular courses and programs typically filling up in May each year.
**MONDAY – FRIDAY**  
**AUGUST 5-16, 2024**

<table>
<thead>
<tr>
<th>Period</th>
<th>Time</th>
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<tbody>
<tr>
<td>Period 1</td>
<td>8:30 a.m. - 10:00 a.m.</td>
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<tr>
<td>Break</td>
<td>10:00 a.m. - 10:30 a.m.</td>
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<tr>
<td>Period 2</td>
<td>10:30 a.m. – 12:00 p.m.</td>
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**ALL STUDENTS MUST DEPART CAMPUS BY 12:30 P.M. DAILY**
ANDOVER ADVANTAGE COURSE OFFERINGS
AUGUST 5-16, 2024

Grade 6: Critical Reading and Writing
PERIOD 1
Unlock your potential in reading and writing through our 2-week course, as we delve into literature, exploring various genres and building a deep understanding of texts while developing critical reading skills. This class is designed to help students improve their ability to analyze texts, draw inferences, and make connections, focusing in on annotation skills that students can immediately apply when they return to school in the fall. Students will also expand their vocabulary, enhancing their comprehension and written expression in ways that will prepare them for the more advanced texts they will encounter in middle school. By studying the fundamentals of writing - structure, grammar, and style- students will work toward creating a well-organized and compelling piece analyzing the literature they read.

Grade 6: Math Acceleration (Fundamentals)
PERIOD 2
Prepare for a successful start in 6th grade mathematics with our intensive 2-week Math Acceleration course. This class is designed to enhance foundational math skills and provide a solid grasp of the key concepts necessary for a smooth transition into 6th grade math curriculum. Using a baseline assessment taken just before the start of the course, teachers will customize their instruction to meet student needs. Topics will likely include a review of basic arithmetic with a focus on mathematical relationships: fractions, ratios, and proportionality. Through challenging exercises and problem-solving tasks, students will hone their critical thinking and analytical abilities, essential for success in advanced math courses.

Grades 7 and 8: Middle School Critical Reading and Writing
PERIOD 1
Combining critical reading and analysis of texts with the construction of written responses and arguments, this course offers students the opportunity to build their active reading skills and write for an academic audience and purpose. Over the course of the program, students will practice constructing effective sentences and paragraphs to suit a variety of topics, audiences, and aims. This literacy refresher course challenges students to confront a variety of text types and encourages them to see writing as a valuable tool for conveying their own well-developed arguments, opinions, and analyses. Students will complete a baseline assessment prior to the start of the program, in order to ensure instruction can be best targeted to current strengths and areas of need.

Grades 7 and 8: Middle School Math Acceleration (Topics in Algebra)
PERIOD 2
This course reviews and reinforces math skills found in the pre-algebra and Algebra I curriculum, in order to ensure students enter the Algebra I course with a solid set of underlying skills and exposure to course content. Students will review important prerequisite concepts such as arithmetic with fractions, decimals, percents, negative numbers, and integer exponents, and based on their proficiency, will move on to algebraic concepts such as variables and expressions, ratios and proportions, and graphing. Students will complete a baseline assessment prior to the start of the program, in order to ensure instruction can be best targeted to current strengths and areas of need.
Grades 7 and 8: CSI Andover

PERIOD 1

A family—away for the weekend—has just been robbed! Neighbors awoke to the sound of shattering glass and called the police. The burglars ransacked the bedroom and stole a sack of jewelry, but their attempt to break into the safe was foiled: as police burst through the back door, the two masked suspects fled out the front door. But wait—it looks like one of the suspects tripped and hit his (or her?) head on a table. There’s blood by the door! Plus, there are glass fragments to examine, fingerprints to check for, and possible footprints or tire tracks to make casts of and identify.

Crime scene investigators, grab your bags and head for Andover! Participate in blood spatter activities, stomach content analysis, toxicology experiments, entomology investigations, forensic anthropology studies, and much more.

Grades 7 and 8: Middle School Critical Reading and Writing

PERIOD 2

Combining critical reading and analysis of texts with the construction of written responses and arguments, this course offers students the opportunity to build their active reading skills and write for an academic audience and purpose. Over the course of the program, students will practice constructing effective sentences and paragraphs to suit a variety of topics, audiences, and aims. This literacy refresher course challenges students to confront a variety of text types and encourages them to see writing as a valuable tool for conveying their own well-developed arguments, opinions, and analyses. Students will complete a baseline assessment prior to the start of the program, in order to ensure instruction can be best targeted to current strengths and areas of need.
Grade 9: Math Acceleration (Topics in Algebra or Topics in Geometry)

PERIOD 1

Based upon the results of a pre-program online assessment and inspection of submitted transcript, students choosing this course will be placed into one of the following sections:

Topics in Algebra

This course reviews and reinforces math skills found in the pre-algebra and Algebra I curriculum. It should provide a solid foundation for Algebra II and Intermediate Algebra. Topics include several fundamental concepts of Algebra, graphing and solving linear and quadratic functions, solving systems of linear equations and properties of exponents.

Topics in Geometry*

For students who have had a strong fundamental algebra course but no geometry, this course is a thorough study of the fundamentals of geometry. The development of logical, structured proofs and deductive reasoning is emphasized. Along with numerical solutions to problems, topics include basic postulates of geometry, lines and angles, congruent triangles, parallel lines in the plane and in space, quadrilaterals and polygons, circles, similar triangles and other figures, and the Pythagorean Theorem.

*Prerequisite: a yearlong course in algebra

Grade 9: Academic Writing

PERIOD 2

This course emphasizes essay composition as a craft and exposes students to different uses and combinations of rhetorical modes, including definition, description, narration, process, comparison, and analysis. Over the course of the program, students will practice constructing effective sentences and paragraphs to suit a variety of topics, audiences, and aims. By writing every day as well as reading and discussing the style and mechanics of published essays, students experience writing as a rewardingly rigorous, recursive, and creative process that involves brainstorming, planning, composing, editing, reverse outlining, and constructive peer review. Students will complete a baseline assessment prior to the start of the program, in order to ensure instruction can be best targeted to current strengths and areas of need.

Grade 9: Physics of Flight

PERIOD 1

How much do birds and drones have in common? Is sustainability in commercial aviation possible? Using theory and technology of manmade flight as a focus, this course connects physics and engineering skills through a deep dive into this specific field. This course is designed to serve as a connector between middle school physical science and high school physics, while introducing tools used throughout classical physics, such as trigonometry and diagramming. Students attending a “Physics First” high school may find these two weeks a particularly helpful advantage for 9th grade. Students should expect to use algebra as a guide to think often in the two-week course. Experiential activities will include model rocketry, drone piloting, and engineering design activities.
Grade 9: Literary Challenges and Triumphs

PERIOD 2

Want to take your reading and analytical skills to the next level? Tired of the standard texts from middle school? This course is designed for students who already feel comfortable reading and analyzing standard literary texts and non-fiction, but who would like to strengthen their ability to comprehend, discuss, and write about more challenging works as a way to prepare for the rigors of high school. Potential genres to be studied include non-standard poetic forms (like cinquains, sestinas, and villanelles), classical texts (like those written by William Shakespeare or Walt Whitman), experimental fiction, and fiction that employs sophisticated language or construction. We will dive deeply into close reading, work to build an understanding of how structure at the sentence, paragraph, and chapter-levels contribute to the overall meaning of the text, and we will challenge each other to think creatively through discussion, debate, and written analyses.