

# LANDON SCHOOL

## Course of Study

---

2019–20



**LANDON SCHOOL PREPARES TALENTED BOYS FOR PRODUCTIVE LIVES AS ACCOMPLISHED, RESPONSIBLE AND CARING MEN WHOSE ACTIONS ARE GUIDED BY THE PRINCIPLES OF PERSEVERANCE, TEAMWORK, HONOR AND FAIR PLAY.**

## TABLE OF CONTENTS

<u>EDUCATIONAL VALUES</u> .....	<u>3</u>
<u>DIVISIONAL PHILOSOPHIES AND PRACTICES</u> .....	<u>4</u>
<u>GRADUATION REQUIREMENTS</u> .....	<u>6</u>
<u>INDEPENDENT SENIOR PROJECT</u> .....	<u>7</u>
<u>ADVANCED PLACEMENT AND HONORS COURSES</u> .....	<u>8</u>
<u>GENERAL NOTES</u> .....	<u>8</u>
<u>IMPORTANT NOTES ABOUT SCHEDULE CHANGES</u> .....	<u>9</u>
<u>EDUCATIONAL TECHNOLOGY AND LIBRARIES</u> .....	<u>10</u>
<u>COMMUNITY SERVICE</u> .....	<u>12</u>
<u>ATHLETICS</u> .....	<u>13</u>
<u>ENGLISH</u> .....	<u>14</u>
<u>HISTORY</u> .....	<u>18</u>
<u>MATHEMATICS</u> .....	<u>24</u>
<u>PERFORMING ARTS</u> .....	<u>30</u>
<u>SCIENCE</u> .....	<u>36</u>
<u>STUDIO ARTS</u> .....	<u>43</u>
<u>WORLD LANGUAGES</u> .....	<u>47</u>
<u>INDEPENDENT STUDY</u> .....	<u>57</u>
<u>LANDON-HOLTON COORDINATE PROGRAM COURSE OFFERINGS</u> .....	<u>59</u>

## EDUCATIONAL VALUES

Landon School, an independent, non-sectarian, day school for boys located in Bethesda, Maryland, offers a challenging college preparatory program for grades 3–12.

Landon dedicates itself to a comprehensive education, which emphasizes the realization of potential and favors a varied and generalized, rather than specialized, learning experience. As a student progresses through the school, the faculty, in partnership with parents, intentionally reinforces the student's development from an initial dependence on family and teachers toward a disposition of self-reliance appropriate to his level of maturity. Both structured and nurturing, Landon encourages its students to gain a solid grounding in essential academic skills, hone intellectual curiosity, cultivate artistic expression, strive for physical well-being, increase their social awareness, practice serving their community, and develop a character marked by honor, civility, and integrity.

In addition to academic excellence, Landon offers non-academic experiences requisite for a fulfilling, flourishing life:

- A course of study in the visual and performing arts is fully integrated into the academic curriculum and helps students develop creativity in both individual and group settings.
- An array of community service opportunities helps students to understand the needs of society, find joy in helping others, learn the value of cooperation, and fulfill their commitment to serving others.
- A rigorous, daily athletics requirement helps students experience the benefits of teamwork, the exhilaration of friendly competition, the importance of lifelong physical fitness, and the virtue of persevering to achieve collective goals.
- School-wide emphasis on discussion and practice of the values of respect and honesty helps students to develop into principled young men of moral conviction who understand and embrace the role of virtue in their own lives.
- A daily immersion in a diverse community sharing common experiences helps prepare students for leadership in the increasingly cosmopolitan world of tomorrow.

Landon seeks to instill in students the courage to voice their convictions confidently, a goal best achieved within an educational community characterized by open and free discussion in small classes conducted by faculty with whom students may comfortably develop close personal relationships throughout all areas—be they academic, athletic, aesthetic or advisory—of school life.

It is Landon's intent that, upon graduation, its students leave the school having embraced high standards of performance and effort, as well as a strong disposition of integrity and caring, in order to live exemplary lives in an increasingly complex and dynamic society.

## **DIVISIONAL PHILOSOPHIES AND PRACTICES**

### **LOWER SCHOOL**

Landon’s Lower School balances a focus on academic excellence with a strong sense of community that nurtures the development of moral character. The Lower School program offers a strong foundation for a child’s intellectual and moral education in an environment that both challenges and supports. The curriculum offers a bevy of academic and social experiences, each designed to encourage boys to realize scholastic and ethical growth. Academically, small class sizes provide each student the opportunity to participate, learn accountability, and develop autonomy. Study and organizational skills are fostered, and boys learn to accept increased responsibilities in academic situations as they progress through grades 3 through 5. In addition to its rigorous academics, the Lower School offers many opportunities for boys to grow, including arts, athletics, music and language. Daily athletics—football, soccer, street hockey, basketball, tennis, wrestling, baseball, lacrosse and track—are coached by familiar Lower School teachers. Throughout the year, the Lower School experience is enriched by off-campus field trips that enhance the material learned in the classroom and encourage boys to enjoy time together in a non-classroom setting. Taken together, these experiences in the classroom, on the playing fields, and in the community help Lower School boys develop relationships with peers, teachers and ideas. In turn, these relationships encourage Lower School students to be honest, do their best, and look out for the other fellow, all of which serve as foundations for the character of a Landon boy.

### **MIDDLE SCHOOL**

In Landon’s Middle School (Grades 6, Forms I and II) students face a challenging scholastic environment with increased academic, arts and athletics demands. The curriculum focuses on course content while engaging the boys’ critical thinking skills, progressing from memorization to careful analysis of class material. Middle School teachers challenge their students to accept academic responsibility, develop and defend a personal point of view, advocate for themselves, and expand the boundaries of their intellectual imagination. In addition, teachers in every discipline reinforce academic and study skills in the context of their course work. These skills can be concrete in nature (organization of materials, time management and academic responsibility), or they may reach for more abstract goals (reflection, synthesis and self-assessment, among others). Through this balancing of nurturing guidance and self-discovery, Middle School boys come to understand their own strengths and weaknesses while learning skills and habits of mind necessary to find success in an academically rigorous environment. This rigor is best realized in a community which places value on the relationship between teacher and student. These relationships develop in the classroom, around a lunch table, in advisory, on stage, and on the athletics fields. During these three years, boys make a plethora of decisions—about who they are, what they believe in, and the types of lives they will ultimately lead. In a safe atmosphere of trust and mutual respect, students are liberated to work hard, develop strong bonds with teachers and fellow classmates, and find both fun and meaning in their lives.

**UPPER SCHOOL**

The Landon Upper School, Forms III through VI (Grades 9–12), is the site of crucial development that enables transition to college and life beyond Landon. The division’s curriculum provides a rigorous, thorough, stimulating academic program that not only prepares boys to excel in college, but also encourages boys to develop themselves artistically, athletically and ethically, so that they may serve and lead as young men of honor, civility and integrity. Through a course of study that both establishes foundational knowledge and encourages independent critical thought about that knowledge, Upper School boys partner with teachers to develop mastery not only of ideas, but of intellectual approaches and dispositions that allow them to flourish as thinkers and interpreters. This goal of mastery is met by requiring boys not only to pursue courses in so-called “traditional” academic disciplines (English, history, mathematics, science and world languages), but also through mandatory participation in visual and performing arts classes, daily athletics, and voluntary community service activities. Working individually and in collaboration with other community members, Landon boys find meaning in a curriculum intended to promote deep reading of texts, interrogation of assumptions, personal expression in creative arts, and clear communication, both written and rhetorical. Through this course of study, Landon boys prepare themselves not only for college success, but also for purposeful lives of leadership, learning, and honorable conduct in the 21st century world beyond.

## GRADUATION REQUIREMENTS

To graduate from Landon School, a student must earn 20 academic credits *and* two credits in physical education while in the Upper School. Form VI students have two additional requirements:

- A student must earn a minimum of five academic credits during his senior year, taking at least five courses each semester.
- During the spring of his Form VI year, each student is required successfully to complete an Independent Senior Project. (See Independent Senior Project for description.)

The distribution of required Upper School courses is as follows:

- **English:** Four credits, including one credit in Humanities
- **History:** Three credits, including one credit each in Topics in Global History, U.S. History (AP or regular) or American Studies, and Humanities
- **World Language:** Three credits in the same language *and* through Form V  
*NOTE: A student cannot complete this requirement by earning a summer credit.*
- **Mathematics:** Three credits, through the Pre-Calculus level *and* through Form V  
*NOTE: All summer coursework must be approved by department chair.*
- **Science:** Three credits, including two credits in laboratory science
- **Studio or Performing Arts:** Two credits, excluding studio art elective credits
- **Electives:** Two additional academic credits
- **Physical Education:** Two credits

## INDEPENDENT SENIOR PROJECT

Over the years, Landon has incorporated many types of special senior experiences into its curriculum. Whether through Senior Trek, Interim Week, or the Independent Senior Project (ISP), the school has historically sought ways to address the important life transition that is faced by the members of each Form VI class: graduation and the anticipated move into the far less structured realms of higher education. In its current form, Landon's Independent Senior Project program has been in place for nearly two decades, and over that time it has broadened both the scope and the challenge for the school's seniors to plan, execute and report on a significant capstone experience. The entire process encompasses a student's final semester, but the project itself is placed to occur in the last weeks leading up to Commencement. As such, the Independent Senior Project is the culminating work in a student's career at Landon and the final graduation requirement that a student must fulfill before he receives his Landon diploma.

What makes the Independent Senior Project so remarkably different from other school programs is that the student himself exercises much of the choice and control over his capstone experience in May. Within certain guidelines, and given the necessary accountability attached to a graduation requirement, a Landon senior is given the freedom to design and implement a project that fits his own particular schedule, personal abilities and individual preferences. While the program undergoes some degree of modification from one year to the next—responding to calendar restrictions, student feedback, and even national and international events and concerns—its basic format continues to stress personal reflection and early research, detailed planning, strong commitment, and broadly developed communication skills as fundamental ingredients to successful project experiences.

Put simply, the *goal* of the Independent Senior Project program is to provide an important transitional experience for every Landon senior, linking the closely guided work he has completed in high school to the far more independent efforts he will be expected to conduct in college and beyond. The program is no sink-or-swim proposition, of course: the ISP Committee and others certainly stand ready to provide appropriate oversight in the execution of any project. However (and regardless of the specific undertaking), the truly successful Independent Senior Project is one in which the student himself takes up the challenge to own his experience from the start, demonstrating self-direction and personal responsibility throughout each stage of the project.

The student who learns practical competence through his Independent Senior Project—not only from the project undertaking itself, but also through the critical exercises of developing a concept, planning all its details, meeting the unexpected challenges that are attached to any project experience, and finally reporting on the whole both in writing and before an audience of faculty and peers—realizes a genuine and significant confidence in his own abilities. That confidence is both empowering and timely. Far beyond the approval that any quantifying grade could confer, that confidence is confirmation to the student that he is ready to rely more fully on his own resources as he takes up the new challenges facing him: the independence of college and life away from home.

## ADVANCED PLACEMENT AND HONORS COURSES

Advanced Placement (AP) courses are college-level courses offered primarily in Forms V and VI. A sufficiently high score on an AP examination may allow the student to earn credit in the college he eventually attends. Students are carefully selected for AP courses according to the following criteria:

- teacher recommendation;
- grades in prerequisite courses;
- consideration of the student's total academic load;
- other specific departmental requirements (see appropriate section).

Honors courses are significantly more rigorous than regular courses, and student work is expected to show greater depth, more sophisticated reasoning, academic independence, and higher creativity. Upper-level Honors courses approach AP courses in their degrees of expectation and difficulty. Students need specific departmental recommendation to take Honors courses.

Students may not take a combination of more than three AP/Honors courses in a given year without permission of the head of the Upper School. The work of a typical AP course involves homework of an hour or more each night. Landon expects its students to give serious commitment to AP courses and requires students to take the AP examination in May. A student may, at the discretion of the teacher, department chair and division head, lose AP status at any point during the year. Colleges will be notified of any change in a student's AP status.

## GENERAL NOTES

- In the Upper School, a unit of credit is awarded by successfully completing a course that meets for 270 minutes of class work per eight-day cycle throughout the school year of at least 170 days. Credit is not awarded if the course is not completed as presented in its course description.
- All students must fulfill three athletics requirements (team participation, conditioning class, intramural activity, etc.) per academic year.
- All students in Form III must complete courses in Character Education, Diversity, Environmental Issues, Life Skills, Study Skills, Technology/Library.
- The Form IV American Studies course and the Form V Humanities course each award *two required units of credit*: one in history and one in English.
- Form VI students are required to attend two nightly gatherings as part of the Brinkley Lecture Series.
- Summer courses, including those taken at *Landon Summer*, are not automatically accepted for credit. A student wishing to earn credit during the summer must have his plans approved *in writing*, in advance of the summer study. Award of credit may depend on the student's meeting departmental benchmarks for final grades in summer courses.
- To receive credit for a course, a student must earn a passing grade of 60 or better.

## IMPORTANT NOTES ABOUT SCHEDULE CHANGES

**Purpose of the curriculum.** The major purposes of Landon’s curriculum are to challenge its boys to perform at the highest level of their abilities, to cultivate the virtue of perseverance, and to prepare them for meaningful collegiate and post-collegiate life through the development of skills, knowledge, and habits of mind. Great care is thus taken in placing the boys into courses appropriate to their present levels of capability.

**Careful Choices.** As students move through the Upper School, their responsibilities—both curricular and co-curricular—often become more burdensome. The Form V and VI years in particular are marked by academic challenges such as AP courses, the required Humanities class, and the increased time commitment of college applications; in addition, boys may simultaneously find themselves giving more time to increased roles in the school’s athletics, community service, and performing arts programs. Course selections, then, must be made with careful consideration of the boy’s overall experience and time commitments. With the guidance of the advisor, families and boys should compile an academics schedule that recognizes the various demands on the time of talented, engaged boys. While Landon does not mandate that boys challenge themselves with certain courses, it does call for boys to honor the schedule that they freely select.

**Drop/Add Period.** Procedures are in place to change a course, if the student and his family believe that he has been misplaced, or if his academic interests have evolved. Students **must** recognize, however, that even minor changes may be difficult to accomplish once the master class schedule is set. Available space in a course, the flexibility of a student’s schedule, and specific course requirements are just a few of the factors considered in approving a drop/add request. Such drop/add requests should be submitted by the end of the add/drop period (first two weeks of the first semester, first week of the second semester), but—again—submission is not a guarantor of change.

**Teacher Recommendation.** At any point in the year, a teacher may recognize, through the student’s performance on assessments and in class, that a boy has been improperly placed according to his present levels of capability. In such instances, the teacher, in consultation with the department chair, will suggest a schedule adjustment that better serves the student’s learning. It must be reiterated that the recommendation here comes from the **teacher**, based upon her/his observations, evaluations and professional expertise.

**Extraordinary Circumstances.** Students wishing to change a schedule beyond the drop/add period may petition the school for recognition of “extraordinary circumstances.” The petition would demonstrate that the student had exhausted all available opportunities for enhanced understanding (completion of required assignments, out-of-class meetings with his teacher, consultation with the Teaching and Learning Center, etc.), and was enduring undue emotional and/or temporal hardship in his efforts to work to the highest level of his ability. Other considerations—disappointment with a quarter grade, dissatisfaction with the level of effort legitimately demanded by the discipline, etc.—do not contribute to “extraordinary circumstances.” Petitions will be evaluated by a committee comprised of the student’s advisor, the student’s teacher, the appropriate department chair, the appropriate form advisor, and the head of the Upper School. While each case will be carefully considered, it must be understood that the definition of “extraordinary circumstances” is an **extremely** difficult one to meet, and that such instances are likely to be very rare indeed.

## EDUCATIONAL TECHNOLOGY AND LIBRARIES

The Educational Technology and Libraries Department is comprised of librarians and educational technology specialists whose purpose is to prepare students to participate responsibly and creatively in a continually evolving world by facilitating the learning and use of information and media literacy skills—including critical thinking, problem solving and communication skills—and educational technology. The program seeks to help students become inquisitive, efficient and ethical users of information, and promotes the value of being lifelong readers and learners. The program offers students the knowledge, skills and dispositions necessary to use available tools and resources to reinforce and enhance their education and independent learning, understand community norms for technology use and understand how to create a positive digital imprint.

Librarians and specialists partner with faculty and administration in the planning, teaching and evaluation of the school-wide curriculum. Skills and dispositions relating to reading, research, information and media literacy, and digital citizenship are reinforced from third through twelfth grades.

Additionally, students can expand their technical knowledge through a variety of technology-based clubs and spaces that promote technological creativity. Reading skills and predilections are also encouraged through a variety of book clubs, reading programs and incentives across the divisions.

### **LOWER SCHOOL PROGRAM**

**The Lower School Foundations class encompasses information and media literacy skills, and educational technology.** All Lower School grades meet twice every 8-day rotation for Foundations. The topics covered include reading appreciation and comprehension; research skills; digital citizenship; character education; basic computer use; keyboarding; coding; and hands-on, STEAM-based making.

In addition to Foundations classes, students are provided instruction, reminders and practice of these skills in a project-based learning environment in coordination with their curricular classes across grade levels.

### **MIDDLE SCHOOL PROGRAM**

**The Foundations class for sixth grade students, which meets once an 8-day rotation, includes instruction and practice of foundational skills of information and media literacy skills, and educational technology.** The topics covered include reading appreciation and comprehension; research skills such as using databases, online searching, evaluating resources and understanding plagiarism; digital citizenship; character education; online privacy and security; and how to use Microsoft Office 365, email, various educational applications, and the tools and equipment available to Middle School students.

In addition to Foundations classes, students are provided instruction, reminders and practice of these skills in a project-based learning environment in coordination with their curricular classes across grade levels.

### **UPPER SCHOOL PROGRAM**

In the Technology/Library Component of the Form III Foundations course, students meet once per 8-day cycle. Classes provide instruction and practice of foundational skills of information and media literacy skills, and educational technology. Topics covered include reading appreciation; research skills such as using databases, online searching, evaluating resources and understanding plagiarism; digital citizenship; online privacy and security; and how to use Microsoft Office 365, email and various educational applications.

In addition to Foundations classes, students are provided instruction, reminders and practice of these skills in a project-based learning environment in coordination with their curricular classes across grade levels.

## **COMMUNITY SERVICE**

It is part of Landon’s core mission to develop talented young men not only for lives of accomplishment, but also for lives of responsibility and caring. As a consequence, the school requires its boys to commit to a community service program marked by enduring and wide-ranging opportunities. Involvement in these activities helps develop personal attributes and dispositions—civic responsibility, cross-cultural understanding, environmental stewardship, leadership skills, critical thinking, care for place and for others—that are essential to a complete Landon education.

### **LOWER SCHOOL PROGRAM**

Community service efforts in the Lower School encourage boys to broaden their awareness of the needs of others, and identify activities in which boys can participate to address those needs. As part of Landon’s extended program of character education, community service in the Lower School stands as an essential part of the division’s curriculum. Whether involved in programs that speak to responsibilities within a larger, global community, or whether serving more local constituencies, participation in community service projects reinforces the importance of the Lower School ethos celebrating honesty, doing one’s best, and looking out for the other fellow, no matter who or where that other fellow may be.

### **MIDDLE SCHOOL PROGRAM**

Landon Middle School works in myriad ways to fulfill the school’s mission to “[prepare] talented boys for productive lives as accomplished, responsible and caring men.” As part of the effort to meet this goal, Landon both encourages and facilitates student participation in community service and service learning. To ensure that students understand the connection between serving the greater community and becoming socially responsible citizens, Landon creates, supports and promotes community service opportunities and service-learning reflections that enable students to develop the following skills: the compassion to appreciate the needs of others; the confidence and competence to address these needs appropriately; and the conviction and capacity to serve others in their time and place of need. Through its ethics program, in-school and extracurricular community service, and service-learning programs, the Middle School, in partnership with its parent community and its student leaders, is dedicated to creating activities and events that help students develop the skills necessary to serve others in our communities.

### **UPPER SCHOOL PROGRAM**

Though community service participation is not mandatory for boys in the Upper School, the vast majority of students demonstrate that such a mandate is unnecessary; indeed, Upper School boys not only join extant service projects in great numbers, but also create and develop specific areas of service on their own. Those seeking opportunities found through national organizations can aid Habitat for Humanity, the Special Olympics, Operation Smile, and the American Red Cross Blood Drive. Others can engage in local work, such as tutoring at Ivymount and Garrison Elementary Schools; or on-campus programs recently created by students, such as Dodging for Diabetes. In the Upper School, Landon boys are given a great many occasions to serve others, and this activity enables students to practice and develop a disposition of care that endures beyond school requirements and situations.

## **ATHLETICS**

### **LOWER SCHOOL PROGRAM**

The Lower School sports program introduces boys to Landon sports; the conduct expected of our athletics; the ideals of sportsmanship, teamwork, fair play and determination; and some interscholastic competition in the fifth grade. In addition to the daily sports program, students are given training in physical fitness and good health habits. Each grade has a weekly physical education class that incorporates topics of health.

### **MIDDLE SCHOOL PROGRAM**

The objective of the Middle School athletics program is to teach and develop skills; to develop the spirit of cooperation, unselfishness and teamwork; and to emphasize sportsmanship, fair play and commitment. Coaches in the Middle School make efforts to play every player in interscholastic competition. Tryouts exist to determine the appropriate level of the boy and to make “cuts” from interscholastic teams. Many Middle School teams make cuts as there are limits on space, coaching resources and team sizes, but coaches aim to err on the side of inclusion when possible. Those boys not playing on interscholastic teams join the intramural program. There are never cuts from intramural teams, which seek to involve students in a daily athletics program and allow them to develop skills that encourage lifelong athletic conditioning. Interscholastic competition is arranged with schools having similar athletics philosophies to allow Landon boys to apply individual skill, cooperate as a team, develop community pride, and—most importantly—learn the lessons of fair play. In addition to these physical endeavors, the program is supplemented with a health and wellness class. Meeting once per eight-day cycle, the class enables boys to study various aspects of physical well-being, nutrition, safety and exercise.

### **UPPER SCHOOL PROGRAM**

The Upper School athletics program holds that every boy should participate in sports every day, whether the participation is individual, intramural or interscholastic; in this way, athletics are best described as “co-curricular.” Participants aim to develop athletic skills and coordination, cultivate a disposition that embraces teamwork and cooperation over individual achievement, find opportunities for enjoyment and satisfaction within sporting pursuits, and appreciate the values of perseverance and effort necessary to meet goals within friendly competition. Because athletics are required, the Upper School will provide a reasonable variety of interscholastic and on-campus sports in order to meet the needs of boys with varying levels of ability and interest; at the same time, the Upper School does promote the active participation and full involvement of boys within the spectrum of available offerings, be they interscholastic or not. Upperclassmen who are engaged in a high-level and intensive sports program outside of school, especially those Landon does not offer, will, in certain limited circumstances, be able to apply for a one season exemption through a new program called Contract Athletics. While competition is an essential component of the sports program, winning is the byproduct of an approach to athletics that privileges good sportsmanship, fair play, and the involvement of as many boys as possible in practices and games. Finally, because Landon endorses the concept of teacher-coaches, the sports program endeavors to provide a unique teaching situation whereby boys and their faculty-coaches share in vigorous athletics activities that bring out the best in all participants and support the school’s ethical mission to develop honest, respectful young men of integrity.

## ENGLISH

The Landon English Department teaches the art of language and with it the power to interpret and communicate. We emphasize creative and critical thinking and encourage students to practice articulating their ideas with passion and clarity. Through literature, they connect with experiences from diverse cultures, time periods, and geographical origins. It is our hope that they leave us equipped with the tools of responsible citizenship: discernment, compassion, empathy, and a capacity for meaningful expression.

To these ends, our courses are crafted to enhance each student's growth by challenging him to find his voice and to expand his understanding of the worlds within and beyond him. Students develop analytical skills by reading stories, novels, drama, and poetry, as well as essays and other works of non-fiction. These texts provide opportunities for investigation and growth. Students write often and practice their craft, approaching it from various perspectives and developing confidence with different modes of expression. They rehearse elements of grammar and mechanics while mastering the expression of complex and profound ideas. They reflect and interpret, developing an awareness of the nuances of language. In class discussion, they challenge themselves to voice opinions, share ideas, and ask questions. They learn to listen. English courses demand that participants synthesize information and evaluate evidence, and they ultimately empower our students to speak and write freely, logically, thoughtfully, and with purpose.

### **LOWER SCHOOL PROGRAM**

#### **English**

Reading and Language Arts are essential tools vital to the academic growth of every student. At Landon, we strive to create a print-rich environment that encourages students to explore the world around them through a variety of genres. As part of the schoolwide English department, the Lower School has created a curricularly aligned literacy block entitled English. We incorporate technology to facilitate the application of reading techniques and to tap into the strengths and needs of our diverse learners. Through mini-lessons in reading workshop, students are explicitly taught key reading strategies so that they can become confident, proficient, and independent readers. The same approach holds true for writing workshop where students thoughtfully use the writing and editing processes to stretch their expository and creative writing. Using a balanced literacy approach allows students to read in small groups, work on word work, share their thoughts through writing and partner talks, listen to read-alouds, and spend valuable time independently reading. Teacher read-alouds are an important component of our literacy program. During this time, teachers can model key reading strategies that all good readers use. Below, is a brief description of the English framework.

**Reading Workshop:** Reading workshop helps students become actively engaged, purposeful, independent readers. Through hands-on activities and interactive mini-lessons, students are given the tools needed to determine important information and to navigate through complex text. The Units of Study in Reading by Lucy Calkins is systematically designed to encourage students to develop an appreciation and a method for reading a variety of genres, which include but are not limited to historical fiction, fantasy, non-fiction, and biographies.

**Language Arts/Writing**

The Lower School language arts curriculum holds that writing and speaking skills are most effectively learned in the context of actual writing and speaking. In grades 3 and 4, heavier emphasis is placed upon the fundamental skills and mechanics of writing, such as punctuation, writing complete sentences, paragraph construction, word choice, and outlining. In grade 5, as our students mature, they are granted greater autonomy to produce written documents and become their own editors.

**Be Enthusiastic About Reading (BEAR)**

Each day in the Lower School ends with a 20 minute period of silent, sustained reading or BEAR. Lower School students use this time to practice all of the reading strategies they have learned using high interest texts.

## **MIDDLE SCHOOL PROGRAM**

### **Grade 6 English**

Sixth Grade English is a reading and writing course that generally follows the thematic approach of the Social Studies class which focuses on Ancient History. We begin with Greek myths and continue with the reading of novels, poems, short stories, and speeches as well as completing short writing assignments and more substantive papers. Additionally, we will use the readings to frame our study of vocabulary and NoRedInk, an online program that draws from personalized content to differentiate learning while guiding our understanding of grammar.

### **Form I English**

The Form I English program balances the cultivation of classroom and study skills with the investigation and interpretation of several genres (drama, poetry, fiction, and nonfiction) and the development of creative and analytical writing techniques. Overarching curricular themes include transition, transformation, and journeying, with an attempt to draw from global literature when possible to align with ideas presented in students' World History classes. Students also cultivate their objective writing skills by studying vocabulary, grammar, and usage. Through classroom discussion and journaling, students learn to use and move beyond the factual elements of literature in order to make connections between ideas, to relate a text to personal experience, and to interpret passages for literary significance.

### **Form II English**

Form II English continues to develop boys into strong readers and proficient writers. Students review, analyze, and interpret contemporary and classic literature, including fiction, poetry, plays, and short stories. They explore several novels written by diverse authors whose themes range from *fear of the other*, *racism*, *acceptance*, *the dark side of the human heart*, *hypocrisy*, and *empathy*. In addition to enhancing their reading comprehension, students develop vocabulary and improve their grammar, usage, and annotation skills. The boys also prepare for a rigorous public speaking unit that culminates with a values-centered, personal ethics speech.

## **UPPER SCHOOL PROGRAM**

### **English I (Required of Form III)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

In this course students practice essential reading and writing skills, sharpening their critical thinking through close reading of texts and frequent composition exercises in a variety of rhetorical modes. They are challenged to engage in imaginative discussion and to express themselves articulately. They continue to develop their skills in grammar, mechanics, and vocabulary. Students work through a collection of poetry and short fiction designed to reveal the many voices of a colorful and diverse America (including writers such as Allen Ginsberg, Langston Hughes, Sandra Cisneros, Toni Cade Bambara, Jimmy Santiago Baca, Marge Piercy, Sekou Sundiata, and Z.Z. Packer). Recent major works have included *Oedipus the King*, *Macbeth*, and *The Catcher in the Rye*.

**American Studies: English II Component** (Form IV)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This team-taught, interdisciplinary class combines U.S. history and American literature from the Colonial period to the present. Students explore corresponding topics in history and literature, and they examine the social and historical context of American history through the close reading of varied texts, lively in-class discussion, written analysis, and oral presentations. This course fulfills both the U.S. history requirement and the Form IV English requirement. *If more students sign up than space allows, a placement lottery will be held. Availability is also based on student scheduling.*

**English II** (Form IV)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

A survey of American literature since Colonial times, this course emphasizes the further development of reading and writing skills based on the study of works of American literature in an historical context. Students read stories, poems, and several works of fiction and non-fiction. The U.S. history and English curriculum intersect at several interdisciplinary historical junctures. Points of emphasis include vocabulary, grammar review, mechanics, public speaking, and a short research paper. Recent major works have included *The Great Gatsby* and *The Things They Carried*.

**Humanities: English Component** (Required of Form V)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This team-taught, interdisciplinary course is designed to promote inquiry into the foundations of Western intellectual and artistic culture. Students will study major ideas that shaped human conversation from the Classical period to the 21<sup>st</sup> century through history, literature, art, and music. Critical thinking skills are emphasized in readings, writing assignments, and classroom discussions. A major goal of the course is to develop the student's ability to think across disciplines and synthesize material. Humanities is taught in pairs of linked periods by members of the English and History Departments with occasional assistance from members of the art and music faculty.

**Journalism** (All Forms)

ONE HALF CREDIT, YEAR COURSE, FOUR PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: A minimum of at least an 85 average in English and the permission of the instructor. Re-enrollment after the first year will depend upon previous performance. Note: Course credit does NOT count towards meeting a student's English graduation requirement* This course is designed to expedite the production, facilitate the communication and teamwork, and improve the quality of the *Landon News*, Landon's student newspaper. Students practice layout, photography, and reporting skills, and examine various types of journalistic writing: interview, editorial opinion, features, sports, and hard news. Special attention is given to revision and editing. Leadership, organization, management, and team skills are emphasized. No prior experience on the news is necessary. Assignments and standards are grade-level appropriate.

**Senior English Seminar** (Required of Form VI)

ONE CREDIT, TWO SEMESTER COURSES, SIX PERIODS OVER AN EIGHT-DAY CYCLE

Senior electives are one semester long, and each senior will take one each semester. These classes build on previously established skills and allow students the opportunity to study in a class focused on a particular author, theme, craft, genre or literary period that is of great interest to the instructor. Students will rank their preferences and be placed by lottery into one of their top choices. Some recent offerings include the following: 20<sup>th</sup> Century Southern Literature; Separate Pieces (A Fiction Workshop); Law in Literature; David Foster Wallace; The Hero Myth; Apocalypse...Now?; The Films of Kurosawa; Storytelling and Personal Narrative; and Black Voices.

## HISTORY

**Mission Statement:** It is the goal of the History Department to empower students who can read, write, think and speak with both clarity and thoughtfulness. It is our collective hope that Landon students will develop an appreciation for historical reflection based on empathy towards and inquiry into the myriad contours of history that our program provides.

**Department Philosophy:** The History Department fully recognizes that we are teaching in an ever-changing context. The rate at which information is disseminated, and the speed and ease with which it can be accessed, is unprecedented. Ease of accessibility to myriad forms of information will only continue to increase going forward. To that end, we have three areas upon which we focus. Firstly, we consider the fundamentals of historical inquiry to be paramount. Specifically, reading comprehension, expository writing, factual retention, geography, and an awareness of current events are systematically and progressively taught throughout the history program. Secondly, the seemingly endless reach of the internet, and emergent digital technologies, create both advantages and challenges for the 21<sup>st</sup> century student of history. Lastly, we believe firmly in the relevance and importance of Landon's mission statement, Honor Code and Civility Code, and that the study of history can be augmented by applying the principles of said statements.

**Fundamental skills:** The primary skills required for the study of history are trained systematically and cyclically throughout our curricula. Identifying a thesis, generating evidentiary support, transitional sentences, and the ability to package the same into a cogent piece of historical analysis are skills presented to students, in an age-appropriate fashion, at each grade level. Similarly, the close reading of both secondary and primary sources is emphasized throughout the curriculum. Students are taught to identify topic sentences and supporting details and use quality historical writing as a model for their own work. Historical geography is taught as both a discrete area of inquiry and within the context of whatever historical era is being taught at any given moment. With an eye to the further study of geography, teachers in the History Department make ample and frequent use of current events in class discussions to further illustrate historical trends and events. We believe that this is where some of the deepest, most relevant connections are made.

**Digital technology:** Students in the early 21<sup>st</sup> century enjoy unprecedented access to information, and their ability to access more information faster and with greater mobility continues to grow and will likely do so for the foreseeable future. It is our belief that helping students maximize these opportunities, while doing so safely and responsibly, is critical. Members of the History Department make excellent use of Internet-based and digital technologies while presenting information in class.

**Landon Mission Statement, Honor Code and Civility Code:** The principles laid out in these three documents are the foundational guidelines of life at Landon School. The study of history provides an almost infinite supply of points of entry into fruitful discussions about the ideas and aspirations identified in these statements and codes. History Department teachers actively seek to make links between the lessons espoused in Landon's core philosophies and the content they deliver in class.

## **LOWER SCHOOL PROGRAM**

### **Grade 3**

Grade 3 boys start with a sense of location and history close to home. The year is dedicated to the study of Maryland. Boys learn geography, history and the themes that they will encounter in Grades 4 (population and cultural changes) and Grade 5 (historic events in U.S. history through the buildup to the Civil War) through the lens of Maryland. There is a comprehensive field trip experience tied to the study of Maryland.

### **Grade 4**

Grade 4 boys wrestle with the overarching question of how we became the population we are in the continent we inhabit? We start out studying the different theories and migration paths taken by the first settlers across the Bering Land Bridge. We have our first research project in the first trimester on the three great civilizations of the ancient American World (the Maya, Aztec, and Inca).

Our next point of focus is the five themes of geography. Using location, place, human-environment interaction, movement, and region, the students analyze the Seven Wonders of the World. The second trimester ends with the research of the fifty states. We put together a book on their state.

In the final trimester, we use the Discovery Techbook to familiarize the students with colonial American history. Throughout the year Current Events are integrated into the curriculum keeping the students informed of the happenings around the world. Geography and map reading are stressed throughout the year.

### **Grade 5**

Using the renowned series by Joyce Hakim, *The History of US*, grade 5 boys begin their study of the United States at the point of European colonization through the buildup to the Civil War. Grade 5 boys have the basis of their study of Maryland under their belt followed by the understanding of the exchanges of cultural influences they studied in grade 4. Using the lenses of minority points of view, women's points of view, and children's points of view, the timeline they study gains broader perspective. Boys develop notetaking and summarizing skills, continue using their research planners, and develop the ability to teach their classmates particular points of view through project presentations.

## **MIDDLE SCHOOL PROGRAM**

### **Grade 6 Ancient World**

This course takes a thematic approach to the study of Ancient History. Students trace the development of civilizations across the globe, including Egypt, Greece, China, Africa, India, and the Americas. Writing, annotating, public speaking, and study skills are emphasized. Students in the Class of 2025 and later will take Ancient History in Grade 6, Geography in Form I, and United States History/Civics in Form II.

### **Form I Geography**

Students study the physical and cultural geography and diversity of various parts of the world. They explore ancient cultures of Africa, Asia, and Southwest Asia in comparison to present geography studies. Emphasis is on map skills, universal and specific social problems, and non-Western culture.

**Form II Ancient History**

Students trace the development of civilizations from the Fertile Crescent through the early Medieval Period. Non-Western cultures of that time are also examined. Writing, annotating and study skills are emphasized.

**UPPER SCHOOL PROGRAM****Topics in Global History** (Required of Form III)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

Topics in Global History is a unit-based survey of principally non-Western world history, with emphasis on developments in Africa, East Asia, India, and the Middle East in the modern world. The course stresses the development of historical skills: close reading of primary and secondary sources, logical thinking and critical analysis, the research process, and clear expression of ideas in speaking and writing.

**American Studies: U.S. History** (Form IV)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This team-taught, interdisciplinary class combines U.S. history and American literature from the Colonial period to the present. Students explore corresponding topics in history and literature, and they examine the social and historical context of American history through the close reading of varied texts, lively in-class discussion, written analysis, and oral presentations. This course fulfills both the U.S. history requirement and the Form IV English requirement. *If more students sign up than space allows, a placement lottery will be held. Availability is also based on student scheduling.*

**U.S. History** (Form IV)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This course is a survey of United States history examined thematically. Students become familiar with the texture of American history through close reading of texts, in-class discussion, writing interpretive essays, and making oral presentations. A variety of materials are used to complement the text.

**Humanities: History Component** (Required of Form V)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This team-taught, interdisciplinary course is designed to promote inquiry into the foundations of Western intellectual and artistic culture. Students will study major ideas that shaped human conversation from the Classical period to the 21<sup>st</sup> century through history, literature, art, and music. Critical thinking skills are emphasized in readings, writing assignments, and classroom discussions. A major goal of the course is to develop the student's ability to think across disciplines and synthesize material. Humanities is taught in pairs of linked periods by members of the English and History Departments with occasional assistance from members of the art and music faculty.

**American Government** (Forms V and VI)

½ CREDIT, FALL SEMESTER, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This course has two components: an American government survey and its application to current event issues. The curriculum focuses on the fundamental principles of individual rights, federalism, and separation of powers as applied to American domestic and foreign policy. This class also takes advantage of the school's location in the nation's capital, with appropriate speakers and field trips to complement course study. Students may elect to sit for the AP exam.

**Constitutional Law Seminar** (Forms V and VI)

½ CREDIT, SPRING SEMESTER, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This course focuses on landmark U.S. Supreme Court cases that have shaped the development of American Constitutional Law. Representative topics include: freedom of speech; the constitutional separation of church and state; the constitutional principles governing police searches and seizures; the various procedural rights accorded criminal defendants under the concept of "due process"; the death penalty; the right of privacy and abortion; equal protection; and affirmative action. As we examine these areas of law, we also consider various theories about the role of the Supreme Court in a democratic society. We look at the composition of the current Supreme Court, with a focus on the judicial style and personality of each justice. This is a seminar, not a lecture course. As such, active participation is imperative. Students are responsible for reading, presenting and debating actual Supreme Court opinions. The readings are demanding and require careful analysis and close attention to detail. Prior enrollment in American Government is recommended, but not required.

**U.S. History (AP)** (Forms V and VI)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Teacher recommendations with the approval of the department chair.*

A survey of United States history from the pre-Columbian era to the present. Requirements include reading from a text, articles, primary sources and scholarly studies, writing a number of medium-length essays, and taking a number of AP-style tests. Students are required to sit for the AP exam. *Enrollment is limited.*

**Psychology (AP)** (Forms V and VI)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

AP Psychology is a survey course intended to prepare the students for the AP Psychology exam by providing them with a broad introduction to the study of human behavior and the mental processes that drive it. While the primary goal is to leave the boys with a thorough and balanced base of knowledge in the field, and the tools to confidently demonstrate their knowledge on the AP examination, I am equally hopeful that they will find the material as fascinating as I do. Over the course of the year, we will cover a broad range of topics in the field, giving proportionate attention to each based on its historic representation on the AP exam. This is also an excellent course for students considering taking Psychology 101 in college.

We are fortunate to be using David Myer's excellent textbook, Myers' Psychology for AP, Second Edition, which is organized neatly by topic unit. Overall, there are 14 distinct topic units, which represent the 14 broad topic areas on the AP Psychology exam. Each unit, in turn, is broken down into sub-topics, or modules. All told, there are 80 modules divided amongst the 14 units. Some modules are designed to be covered in a single class, while others may take two or even three classes to adequately

discuss. We start the year with Psychology's roots as a field, utilizing the scientific method, correlation & experimentation, statistical reasoning, forensic psychology, biological psychology and neurotransmission, the nervous and endocrine systems, an overview of the brain, the cerebral cortex, the biology of consciousness/states of consciousness, and the biological bases of behavior. As the year progresses, we move into sensation and perception, learning and motivation, sports psychology, and emotion and stress. We end with a deep dive into psychological disorders and corresponding treatment options.

### **Economics (AP)** (Forms V and VI)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Teacher recommendations with the approval of the department chair.*

The first half of the introduction to Economics gives students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the larger economic system. It places primary emphasis on the nature and functions of product markets, and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy. The second half of the course provides a thorough understanding of the principles of economics that apply to an economic system as a whole. Particular emphasis is given to the study of national income and price determination, economic performance measures, economic growth, and international economics. Students are required to sit for the AP exam. *Enrollment is limited.*

- **Wars 1914-1953 – World War I, World War II, and Korea** (Forms V and VI)

½ CREDIT, FALL SEMESTER, SIX PERIODS OVER AN EIGHT-DAY CYCLE

The course will begin with a thorough review of The Great War (World War I) in which our country, although a late participant, emerged as a world economic, financial and industrial power. The senseless slaughter of that war led to the even greater tragedies of the Second World War, which will be covered in-depth. Our country played a much larger role in WWII, which resulted in our country becoming the world's super power – militarily and financially. An examination of the War Crimes Trials following that War will end our review of World War II. Finally, we will consider our initial ground war in Asia, a vicious war forgotten by too many Americans. We will read one book, All Quiet on the Western Front, and see one movie, The Paths of Glory, and one documentary, Triumph of the Will. Enrollment is limited: 15 students.

**The Vietnam War – Its Immediate and Lingering Effects on Our Country** (Forms V and VI)

½ CREDIT, SPRING SEMESTER, SIX PERIODS OVER AN EIGHT-DAY CYCLE

It was a war that destroyed one Presidency, and probably another. It was a war that was passionately opposed by hundreds of thousands of Americans. It was a war that was never declared and probably never could have been won. It was a war that ended in humiliating defeat for our country despite never losing a battle. It was a war that was largely fought by less advantaged Americans and largely avoided by advantaged Americans. It was a war that encompassed a year – 1968 – unequalled for its impact in any previous year of our history save for 1776 and 1861.

The course will cover why we went there, how we left there, and explore the strategy, the battles, the troopers who fought those battles while we were there. It will cover the French and Japanese control of Vietnam before our country became involved; the inequity of the draft; the agony of the 1960s; the riots; the assassination of John Kennedy, Martin Luther King and Robert Kennedy; our prisoners of war; the resulting devastation of North and South Vietnam; and our country's loss of innocence.

We will read two books: Tim O'Brien's *If I Die in a Combat Zone*, and Philip Caputo's *Rumor of War*, and see one movie: *The Battle of Algiers*. Enrollment is limited: 15 students.

**Global History of Energy Since the Early 19th Century** (Forms V and VI)

½ CREDIT, FALL OR SPRING SEMESTER, SIX PERIODS OVER AN EIGHT-DAY CYCLE

A senior-only elective focused on introducing students to the socioeconomic, geopolitical, cultural, ethical and environmental impact of energy on society since the early 1800s. The goals of the course are to help students understand the critical role energy has played in modern world history and provide them with a sense of the challenges and opportunities that lie ahead. Topics will be examined in chronological order, with developments in the field of energy studied parallel to major trends in history. Other aspects of the course will include biographies of major figures, such as Andrew Carnegie and Elon Musk, a debate project, guest lecturers from the industry, and a trip to a power plant.

### **Social Justice and Civil Rights Studies**

½ CREDIT, SEMESTER LONG COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

Throughout history, there have been many societal issues related to the inequitable treatment of people around the world. In this course, we will research the impact of injustice beginning in the 18th century to understand the dynamics of oppression; by linking conflicting theories of social justice to hierarchies of power grounded in race, ethnicity, nationality, gender identities, and class to particular strategies for social transformation and change. Topics addressed in this course include defining and understanding of what social justice is and the shifts of civil rights issues during this period. We will also use case studies to examine the significance of these shifts in the United States locally, regionally, and nationally. Also, we will explore various social justice concepts and their impact on the law, politics, the economy, the media, and education.

## **MATHEMATICS**

Mathematics is about recognizing form and pattern. The symbols and notation used to organize, manipulate and explore these patterns can seem arcane and divorced from reality for students at times. It is the department's goal to consistently remind students of the connections between the material presented and real world problems. But the discipline should not be thought of as simply a tool for scientists to communicate with, a mere means to an end. Mathematics has the unique privilege in American curricula to introduce students for the first time to a complete and coherent system of deductive reasoning. This exposure to the precepts of formal logic and valid argument not only benefit students' development as mathematicians, but are part of their more general liberal arts education. To think analytically and, eventually, communicate those ideas in a clear and concise manner, is a huge part of what mathematics courses at Landon are trying to instill. To back up statements with reasons, to give specific examples that clarify generalities, and to explain concepts from several different perspectives is at the heart of what mathematics encourages.

Our practical mission is to prepare our boys to be successful in their college mathematics courses, but our ultimate goal is to make sure students graduating from Landon have the wherewithal to effectively use mathematical ideas and methods in the many life endeavors which require them. To accomplish this, Landon's Mathematics Department has the first aim of engendering a love of the subject in our students. Mathematicians and mathematics educators themselves have different reasons for loving the discipline. Many appreciate its formal rigor and seeming lack of ambiguity. Others revel in its wide-ranging application to almost every pursuit of knowledge, most notably in the natural sciences but just as surely in the social and political sciences. While still others treasure most of all the elegance and purity of a discipline whose claims are unequivocally justifiable. All these reasons and many others may push one towards the study of mathematics, but there is a common thread: the joy of problem-solving. Landon's Mathematics Department tries to instill that joy during our students' formative years, foster it throughout their time at Landon, and encourage them to tackle ever-more difficult problems as their expertise and interests develop.

### **LOWER SCHOOL PROGRAM**

#### **Arithmetic**

The Lower School uses Math in Focus — a Singapore math program. There is an emphasis in each grade on problem solving. Students learn new skills and concepts as well as how to think about their thinking and explain their thinking. The program, in all three grades, begins with manipulatives, moves to visual representations, and then introduces the algorithm. Students receive direct instruction and use hands-on activities to explore new concepts and then begin independent practice.

The grade 3 math program begins with numbers to 10,000 — counting, place value, and ordering them. Then they begin to add and subtract these numbers. Next, the boys learn mental math, estimation, and bar modelling. Multiplication and division are the next units. Money and metrics are discussed, as well as bar graphs and line plots. Customary units of measurements are then introduced. The boys work with fractions, time and temperature, and angles and lines. The use of manipulatives enhances each of these areas as the students become familiar with mathematical signs, symbols, and terms. They investigate ideas, discover patterns, and explore ways to solve problems.

The grade 4 math program is comprehensive and builds upon skills learned in grade 3. Students begin the school year working with whole numbers, estimation and number theory, and whole number multiplication and division. They then learn about tables and line graphs, data and probability, fractions and mixed numbers, and decimals. Next, the boys explore angles with perpendicular and parallel line segments, squares and rectangles, conversion of measurements, area and perimeter, and symmetry. The year ends with tessellations.

Relying on the basis established in grades 3 and 4, boys in grade 5 continue cumulative review and broaden their studies in problem-solving strategies and applications. Open-ended problems are introduced, and collaborative work is explored. Areas covered: place value, addition and subtraction of whole numbers and decimals, multiplying whole numbers and decimals, calculations with fractions, ratio and percent, geometry, statistics, and probability.

## **MIDDLE SCHOOL PROGRAM**

### **Grade 6 Mathematics**

Grade 6 mathematics broadens the students' awareness and use of numbers of all sizes and types. Students, having acquired a facility and competency with numbers and basic operations, are asked to expand and relate their knowledge and to develop their understanding of different applications to real world situations.

### **Form I Pre-Algebra**

This course prepares students for Algebra I in Form II. Pre-Algebra helps the student develop understanding of and skills in the principles and methods of mathematics and in their application to a broad range of problem-solving and decision-making situations. Topics covered include positive and negative numbers, the number system, ratios, equations and inequalities, graphing, geometry, and probability.

### **Form II Algebra I**

Algebra I is a comprehensive study of algebraic fundamentals beginning with the basic operations of real numbers and running through the more sophisticated material dealing with quadratics. Emphasis is on operations with real numbers, solving and graphing linear equations, solving word problems, systems of equations (solving by graphing, addition/multiplication and substitution), exponents, radicals, and factoring. This course prepares students for subsequent courses in algebra and geometry.

## **UPPER SCHOOL PROGRAM**

### **Algebra, High School**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Algebra I.*

The aim of this course is to strengthen algebraic fundamentals that are vital to the entire Upper School mathematics curriculum. Students enrolled in this course have taken Algebra I and will benefit from additional time spent mastering skills and material that they will use in future courses. This class will give students additional exposure to the main topics of algebra including the order of operations, solving equations, and graphing relations. Students will complete an entire Algebra I text and preview, as time permits, several important Algebra II topics. The instructor will also set aside course time to work on particular review topics as seen fit.

**Algebra II** (Required course typically taken in Form III)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This course builds on the foundations of linear and quadratic relations developed in Algebra I and introduces the student to exponential, logarithmic, rational and polynomial relations and functions. Development of fundamental graphing skills is stressed early in the course to allow students the opportunity to begin the exploration of mathematics with the graphing calculator in the later part of the course. Students will need a TI 83/84 graphing calculator.

**Algebra II (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Students must have permission of the department chair.*

This is a more rigorous treatment of the subject than the regular course in Algebra II. Added emphasis is put on mathematical structure and as well as independent problem solving. Students should have more highly developed arithmetic and graphing skills since the TI 83/84 graphing calculator will be an important tool used throughout the course. *This course is not a prerequisite for taking honors level work in subsequent years.*

**Calculus**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Pre-Calculus or Advanced Pre-Calculus*

This course introduces students to the fundamental concepts of calculus and their applications. The course does not follow the AP curriculum; however, it is intended to prepare the student for calculus at the college level by exposing him to limits, derivatives, and integrals. Students are required to own a TI 83/84 graphing calculator, which is used throughout this course.

**Calculus AB (AP)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: A minimum grade of 82 in Advanced Pre-Calculus and approval of the department chair.*

This course is an introduction to calculus following the AB syllabus of the Advanced Placement program. Topics studied include elementary functions, limits, derivatives, definite and indefinite integrals, and their applications. This is a rigorous course requiring considerable preparation on a daily basis. Students are required to own a TI 83/84 graphing calculator; it is used throughout this course. Students are required to sit for the AP exam.

**Calculus BC (AP)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: A minimum grade of 82 in Turbo Pre-Calculus with Introductory Analysis and approval of the department chair.*

This course is an introduction to Calculus following the BC syllabus of the Advanced Placement program. In addition to the topics covered in the AB course, students will study vector, polar and parametrically defined functions, L'Hopital's rule and Taylor series, among others. Students are

required to own a TI 83/84 graphing calculator; it is used throughout this course. Students are required to sit for the AP exam.

### **Computer Science Principles**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: minimum grade of 85 in Algebra II, 80 in Algebra II (H)*

This course focuses on the core ideas that shape the landscape of computer science and its impact on our society. A central thrust of the course will be understanding and exploring “the digital representation of everything,” with emphasis on examining the tremendous impact of computing on our lives. Students will use technology to explore the digital world, including the discovery of new knowledge through analysis of large data sets. Students will gain a solid understanding of the basics of computer and network systems. The course will introduce students to computer programming concepts using Scratch, a widely used multimedia authoring tool developed by MIT that can provide a stepping stone to the more advanced world of computer programming. This course will prepare students to take *Computer Science A (AP)* in subsequent years.

### **Computer Science A (AP)** (Forms IV, V and VI)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Department Chair and Instructor approval.*

This course is an introductory course in computer science. It is open to all students with a strong mathematical background and with the permission of the instructor. The Java programming language is used to develop computer programs and algorithms for solving computation problems. The course emphasizes program design, control structures, algorithm development and analysis, and fundamental data structures. Almost all of the class and homework assignments will involve active programming. Students are required to sit for the AP exam.

### **Geometry** (Required course typically taken in Form IV)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Algebra II.*

This course will use both deductive and inductive reasoning to develop an understanding of plane and solid geometry. Topics include congruency, inequality, constructions, areas, volumes, and right angle theory as they apply to the traditional geometric figures of points, lines, angles, triangles, quadrilaterals, etc. and their three-dimensional counterparts. Additional emphasis and outside work is given to developing proofs of theorems and the foundations of geometry.

### **Geometry (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Students must have permission of the Department chair.*

A course for students who are capable of moving at a faster pace, solving longer and more difficult problems, and doing more abstract thinking than the regular geometry course requires. A wider variety of topics will also be offered and the presentation of the subject stresses the structure and concepts to a greater degree. *This course is not a prerequisite for taking honors-level work in subsequent years.*

**Pre-Calculus**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Algebra II and Geometry.*

This is a study of the elementary algebraic and transcendental functions (polynomial, trigonometric, logarithmic, exponential, rational, etc.) and other relations. Students are required to own a TI 83/84 graphing calculator; it is used throughout the course. While students successfully completing this course should be prepared for further study in mathematics, the course does not meet the prerequisite requirement for AP Calculus.

**Pre-Calculus, Advanced**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: A minimum grade of 85 in both Geometry and Algebra II and the approval of the department chair.*

This is an advanced course and offers a more complete preparation for calculus, particularly the Advanced Placement course. The emphasis is on the study and analysis of functions, particularly polynomial, trigonometric, exponential and logarithmic functions. Notation and topics used in calculus are introduced and used throughout the course. Students are required to own a TI 83/84 graphing calculator; it is used extensively in this course.

**Turbo Pre-Calculus with Introductory Analysis (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: A minimum grade of 85 in both Geometry Honors and Algebra II Honors and the approval of the department chair.*

This is an Honors course and a more rigorous treatment of pre-calculus including an introduction to the calculus topics of limits and the derivative. Students selecting this option are expected to continue into the more advanced AP Calculus BC in their senior year. Students are required to own a TI 83/84 graphing calculator; it is used extensively in this course.

**Statistics (AP)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Completion of or enrollment in Advanced Pre-Calculus and approval of the department chair.*

This course follows the syllabus of Statistics in the Advanced Placement program. Students are introduced to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Most of the course is application-oriented; students learn about exploring data, planning a study of the observed patterns, producing models for investigation, and drawing conclusions from their study. The course may be particularly useful to students planning future study in business, economics, education, psychology, sociology, medicine and engineering. Students are required to own a TI 83/84 graphing calculator; it is used throughout this course. Students are required to sit for the AP exam.

**Multivariable Calculus and Differential Equations (H) Landon-Holton Coordinate Program**

ONE CREDIT, YEAR COURSE, MEETS THREE TIMES PER WEEK IN THE MORNING, 7:10–7:55 A.M.

*Prerequisites:* Completion of Calculus BC (AP) and approval of the department chair.

See Landon-Holton Coordinate Program for course description.

## PERFORMING ARTS

The performing arts constitute a vital part of life. Through *aesthetic education*, Landon provides multiple opportunities for each individual to develop the skills and knowledge necessary for participating fully in the performing arts. In both rehearsal and performance, students:

- Develop and expand age-appropriate skills in singing, playing musical instruments and acting, learning to communicate effectively with other performers, directors and an audience.
- Develop and expand their skills in reading music, scanning texts, deciphering dialogue and using movement. Graded exercises and practice in reading musical notation, scores and scripts aid in allowing students to study and understand the culture of times past, present and future.
- Experience a wide variety of the great repertoire available, in studying and performing the historical and contemporary monuments of music and drama. (Participation in musical performances with varying levels of sophistication is commensurate with age, experience, individual ability and interest.)
- Develop *aesthetic sensitivity* and appreciation through listening, improvisation and performance.

These experiences in the performing arts are a part of each student's course of study in Lower and Middle Schools (grades 3–6, Forms I–II). They are also available to a large segment of students in the Upper School (Forms III–VI) who elect to take classes in the performing arts to fulfill a two-year requirement. In point of fact, the majority of students who enter the performing arts program as Form III students are drawn to continue their experience through senior year.

### LOWER SCHOOL PROGRAM

#### **Music**

Music literacy underscores the experience of a Lower School boy. Each homeroom meets for music class twice for every eight-day rotation cycle of classes. All grades receive instruction in music theory and in the reading and writing of music. Students are introduced to various instruments and concepts of rhythm, melody, and harmony. Singing is a very important element in class, as are playing recorder and interacting with and writing music using iPad compatible programs. In addition, each boy is required to participate in one of three performance ensembles and has the opportunity to perform for parents and the community at large. Lower School Band, Strings Ensemble and Chorus each meet twice every eight-day rotation cycle. All ensembles are open to all students. The Landon Little Singers is a select performing group that meets before school twice weekly and is open to all Lower School students. This ensemble gives concerts in which a smaller singing ensemble is desired. The Little Singers have performed throughout the Washington metropolitan area, including at the Kennedy Center, Washington National Cathedral and the White House; they have performed at Carnegie Hall in New York several times, and they provide music for special assemblies and parent visiting days at Landon.

Boys who perform in either band or string ensembles are required to take a lesson in their instrument. Lessons may be scheduled at Landon for the following instruments: flute, clarinet, saxophone, high and low brass, percussion, and string instruments (violin, viola, cello or string bass). There is an additional fee for half-hour weekly lessons scheduled after school.

## **MIDDLE SCHOOL PROGRAM**

### **String Orchestra**

This group of strings players (violin, viola, cello and bass) performs at events both on and off Landon's campus. Members study privately with instrumental instructors at Landon or in the community. Classical and contemporary musical repertoire is explored.

### **Middle School Jazz Ensemble**

The Landon Middle School Jazz Ensemble, specializing in American popular music from Dixieland to rock, is open to all Middle School students. The group meets after school on Monday from 4–5 p.m.

### **Middle School Band**

Middle School Band is open to any student who plays an instrument and agrees to attend the practices as well as continue with individual lessons offered at Landon after school. Aside from many seasonal programs, the Band performs at various school events and gives concerts in the Washington Metropolitan Area. Such performances have been at the Kennedy Center, the D.A.R. Constitution Hall, the Organization of American States, and the Pavilion, as well as the Maryland State Band Assessments at the district and state level.

### **Handbells**

Handbells is a performing group that emphasizes note-reading skills, rehearsal and bell techniques. Musical literacy is emphasized through daily rhythmic and sight-reading exercises. As skills improve, the repertoire advances to demand more of each ringer.

### **Chorus, Choir and Glee Club**

Middle School boys have the opportunity for vocal development, applied music literacy, and an appreciation of myriad traditions, composers, countries and cultures as represented in choral literature. Students are asked to attend and review a choral concert each semester, and they will receive homework assignments to learn how to read music using solfege and what to listen for in classical music. Piano or voice lessons are encouraged, and extra credit is granted for students who pursue those studies at Landon.

### **Chorus**

Middle School students also have an extracurricular singing ensemble, Junior Bearitones, which meets before school once weekly. All Middle School students are eligible to attend. This small ensemble, like its Lower School Little Singers counterpart, has sung throughout the Washington metropolitan area, including at the Kennedy Center, Washington National Cathedral, and the White House; has performed at Carnegie Hall several times; and contributes to special assemblies and events throughout the year on campus.

### **Drama**

This course is designed to provide instruction as well as enjoyment of various aspects of drama. Students will learn basic stage craft and formal voice and acting techniques. Homework assignments will include sewing, writing and memorizing text. The class is open to a limited number of students in grade 6, Form I and Form II. Students perform for the entire Middle School at various times throughout the year. Note: Boys do not have to be enrolled in drama to try out for the Middle School Landon-Holton plays.

## **UPPER SCHOOL PROGRAM**

### **Acting Workshop**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

The goal of this course is to give students practical practice with public speaking, creative writing, and ensemble performances. Homework throughout the year includes memorizing monologues and scenes, during which students are introduced to basic conventions of stage performance. Students will be performing at assemblies throughout the year. The course may be taken multiple times for credit with permission of the instructor.

### **Denizens (Forms III and IV)**

½ CREDIT, YEAR COURSE, THREE PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Admission by approval of the director and must be enrolled in Chamber Singers.*

The Denizens is a group of all freshman and select sophomore Chamber Singers, who are preparing to sing *a cappella* and accompanied vocal works. Denizens are expected to develop the ability to maintain an independent vocal part. The group's diverse repertoire includes Renaissance lute songs and close-harmony arrangements of barbershop, folk and popular music. Piano or voice lessons are encouraged. Past performances have included school and community venues, pops concerts, alumni events, and the Vocal Ensembles Night of the Independent Schools Choral Festival.

### **Bearitones (Forms IV, V and VI)**

½ CREDIT, YEAR COURSE, THREE PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Admission by approval of the director and must be enrolled in Chamber Singers.*

The Bearitones is a select group of Chamber Singers, who specialize in *a cappella* vocal works. Bearitones are expected to be able to maintain an independent vocal part. The group's diverse repertoire includes Renaissance madrigals, Victorian part-songs, and close-harmony arrangements of barbershop, folk and popular music. Piano or voice lessons are encouraged. Past performances

have included school and community venues, pops concerts, regional and state competitions, the White House, and the Vocal Ensembles Night of the Independent Schools Choral Festival.

### **Chamber Singers**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Admission by approval of the director.*

Members of Chamber Singers work to expand their vocal ability, improve their music reading skills, and learn the great musical literature written for men's voices and mixed chorus. Past performances include the Independent Schools Choral Festival at Washington National Cathedral, a December concert, the University of Maryland Men's Choral Festival, Evensong at Washington National Cathedral, competitive adjudications, the Kennedy Center Honors Concert, and a spring tour. Recent trips have been to New York, Orlando, Philadelphia and Chicago. Piano or voice lessons are encouraged.

### **Handbell Ringers, Advanced** (Forms IV, V, and VI)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Admission by the approval of the director.*

This is an advanced performing group of experienced and capable ringers. This ensemble prepares challenging and technically demanding repertoire, building on skills and techniques acquired in Intermediate Handbells. A variety of performances are scheduled throughout the school year, both on and off campus, including two to three concerts during the academic year, a biannual concert trip, and the annual WISH Festival in the spring.

### **Handbell Ringers, Intermediate** (Forms III and IV)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Admission by approval of the director.*

A performing group for experienced freshman and sophomore ringers. Appearances within the school and in the surrounding community are a regular component of the course, including one major concert at the conclusion of each term. This group also joins with Landon's other handbell ensembles in performing at the annual WISH Festival in the spring, as well as performances on campus throughout the year.

### **Jazz Ensemble**

½ CREDIT, YEAR COURSE, FOUR PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: All members must be enrolled in Symphonic Band and take private lessons.*

*Admission by the approval of the director.*

The Landon Jazz Ensemble, specializing in American popular music from Dixieland to rock, is a select group from the Landon Band. Performances are given in the Washington metropolitan area and have included appearances with Wynton Marsalis, the Canadian Brass at the Kennedy Center, the "Best of Washington" fashion show at the Sheraton Washington Hotel, and the "Toys for Tots" event in conjunction with the U.S. Marine Corps.

**Music Theory (AP)** (Forms V and VI)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Membership in a major performing ensemble and instructor approval required.*

An overall introduction to musicianship, theory, musical materials and procedures. Emphasis is on developing the student's ability to recognize, understand and describe the basic materials and processes of music that are heard or presented in a score. The development of aural, sight-singing, written, compositional, and analytical skills are promoted. Other skills, including melodic dictation and four-part harmony, are also covered. Course expectations include regular homework, tests, written theory work, and sight-reading exercises. Students are required to sit for the AP exam.

**Percussion Ensemble**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Membership in the Upper School Symphonic Band and private lessons. Admission by the approval of the director.*

The Landon Percussion Ensemble is comprised of percussion students from the Upper School Symphonic Band. Members not only improve their skills, but also become familiar with vast amounts of percussion music written over many years.

**Small Ensemble**

½ CREDIT OVER THE COURSE OF TWO SEMESTERS, ¼ CREDIT AVAILABLE FOR EACH SEMESTER, THREE PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Membership in the Upper School Band or Strings and private lessons. Admission by the approval of the director.*

The class is open to any student who is a member of the Symphonic Band, Upper School String Ensemble or Percussion Ensemble. Music presented would be in the form of small group. Performance opportunities are given in weekly school assemblies and three concerts each semester, open to the public. Repertoire may be chosen from a wide range of periods and styles.

**String Orchestra**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Lessons and practice required. Admission by the approval of the director.*

The Landon String Orchestra is comprised of students performing on the violin, viola, cello and bass and performs for activities on and off the Landon campus. In general, members study privately with instrumental instructors at Landon; however, study with a teacher outside of Landon is permitted with approval of the director. A musical trip, usually held every other year in the spring, is also required. A string quartet may be formed from the ensemble through the recommendation of the private instructors and the director of strings.

### **Symphonic Band**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Admission by the approval of the director. Lessons are required for membership in the organizations.*

The Landon Symphonic Band is open to any student who plays an instrument and passes the band audition. Instrumental lessons are offered at Landon and are given after school or during study hall periods. Aside from the many seasonal programs, the band performs at various school events and gives concerts in the Washington Metropolitan area. Such performances have been given at the Kennedy Center, the D.A.R. Constitution Hall, and the Organization of American States.

## SCIENCE

An understanding of the natural world and of humanity's place within it is essential. Therefore, the Landon Science Department aims to foster each student's inquisitiveness and enthusiasm by building a base of scientific knowledge and skills through lectures, discussions and hands-on experiential learning. Landon offers a wide variety of courses so that each student is exposed to the fundamental branches of science at various levels. It is the responsibility of our department to prepare students to be informed global citizens, stewards of the environment, and competent users of technology.

The Landon Science Department is committed to integrating the following into its courses at all levels:

**Scientific Knowledge:** We present a structured sequence of scientific knowledge to our students, complementing their knowledge in other academic disciplines. Scientific knowledge is organized concepts, theories and unifying principles, which can lead to testable explanations and predictions about our environment.

**Scientific Method:** We teach how the scientific method is used to form hypotheses about the world and how these hypotheses are tested through the collection and analysis of data.

**Writing Skills and Communication:** We guide students to articulate their understanding of science as a process through writing and presentations, conveying knowledge and understanding about the relationships between basic concepts and observed phenomena, in both the laboratory and field settings.

### LOWER SCHOOL PROGRAM

The Lower School science curriculum aims to educate the boys in many different areas of science, while also developing a love and appreciation for nature through the care of and interaction with classroom pets, growing plants, and various other targeted activities.

In grade 3, students study aspects of biology and chemistry, which includes hands-on experiments on animal classification, invertebrate behavioral studies, fingerprinting, and chromatography. They also work on units on mystery solving, food web and adaptations, acid/base studies, and geology.

In grade 4, units focus on biology, chemistry and physics. Concepts emphasized include experimental design, consumer science, nutrition, food webs and small-mammal anatomy (both through the study of owl pellets), fossils, minerals, and electricity.

The grade 5 course focuses on introductory concepts in physical science, with supplementary units on plant biology, the carbon cycle and human health. Through lab work and teacher instruction, the boys encounter important fundamentals of physics and chemistry, such as the nature of sound

and light waves, kinetic and potential energy, and work. They explore fundamental astronomy and build simple machines using LEGO systems. Students also complete investigative STEM engineering design challenges, some of which incorporate Little Bits technology. Finally, every science student participates in the Lower School's Earth Day activity, which includes the growing of plants from seed and eventually planting them on campus. This allows boys to translate their classroom work into practical understanding and beautification of the Landon campus.

## **MIDDLE SCHOOL PROGRAM**

### **Grade 6 Life Science**

Grade 6 Life Science guides boys through concepts such as heredity, ecology and the environment, cell biology, and human body systems. In addition, students embark on a month-long study of robotics, competing in teams to program and maneuver a state-of-the-art EV3 LEGO robot through a series of obstacles. From this study, several teams are chosen to enter the USFIRST robotics competition.

### **Form I Earth Science**

Form I Earth Science allows boys to pursue a greater understanding of their place in the universe through an exploration of topics such as meteorology, oceanography, geology and astronomy. Key science concepts such as heat, density and buoyancy are integrated into the course, and the boys enjoy hands-on investigations such as boat-building, water table studies, rock and mineral identification, and bathymetric and topographic map studies, among others.

### **Form II Physical Science**

In Form II, students employ and improve quantitative and laboratory skills with an in-depth study of Physical Science. The first segment of the course focuses on the structure of the atom and chemical reactions, as part of an introduction to concepts in chemistry. The class' second segment studies essential concepts in physics such as velocity, acceleration, Newton's laws, electricity and magnetism. Laboratory work emphasizes the use and understanding of technology, with projects including the study of acceleration, gravity, currents and momentum.

## **UPPER SCHOOL PROGRAM**

### **LAB COURSES**

#### **Biology (Forms III and IV)**

ONE LAB CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This course is an introductory study of life science. Cell biology, biochemistry, evolution, survey of kingdoms, genetics, human physiology, and ecology are the key subjects covered. Numerous handouts and the textbook are utilized as reference material. Class participation is emphasized and extensive lab experience provides a solid introduction to the study of living things.

**Biology (H)** (Forms III and IV)

ONE LAB CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Enrollment Criteria:* Students will be placed by the Science Department chair. For returning Landon students, eighth grade science grades, ERB scores and teacher recommendations will be consulted. For students who are new to Landon, admissions testing and science grades will be consulted.

This course is a more technical and rigorous study across the wide field of life science including cell biology, biochemistry, evolution, genetics, human physiology, plant biology, and ecology. The depth and pace of the course is greater and student participation and collaboration are keys to success. Students will look at the interconnectedness of the life science fields and through this develop an understanding and appreciation of biological systems that they can apply to novel material. Laboratory experience will be more self-directed and will involve both macro and micro biological topics.

**Biology (AP)** (Forms V and VI)

ONE LAB CREDIT, YEAR COURSE, TWELVE PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites:* Biology, Chemistry, as well as a minimum grade of 90 in all regular-level science courses or a minimum grade of 85 in any Honors/AP science courses. Additionally, students must have achieved at least an 85 in all English courses. Teacher recommendations will be taken into account by the Science Department chair when making placement decisions.

The AP Biology course is designed to be the equivalent of a college introductory biology course and follows the guidelines of the College Board AP Biology curriculum. Material is structured around the following four “big ideas”:

- The process of evolution drives the diversity and unity of life.
- Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis.
- Living systems store, retrieve, transmit and respond to information essential to life processes.
- Biological systems interact, and these systems and their interactions possess complex properties.

The course is also structured around hands-on, inquiry labs. Students are given the opportunity to engage in student-directed laboratory investigations that give them the opportunity to further develop their critical thinking and analytical skills as the year progresses. Students are required to sit for the AP exam.

**Conceptual Chemistry** (Forms IV, V and VI)

ONE LAB CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisite:* Biology. Teacher recommendations as well as science and math grades will be taken into account by the Science Department chair when making placement decisions.

An introduction to the major concepts of chemistry. The goal of Conceptual Chemistry is to develop an understanding of matter, its composition and structure, and the nature of its behavior. Hands-on experimentation through inquiry and discovery serves to reinforce the principles being learned in class and will lead the students to gain a greater understanding of the material. By understanding the basics of chemistry, the students will then be better able to analyze

a variety of societal issues such as environmental stewardship, energy resources and depletion, genetic engineering, and malnutrition. The long-term goal of the course is to present the students with the skills necessary to acquire technical knowledge to make intelligent decisions for themselves and for the communities to which they belong.

### **Chemistry** (Forms IV, V and VI)

ONE LAB CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisite: Biology. Teacher recommendations as well as science and math grades will be taken into account by the Science Department chair when making placement decisions.*

The course is a general survey of the principles of physical, analytical and inorganic chemistry. There is special emphasis put on problem-solving and logical thought processes. The mathematics of chemistry involves algebraic equations with one unknown. The lab emphasis is on student-oriented, inquiry-based work. It is both qualitative and quantitative in nature and involves individual observations and interpretations. This course is strongly recommended for anyone who will be taking science courses in college.

### **Chemistry (H)** (Forms IV, V and VI)

ONE LAB CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Biology as well as a minimum grade of 90 in all regular-level science/math courses or a minimum grade of 85 in any Honors science/math courses. Teacher recommendations will be taken into account by the Science Department chair when making placement decisions.*

The course is a general survey of the principles of physical, analytical and inorganic chemistry. There is special emphasis put on problem-solving and logical thought processes. The mathematic processes needed for this honors-level class are more rigorous than the regular-level class and involve more complex algebraic equations with one, or sometimes two, unknowns. The lab emphasis is on student-oriented, inquiry-based work. It is both qualitative and quantitative in nature and involves individual observations and interpretations. Students who successfully complete the course will be amply prepared to take the AP Chemistry course and, with some self-studying, will be able to sit for the SAT II examination in chemistry at the end of the school year.

### **Chemistry (AP)** (Forms V and VI)

ONE LAB CREDIT, YEAR COURSE, TWELVE PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Chemistry, Algebra II, as well as a minimum grade of 90 in all regular-level science/math courses or a minimum grade of 85 in any Honors/AP science/math courses. Summer Assignment is recommended and will be assigned in June. Teacher recommendations will be taken into account by the Science Department chair when making placement decisions.*

This course is designed to approximate the scope, depth and pace of a college-level, general chemistry course. Major emphasis is placed on chemical calculations and mathematical formulation of chemical principles. Because competent, safe and comprehensive hands-on laboratory technique is the heart of chemical inquiry, this course will continue to develop experience with standard laboratory apparatus and will add experience with computer-based data collection, spectrometry, precise quantitative analysis and experimental design. The curriculum is geared towards highly motivated students who have developed the ability to think clearly and

express ideas both orally and in writing with clarity and logic. Those students who demonstrate both a strong interest and ability in math and science and are considering science, pre-med, or engineering majors are most appropriate. Students who successfully complete the course will be amply prepared to take the SAT II examination in chemistry at the end of the school year. Students are required to sit for the AP exam.

### **Environmental Science (AP)** (Forms V and VI)

ONE LAB CREDIT, YEAR COURSE, TWELVE PERIODS OVER AN EIGHT-DAY CYCLE

*Enrollment Criteria:* At least an 85 in all regular-level science courses or at least an 80 in any Honors/AP science courses. Additionally, students must have achieved at least an 85 in all English courses. Teacher recommendations will be taken into account by the Science Department chair when making placement decisions.

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Field work, field trips, labs and other hands-on activities will be an integral part of the curriculum. Students are required to sit for the AP exam in May.

### **Forensic Science** (Forms V and VI)

ONE LAB CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites:* Biology, Chemistry.

Students learn and apply the scientific method to the study of criminal investigation and law in this course. Interdisciplinary study is stressed, with biological, chemical and physical concepts interwoven. Topics include crime scene procedure, hair and fiber analysis, questioned documents, forensic pathology and entomology, fingerprints, impressions, blood spatter, DNA, drugs and toxicology, ballistics, and the legal aspects of forensic science. This course utilizes handouts, a textbook and supplemental reading materials. Emphasis is placed on collaborative projects, critical thinking and analytical skills, and in-depth, inquiry-based laboratories. The course culminates with students processing a large-scale, simulated crime scene.

### **Physics** (Forms V and VI)

ONE LAB CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites:* Algebra II, Geometry. Teacher recommendations will be taken into account by the Science Department chair when making placement decisions.

This course is an algebraic- and trigonometric-driven survey of classical and modern physics. Topics include kinematics and dynamics (in two dimensions), thermodynamics, wave phenomena (including sound), optics, electricity and magnetism, and atomic and quantum physics. An understanding of fundamental concepts is paired with problem-solving and hands-on laboratory experience. Evaluations include tests, worksheets, student presentations and laboratory reports.

**Physics C (AP)** (Forms V and VI)

ONE LAB CREDIT, YEAR COURSE, TWELVE PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites:* A minimum grade of 90 in all regular-level science/math courses or a minimum grade of 85 in any Honors/AP science/math courses. A Summer Assignment is required and will be assigned in June. *Co-requisite:* Calculus AP, BC strongly recommended. Teacher recommendations will be taken into account by the Science Department chair when making placement decisions.

Physics C AP is a rigorous, calculus-driven physics course comparable to those offered to first-year science majors at selective colleges and universities. The first semester focuses on classical mechanics, which includes kinematics, dynamics (including linear, circular, and rotational systems), energy in all of its forms and its conservation, and the simple harmonic oscillator. The calculus concepts of the derivative and the definite integral are introduced and used where appropriate. The second semester focuses on the development of Maxwell's equations in their integral form and their applications, including DC circuits. The course includes a significant laboratory component. The course prepares the student to take the two C-level Advanced Placement Exams (Mechanics and Electricity/Magnetism). Students are required to sit for both AP exams in May.

**Astronomy (Forms V & VI)**

ONE LAB CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Pre-requisites:* A minimum grade of 85 or higher in both Algebra II and Geometry courses. Teacher recommendations will be taken into account by the Science Department chair when making placement decisions.

Astronomy will begin with a brief overview of our understanding of the modern universe, which acts as overall context for the course and helps students to appreciate the role of deep time and space. The course will then progress into an examination of the features of our local solar system. We will study how human understanding of the solar system and the bodies in it has changed using home- and school-based observations, NASA resources, and VR simulations to replicate how this knowledge has been developed and refined. We will then study the Sun, its origins, history, and likely future as a starting point to considering stellar and solar evolution. Through online resources and VR simulations, we will study how knowledge of chemistry, mathematics and physics allow us to study distant stars and create models of their origins, lives and fates. From stellar evolution, we will pass on to cosmic evolution, looking at the evolution of galaxies and the current thoughts and models being used to explain the known universe. We will study cosmological events such as galaxy collisions, gravitational waves, and the theoretical possibilities of multiple universes. This last unit will conclude with work on astrobiology and explore what alien worlds and life might look like. A final project will be based work done throughout the year: students will create a scientific report and model of a possible alien inhabited planet that is consistent with the known needed parameters of stellar and planetary evolution. The course will make extensive use of trigonometry and algebra skills, and will also use statistics and some calculus to predict and model cosmological events.

**Introduction to Engineering** (Forms V and VI)

ONE LAB CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: A minimum grade of 85 or higher in both Algebra II and Geometry courses.**Teacher recommendations will be taken into account by the Science Department chair when making placement decisions.*

Introduction to Engineering in an algebra-based course providing a rigorous and extensive introduction to the common principles and methodologies found in the various branches of engineering. The course will focus on the fields of mechanical and civil engineering, electrical engineering, computer-based engineering, and robotics. The course includes significant project-based and design-process components that will focus on hands-on assignments and real-world applications that are designed to incorporate the various fields of engineering. Concepts and mathematical procedures related to force, motion and energy will be used, so students must be comfortable with algebra, geometry and trigonometry. The course will provide students with the basic knowledge and analytical skills needed to develop and create a meaningful and practical design, emphasize global concerns and priorities in engineering, and integrate understanding of the ethical, cultural and societal issues related to engineering practices.

**NON-LAB COURSES****Earth & Environmental Studies, Introduction to** (Forms IV, V and VI) ONE

NON-LAB CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

Earth and Environmental Studies is a survey-based interdisciplinary course. The course will cover the core earth science subjects of ecology, geology, hydrology and meteorology, as well as examine the environmental science subjects of land use and planning, human population, energy, waste and pollution, and climate change. The course will strive to help students build a stronger connection to the natural world and inspire in them the ability to create positive change in the world. The course will cover the complexity of local and global environmental issues and include hands-on activities and field work.

**Meteorology** (Forms IV, V and VI)

FALL SEMESTER, ½ NON-LAB CREDIT, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This is an observationally oriented class with a special emphasis on data collection and analysis, daily discussions about the current weather, and short-term forecasts. Extensive use will be made of the Internet and Landon's real-time weather station. Students will learn how to integrate images and text as they create a cloud chart.

**Oceanography** (Forms IV, V and VI)

SPRING SEMESTER, ½ NON-LAB CREDIT, SIX PERIODS OVER AN EIGHT-DAY CYCLE

Oceanography is a survey-oriented class with emphasis on understanding the interactions of the geological, physical, chemical and biological aspects of the world's oceans. Extensive use will be made of the Internet and supplemental reading materials. Students will also complete a major project on a marine organism.

## STUDIO ARTS

**Mission:** The Landon Studio Arts Department provides young men with a diverse experience in the visual arts. Culture, technology and process are major components embedded into a rich curriculum providing students with the opportunity to explore the many mediums within the studio arts.

**Vision:** Landon's Studio Arts Department dedicates itself to the ethical, intellectual, physical and social development of boys through the visual arts. A diverse arts education helps each student develop fundamental skills, while fostering curiosity and stimulating aesthetic understanding as they work under the guidance of a practicing artist and educator. Students have the art world brought to their classrooms, from past classics to the *avant garde*. Field trips to the National Gallery and other painting occasions are built into the curriculum annually.

**We believe:**

- Respect for self, others and one another's work is the cornerstone to growth and learning.
- A safe and emotionally comfortable environment promotes student learning.
- Students can learn to analyze, synthesize and evaluate to solve problems in a changing world.
- Student learning is enhanced by cross-disciplinary experiences.
- Students have talent requiring cultivation and refinement.
- Students learn and process in different ways.
- Students demonstrate their learning through various forms of assessment.
- Challenging expectations and hard work promote intellectual and aesthetic excellence.
- Students flourish in a creative and supportive community.
- Students embrace diversity to better understand themselves and others.
- Engaging and rigorous instruction prepares students for future education and career roles.
- Educational opportunities extend beyond the classroom.
- Partnerships between students and professional communities enhance student learning.
- Discussion, performance and critique are valuable tools for understanding and growth.

### **LOWER SCHOOL PROGRAM**

Through an introduction to the elements of creative design—lines, shapes, tones, textures and colors, students develop powers of observations, sensitivity and imagination. The care and control of drawing, painting and craft materials are stressed. Students work in tempera, watercolor, pastels, ceramics, copper, fabric, *papier-maché* and graphic arts. They are expected to complete projects, follow and accomplish the requirements, have knowledge of the principles of visual design, and be able to relate their projects to other artists, art movements and cultures.

## **MIDDLE SCHOOL PROGRAM**

### **Grade 6 Studio Art**

Grade 6 Art uses age-appropriate materials to expose students to the major concepts in Drawing, Painting and Design. Projects introduce and use a variety of media, such as graphite, paint, and oil pastels, for example. Art faculty take care to align their instruction with previous art courses to increase a student's confidence in class. The course includes elements of observational drawing as well as abstract expression. As assignments are introduced, they are given context by discussion of art history and notable/influential artists to provide broad exposure to appreciate art from many cultures.

### **Form I Studio Art**

Form I Art focuses on developing a diverse skill set within the art studio. Using familiar media, students are exposed to unconventional techniques, such as dot painting in the style of the indigenous peoples of Australia. Design elements, such as balance, symmetry and simplification of form, are also explored in order to learn more about composition. Projects are longer than previous years, with an emphasis on student organization and independence.

### **Form II Studio Art**

In Form II Art, students tackle complicated, multi-step projects designed to encourage problem-solving, independence, and personal expression within the art studio. Focusing on mastering foundations of drawing, painting and design, students are encouraged to complete final works of professional standards. Assignments are inspired from classical and recent artists alike, from Renaissance and Impressionist painters to current street artists, and are completed using both conventional and unusual materials. Previous projects have included wooden Maori tikis, impressionist animal paintings, and geometric painted hubcaps. Successful completion of the course prepares students for Upper School art classes while also fostering an appreciation for the fine arts beyond Landon.

## **UPPER SCHOOL PROGRAM**

### **Studio Art Courses**

½ CREDIT, SEMESTER COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

A studio art core course can be repeated for credit. Students who repeat will be identified as an advanced studio art student with the recommendation of their art instructor for the repeated course. *Please note: Drawing must be completed within the first year of the Studio Art experience in the Upper School.*

Offerings include:

#### **Ceramics**

A beginning course in ceramics that provides students with a basic working knowledge of the materials and forming methods employed by ceramic artists. Students use the potter's wheel and a variety of hand-building techniques to complete a wide range of projects, both sculptural and utilitarian in nature. The course expands on the common notions of ceramics and its function. Glazing and kiln firing techniques are also discussed.

#### **Digital Media Arts**

This course offers students an opportunity to explore the fundamentals of both digital photography and the media arts. Students will use digital cameras and computer software while exploring the

many different art genres that technology offers. Design principals will be the core emphasis of this course while using technology to experiment and create art. Areas of study include but are not

limited to photography, graphic design, film, animation and illustration. Students will create an electronic portfolio upon completion of the course.

### **Drawing**

A foundation course designed to facilitate and improve one's approach to representational drawing. Special emphasis is placed on the recognition and ordering of basic visual relationships in still life, landscape, architectural, and figure motifs, and on the practice of drawing as visual reasoning. As students begin to gain control of formal visual elements and progress to the advanced level, a wider range of subject matter and concepts is introduced.

### **Painting**

A beginning course in oil painting primarily concerned with an introduction to the materials, conventions, and languages of painting. Techniques develop within the context of exploration and application. Content and meaning are examined through observation and interpretation. The main goal of this class is to provide a strong foundation in the basics of oil painting so that students are familiar and comfortable with the materials and processes. However, students are encouraged to develop personal approaches to convey their ideas, and develop creative intelligence to communicate and recognize meaning and expression.

### **Sculpture**

A course designed to explore the fundamental concepts and methods employed by sculptors. Concepts will be approached using clay, plaster, foam, wood, metal and fiber. Sculpture students are given assigned problems structured to study form in nature and the work of other sculptors. Students employ basic elements of sculpture such as form, mass, positive/negative space, and texture to create works, leading to a basic understanding of the interrelationships of pure form.

### **Architecture, Introduction to**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE.

*Prerequisites: Drawing and either Ceramics or Sculpture.*

This preparatory course in architecture introduces students to world architecture and urbanism from prehistory to the current era, as well as developing and honing the main visualizing skill of the architect: drawing. The course helps students understand the various cultural, technological, philosophical and aesthetic ideas that have helped shape buildings through history. Buildings and settlements on all of the major continents and in all of the major world cultures are discussed. Additionally, students become familiar with methodological practices of the architect, designer and artist through learning basic 3-D computer-generated forms and models. Students are expected to learn and understand fully the concepts and material presented in class, and exhibit an ability to interpret data meaningfully and independently in projects and assignments.

### **Studio Art Elective Course**

This course meets less than six days of the eight-day cycle and does not receive credit as a core art course. This year's offering is:

#### **Photojournalism, Introduction to (All Forms)**

½ CREDIT, YEAR COURSE, THREE PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Freshmen with teacher approval only. This is a half-credit art elective and does not qualify as a core art credit that counts towards graduation requirements.*

*Note: Course credit does NOT count towards meeting a student's Studio Arts graduation requirement*

This is an introductory course in journalistic writing, editing, design and photography. Students learn the skills to produce an informative, visually stimulating and professional-quality print publication. The goal of this class is to produce Landon's *Brown and White* yearbook. Instruction in Adobe InDesign and Adobe Photoshop is a key part of the course. No prior knowledge required.

## WORLD LANGUAGES

The Landon School World Languages Department teaches the disciplines of Chinese, French, Latin and Spanish. Our mission is to prepare the boys so that by the conclusion of their formal study they will have achieved the following goals:

- Meet and exceed the equivalent of an intermediate to high level of proficiency, as defined by the American Council on the Teaching of Foreign Languages (ACTFL).
- Understand thoroughly and appreciate the structure of the language studied.
- Broaden and enrich their ability to communicate effectively.
- Become more aware of the world in which they live.

Fluency in a modern language will prepare students to go anywhere in the world where the language is spoken and be able to meaningfully communicate with the people who speak the language that they have studied. Fluency in Latin means that students will be able to read and write Latin at a sophisticated level. This mastery will enable them to read and analyze the works of the significant figures in the classic world defined by the breadth of the Roman epoch and its influence on Western civilization.

By understanding thoroughly and appreciating the structure of the language studied, the students will have a complete knowledge of the elements of the language and the way they function; the logic of the grammar and the word order; and the subtleties of the differences in diction.

By broadening and enriching communication abilities, students will benefit from the experience of appreciating in greater depth a concept expressed in a language other than English; become aware of cultural nuances and values reflected in the use of the language studied; become acutely aware of the details in managing the skills of communication while using the language studied; and apply the knowledge gained in studying a world language to express themselves in English more efficiently and effectively.

By becoming more aware of the world in which they live, students will ultimately gain an appreciation for the cultures in which the target language is or was spoken; widen the lenses through which they perceive the human experience, both present and past; and celebrate the diversity of the world in which we live, both at home and abroad.

### **LOWER SCHOOL PROGRAM**

Learning a new language is fun and exciting. Repetition with lots of practice in the classroom and at home is the key to learning a new language. Students listen and repeat words and expressions, sing songs, play games, and create and present projects to reinforce what they study in class. Also, they hear, read, write, tell and re-tell stories through a variety of Total Physical Response classroom activities. Students in Third Grade Spanish meet twice per eight-day cycle. The course features different themes such as the Spanish alphabet, pronunciation, greetings and goodbyes, classroom commands and school materials, numbers 0-31, colors, family members, the parts of the body, basic foods, weather, and clothing. Students hear and read the story of El Ratón Pablito, and they create their own accompanying

comic book about the story. The vocabulary and phrases learned are repeated throughout the year and incorporated in student projects and presentations. As a final project, students team up to create a game board to review the year's lesson, and their peers all engage by playing the games.

Students in Fourth Grade Spanish meet twice in the eight-day cycle. A wide range of themes is taught and reinforced through projects and presentations. Some topics that the Fourth Grade focusses on include describing one's family, asking and answering basic questions, talking about the weather, cultures of Spanish speaking countries, talking about and sampling foods from the various countries, and a pen-pal program with a Lower School in Valladolid, Spain. In pairs and individually, students create games, posters, Power Points, projects, stories, and comics to review the themes that are taught.

Students in Fifth Grade meet three times per cycle. The students start the year by exchanging information with their pen-pal partners from Spain. At the end of the pen-pal project, students send and receive a video from their pen-pal partner. The classes from Landon and Spain also exchange care packages with cultural aspects of their respective countries/regions. Through a variety of projects, presentations, and activities, students are actively engaged and challenged to listen, read, write and speak Spanish throughout the year. The Fifth Grade students also have the opportunity to collaborate with the Middle School Spanish classes. Their older peers share information about influential Afro-Latinos, and the Fifth Grade students have the opportunity to ask fundamental questions in Spanish. Then the younger boys create fictional stories that they present to the Middle School Spanish classes. Towards the end of the year, students interview "the special person of the day," reinforcing the themes and topics studied throughout the year. Students also engage in a class-wide daily routine project and survey.

## **MIDDLE SCHOOL PROGRAM**

### **Grade 6 — Chinese, French, Latin and Spanish**

World language is a requirement for all grade 6 students, and boys have the opportunity to pick the language of their choice. There is increased exposure to language through listening, speaking and writing. Focus remains on honing aural skills, acquiring vocabulary, and developing accurate use of the language in simple situations.

**Form I World Languages — Chinese, French, Latin and Spanish**

Form I classes continue to emphasize pronunciation, the fundamentals of grammar, reading, writing, speaking, and listening comprehension. The classes also widen the base of vocabulary upon which future courses in the language depend. The cultures of the countries where the language is spoken are considered, as are the achievements and customs of its peoples.

**Form II World Languages — Chinese, French, Latin and Spanish**

Students entering Form II have already undertaken significant instruction in a world language; accordingly, the grade's courses offer a continuation of the program with increasing emphasis on reading, more complex grammatical constructions, deeper vocabulary, and free oral expression. The Chinese, French and Spanish classes are conducted largely in the language studied, and students are expected to communicate in that language. In Latin, the students begin to read and write the language in a more sophisticated fashion.

**Note for students new to language study when entering Form I or Form II:**

Students new to Landon's Form I or Form II who have no previous language experience can take Spanish I. This is an accelerated course that covers the first two years of Middle School Spanish study. The course starts with an exposure to Spanish through listening and speaking and, as the year progresses, the course emphasizes pronunciation, the fundamentals of grammar, reading, writing, speaking, and listening comprehension. The class establishes a base of vocabulary upon which the future courses in Spanish depend. The cultures and achievements of Spanish-speaking countries and people are also covered.

**UPPER SCHOOL PROGRAM****CHINESE****Chinese III**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

The course emphasizes the gradual building of aural, oral and character-writing skills. Students not only expand the vocabulary bank and new grammatical structures in each lesson, but also develop listening, speaking, reading and writing skills throughout the year. Students also study Chinese culture related to each chapter of the text.

**Chinese IV**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This course begins with a thorough review of the grammatical constructions and vocabulary studied in Chinese III. The units covered in the course continue to enhance the students' knowledge of fundamental vocabulary and present increasingly complex grammar. There is also an emphasis on reading, speaking and character-writing skills. Chinese culture related to each chapter of the text is woven into many aspects of the course.

**Chinese V**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This course offers Chinese language instruction at an advanced level. The course is conducted in Chinese. It aims to provide a solid foundation in grammar and expand the students' ability to handle everyday situations and tasks in Chinese. Students will be asked to write short essays. Oral, aural, reading and writing skills will be emphasized through reading intermediate-level materials in Chinese.

**Senior Honors Chinese (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

The goals of this course include the achievement of a solid, intermediate-level competence in three communicative modes in Chinese: interpersonal, interpretive and presentational. The course is taught primarily in Chinese. Students are expected to write short essays and make formal oral presentations in class frequently. They are also exposed to the formats of the AP exam and trained in aural, oral and written exercises. The course also emphasizes the different aspects of the Chinese culture and traditions. Students will sit for the AP exam, unless alternative arrangements are approved by the instructor.

**FRENCH****French III**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

Class is conducted primarily in French, and students are required to speak mostly French. This course will continue the study of French emphasizing the expansion of vocabulary and the acquisition of more complex grammatical structures. Students will have access to authentic French through the use of a variety of multimedia sources including short stories, newspaper and magazine articles, music, films, and podcasts. Oral and written proficiency will be the focus of this class as students will be required to use the language in a wide variety of familiar situations.

**French III (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Teacher recommendations with the approval of the department chair.*

Class is conducted almost exclusively in French, and students are required to speak mostly French. This Honors course exposes students to the same material and methods used in French III, but the pace of the course is faster and the study more intensive. This course is intended to give the students greater facility in all aspects of the language: written, oral expression listening comprehension and reading.

**French IV**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

French IV is primarily a conversation course in which students regularly practice handling practical situations that they would confront if living, studying or traveling in a French-speaking country. Through theme-based, real-life situations, students expand and perfect their knowledge of grammar and vocabulary, as well as their comprehension and pronunciation by actively

participating in discussions, role-plays, impromptu presentations and exposés. As mastering a language means heightening one's awareness of cultural differences, students also study, discuss and even interpret short literary works, songs, television shows, advertisements/commercials, films and articles of the French-speaking world. The course is aimed at developing confidence in stretching language abilities so that, through taking language risks, students maximize their communicative ability.

### **French IV (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Teacher recommendations with the approval of the Department chair.*

French IV (H) is primarily a conversation course in which students regularly practice handling practical situations that they would confront if living, studying or traveling in a French-speaking country. Through theme-based, real-life situations, students expand and perfect their knowledge of grammar and vocabulary, as well as their comprehension and pronunciation by actively participating in discussions, role-plays, impromptu presentations and exposés. As mastering a language means heightening one's awareness of cultural differences, students also study, discuss and even interpret short literary works, songs, television shows, advertisements, commercials, films, and articles of the French-speaking world. They should be able to create long, coherent paragraphs and dialogues using vocabulary and grammar they have studied. Students should be able to understand an oral dialogue or narrative in any tense and with some complex structure. They should be able to read and understand an authentic text with limited use of complex structures.

### **French V**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This advanced course is taught exclusively in French and is designed to allow a student to reach a high level of proficiency in both oral and written French. Students study and enhance their appreciation for Francophone culture through various media. Complete works of Francophone literature are read and studied. Creative writing as well as literary criticism are taught and practiced. Oral presentations in French help provide students with life skills to communicate at ease in all Francophone countries.

### **French V (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Teacher recommendations with the approval of the department chair.*

This advanced course is taught exclusively in French and is designed to allow a student to reach a high level of proficiency in both oral and written French. Students study and enhance their appreciation for Francophone culture through various media. Complete works of Francophone literature are read and studied. Creative writing as well as literary criticism are taught and practiced. Oral presentations in French help provide students with life skills to communicate at ease in all Francophone countries. By the end of the year, they should be ready to read various works of AP literature. They should be able to write essays using a variety of grammatical structures and consistent tenses. The content of all oral and written material to which the students are exposed is selected to encourage an appreciation of cultural similarities and differences. The

design and execution of the course as a whole should kindle the students' enthusiasm for further study of the French language and culture.

### **Senior Honors French (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Teacher recommendations with the approval of the department chair.*

Class is taught solely in French, and the students are required to speak only French in class. The first trimester will be spent exploring the Francophone world through the window of the news. Students will watch and listen to news broadcasts from a variety of Francophone countries, seeing current events as they happen from different perspectives. Further, the students will listen to a book on tape which will take them through Paris and eventually down to the south of France. Frequent oral presentations will give the students ample opportunity to hone their speaking skills. Likewise, we will introduce a second book on tape during the second semester which begins in Paris but quickly takes the students to Switzerland. The Francophone world that has been emphasized from the beginning of the Upper School curriculum will now come to life. A unit on Impressionist art will conclude our senior's French experience at Landon.

## **LATIN**

### **Introduction to Latin**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This course is offered to students entering the Upper School with little or no experience in Latin. It emphasizes the beginning elements of grammar, reading and writing, and establishes a base of vocabulary upon which future courses in the language depend. Students study basic vocabulary, grammar and syntax, and then progress to more advanced concepts. Grammar topics for this course include noun morphology, verb tenses, noun-adjective agreement, pronouns and basic Latin syntax. In addition, students explore Greco-Roman civilization through a series of readings, both in English and Latin.

### **Latin III & Latin III (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This course continues the study of Latin beyond the intermediate level, beginning with a review of all Latin grammar. Active, conversational Latin and Latin composition are emphasized as a continuation of our Middle School curriculum. Honors students at this level spend less time on review and focus instead on translation fluency and advanced grammar concepts. Students transition from the grammar-centric work of the Cambridge and Wheelock's Latin texts to the translation and analysis of original Latin literature.

**Latin IV & Latin IV (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

In this course, students build on the knowledge of grammar, vocabulary and culture that they gained from the Cambridge and Wheelock's Latin series and apply it to lengthier, original Latin texts. Through the study of these works, students become familiar with poetic and rhetorical devices, text in meter, and mythology. Honors students focus on developing their critical thinking skills and argumentative essay writing, both of which are important for their progress in the Latin program. Assignments include papers and projects about cultural and literary aspects of classical Rome. Original texts studied in this course include works by Ovid, Catullus, Caesar, Cicero, Vergil and Apuleius.

**Latin V & Latin V (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This is a fast-paced, advanced course that focuses on the reading and analysis of Latin poetry, with a particular emphasis on Vergil's Aeneid. The first three marking periods are devoted to the intensive study of this epic poem. Students will focus on translation fluency, sight reading, analytical writing, literary devices, and metrical reading. The fourth marking period will feature selections from the works of Catullus, Horace, and Ovid as students explore other thematic and metrical aspects of Latin poetry.

**Senior Honors Latin**

*Prerequisites: Completion of Latin V Honors.*

This multi-faceted, honors-level Latin course is designed to harness the strong Latin language skills of students who have completed Latin V Honors. Whereas traditional advanced Latin courses focus on translation and analysis, the aim of this course is to develop reading, speaking, listening, and composition skills by way of various methods, including conversational Latin components and composition based on the writing styles of Caesar, Cicero, and other authors of the classical age. Students will "activate" their knowledge of Latin through dialogues, writing about their experiences, presentations, and critical analysis, all in Latin.

## SPANISH

### Spanish I

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

Students entering the Upper School with little or no experience in Spanish take this course. It introduces pronunciation, emphasizes the beginning elements of grammar, reading, writing, speaking and listening comprehension, and establishes a base of vocabulary upon which future courses in the language depend.

### Spanish II

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This course is a continuation of the program with increasing emphasis on reading, vocabulary development and free oral expression. The grammar presented in first-year Spanish is reviewed, and all remaining major structures are introduced, including the future tense, the conditional tense, the compound tenses and the subjunctive mood. Hispanic culture, presented in short readings in Spanish, is woven into many aspects of the course.

### Spanish III

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

The course is designed to strengthen the student's command of spoken and written Spanish. Special emphasis is placed on discussing present, past and future events. The student also strengthens his ability to express feelings, opinions and assumptions by using the subjunctive and conditional constructions. Along with the mastery of grammar and the development of vocabulary, considerable attention is given to the development of reading skills by studying brief works of Spanish and Latin American literature.

### AFS (Advanced Foundational Spanish)

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

Prerequisite: *Permission of the department based on performance in Spanish II and III.*

This course rapidly reviews all elements of grammar and emphasizes speaking, listening, reading, and writing at an accelerated pace in preparation for our honors curriculum. During the first semester, students focus on everyday topics and events to build an expansive vocabulary, to prepare skits, to converse extemporaneously, and to sharpen their reading, writing, and listening skills. The second semester continues this focus, but adds the major component of reading short literary works from the Hispanic world with the goal of generating discussion, cultural understanding, historical perspective, and original dramatizations. This course functions as the entry point for all honors courses and is required for advancement to Spanish IV (H).

**Spanish IV**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

Continuing the approach followed through Level III, this course reviews and reinforces all of the grammar previously studied and requires the student to use it to communicate effectively in Spanish. The course focuses primary attention on the four linguistic skills of reading, writing, speaking, and listening, and emphasizes the concurrent utilization of all tenses and moods. Making use of culturally relevant literature, the course has the goal of strengthening both the student's language skills and the student's cultural awareness.

**Spanish IV (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisite: Permission of the department based on performance in Advanced Foundational Spanish (AFS).*

This course reinforces the previously studied grammar and syntax, while emphasizing effective application of all the linguistic skills to promote high-level communication. The course employs a variety of literature and media to promote precise and increasingly sophisticated writing, as well as extemporaneous speaking through conversation and debate. The course focuses on culturally relevant topics to strengthen the student's understanding of the peoples who speak Spanish.

**Spanish V (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Spanish IV Honors, teacher recommendations, and/or approval of the department chair.*

The goals of this course include achievement and strengthening competence in speaking, listening comprehension, reading and writing. Taught entirely in Spanish, this class promotes a high level of daily discussion and debate through the use of literary selections representative of Spanish and Hispanic cultures. The principal literary emphasis is on the modern short story, but attention is also given to poetry and drama. By the end of the course, will be prepared and may elect to sit for the AP exam.

**Spanish Grammar and Conversation**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

This course reviews and reinforces all previously studied Spanish grammar and focuses in particular on conversational speaking and listening skills. The course employs a variety of literature and media to promote clear, concise writing and to foster students' confidence in extemporaneous speaking through daily conversation and discussion. Students are expected to communicate exclusively in Spanish. This course is offered in alternating years with SPANISH READING AND CULTURE.

**Spanish Reading and Culture**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

The principal aim of this course is to achieve competence in speaking, listening, reading and writing, and to develop sensitivity to Hispanic culture. The grammar is presented and illustrated through films and readings, including short literary works. The selections present Hispanic life and culture in context. The course is taught in Spanish, and students are required to make all of their

spoken and written observations in the language. This course is offered in alternating years with SPANISH GRAMMAR AND CONVERSATION.

### **Senior Honors Spanish (H)**

ONE CREDIT, YEAR COURSE, SIX PERIODS OVER AN EIGHT-DAY CYCLE

*Prerequisites: Teacher recommendations with the approval of the department chair.*

In this AP-level seminar, the course is conducted entirely in Spanish. Students read, discuss and write essays analyzing peninsular and Latin American works representative of a wide range of genres and epochs. Students will sit for the AP exam, unless alternative arrangements are approved by the instructor.

## INDEPENDENT STUDY

Form VI boys have the opportunity to undertake one semester-long independent study project in lieu of one academic course during their senior year. Graduation requirements remain the same: a boy must take at least five courses in each semester of the Form VI year, one of which could be a semester-long independent study. A student's academic program must also conform to the approved sequence of courses as determined by the various academic disciplines.

During the course selection process, Form V boys may petition to undertake an independent study during the Form VI year. This petition entails:

- a detailed description of the intended inquiry;
- a detailed description of the culminating work product, which may be research-, project- or performance-based;
- identification of a faculty mentor who has agreed to guide the study (note: faculty members may not lead more than one independent study per semester);
- identification of a secondary evaluator (from the relevant department) who—in conjunction with the mentor and the department chair—will assess the independent study as the student's "evaluating group."

The petition requires approval of the Upper School head, the department chair, the faculty mentor and the secondary evaluator. Students applying for an independent study would be required to select a full slate of traditional classes during course sign-ups; if approved, the independent study would replace the appropriate class. In addition, the petition must also conform to state as well as Landon graduation requirements; i.e. a student's Form VI curriculum must include either senior English electives or an independent study in English. Finally, an approved independent study does **not** supplant Landon's graduation requirement of fulfilling an Independent Senior Project (ISP), unless the original proposal specifies using the ISP as part of the independent study. Those students wishing to extend a second-semester independent study into an ISP must petition the ISP committee for such an expansion of the original study.

An approved independent study requires that the student:

- commit to a schedule of work equivalent to that required by a non-honors academic class (roughly six hours per week), and assessed by his faculty mentor;
- meet with his faculty mentor once per eight-day cycle to share progress, ask questions, and receive guidance on future work direction;
- meet with other faculty-mentor partnerships three times per semester in gatherings arranged to share progress, ask questions, and receive guidance on future work direction;
- receive a formal interim report from his mentor at the mid-point of each marking period;
- meet clearly-articulated work and product benchmarks established and assessed by the evaluating group (department chair, mentor, secondary evaluator);

- submit his culminating work product on the designated semester exam day for the appropriate department.

Marking period and semester-long grades will be established by the evaluating group and noted on the student's transcript.

A boy may take two semester-long independent studies in the Form VI year, provided that each experience is approved using the standard procedure, and that each study meets the necessary requirements for participation and final product.

## LANDON-HOLTON COORDINATE PROGRAM

**Coordinate Program Overview:** Landon School and Holton-Arms have partnered together to provide juniors and seniors the opportunity to cross-register for specific courses offered at both schools. Cross-registration courses often meet from 7–7:50 a.m., or during evening times based on the course. The days of the week that classes meet will be determined by the instructor and announced at a later date. Attendance at all meetings is mandatory.

**Admissions Prerequisites:** Admission into this program is competitive. Students will be admitted based on: academic standing; recommendation of teacher, department chair and/or administrator; existing attendance record; writing and reading skills; expressed intellectual curiosity; and demonstrated work ethic.

### **Multivariable Calculus and/or Differential Equations**

*ONE CREDIT, YEAR COURSE, COURSE IS HOSTED AT LANDON or HOLTON*

*Prerequisites: Completion of Calculus BC (AP) and approval of the department chair.*

ONE CREDIT, YEAR COURSE, MEETS THREE TIMES PER WEEK IN THE MORNING, 7–7:50 A.M.

This advanced-level math course, designed for students who have completed the BC Advanced Placement syllabus, deals with functions of more than one independent variable. Topics will include partial differentiation, multiple integrals, vector-valued functions and differential operators, Stokes' and Green's Theorems, and methods of differential equations. The physical concepts of flux, circulation, divergence and work will receive special attention, as will the central notion of a conservative field.