



# COURSE CATALOG

HIGH SCHOOL







## Sciences

Our graduates have the confidence to come up with creative, practical solutions to the scientific challenges that come their way. Our classes are rich in class discussions, and they ensure that all scientific thinking comes from experiments and experience. The students have the opportunity to express their ideas and scientific concepts through writings, illustrations, and graphs in their main lesson books. The sciences are taught at LCWS through weekly track classes and through experiential three- to four-week long science block classes during Main Lesson. The track and block classes complement each other so that students receive a rich science education that emphasizes experiential learning and observation to develop a keen scientific mind and a deep understanding of the world. Our science program is tied to the Next Generation Science Standards.

## SAMPLE SCIENCE BLOCKS:

### GRADE 9

#### **Chemistry: Elements and Molecules**

This atomic theory course introduces students to the building blocks of matter in preparation for further study in chemistry and physics. We begin by investigating properties of matter at the macroscopic level, then study the atomic theory underlying the properties we observe. Students learn how historical interpretations of matter led to modern understandings of the atom. We journey group-by-group across the periodic table, exploring how elements' atomic structures influence their behavior in chemical reactions. In doing so, we uncover periodic properties—including reactivity, electronegativity, and radioactivity—that give the periodic table both its beauty and utility. Practical coursework includes a combination of lab work and modeling; students learn techniques essential to the high school chemistry laboratory and use a variety of materials to visualize atomic and molecular structures.

### GRADE 9

#### **Earth Science: Geology**

This introductory geology course introduces students to the role of the geosphere in supporting life on Earth. Students consider topics in geomorphology, geochronology, stratigraphy, hydrology, and mineralogy, unearthing our planet's geological story. We explore how this story has unfolded across vast scales of time and space and situate ourselves within its most recent chapter. Students learn how geological processes influence every layer of the biosphere, from the bedrock below us to the birds above. Practical coursework includes a combination of lab work and modeling; students learn techniques essential to field work and use a variety of materials to simulate geological processes.

### GRADE 9

#### **Physics: Thermodynamics**

Students explore the concepts of warming up, cooling down, thermal equilibrium, temperature, thermal expansion and contraction, specific heat capacity, latent heat, and thermal conductivity. Students participate in experiences, demonstrations, and group experiments to understand the relationship of these concepts to our daily lives. Students learn how these concepts have helped to shape our planet through practical applications such as the production of energy.

### GRADE 10

#### **Chemistry: Inorganic Chemistry**

This course takes an overview approach to general chemistry with a focus on acid-base chemistry. We begin by investigating the properties of water as an introduction to chemical structure, electronegativity, polarity, and solubility. We then study acids, bases, salts, and the reactions they partake in, using stoichiometry to demonstrate how matter is conserved as it changes form. Coursework is largely lab-based; students gain hands-on practice with techniques essential to the high school chemistry laboratory.

### GRADE 10

#### **Physics: Mechanics**

Mechanics builds on the student's understanding of the physical world to bring a greater understanding of motion and rest. Through lived experiences and practical experiments, the students begin to uncover fundamental properties of mechanics for themselves. In this class, students study velocity, acceleration, gravity, inertia, and energy. They will use these concepts and applied mathematics to understand complex interplays of motion such as collisions and the ways gravity moves celestial objects.

### GRADE 10

#### **Biology: Ecosystems**

In this block, students study ecology at different levels of organization. We begin with populations, expand to communities, and then consider the biosphere as a whole. At all levels, we explore how the biotic and abiotic components of an ecosystem coexist interdependently, generating both emergent capabilities and tensions. We investigate human impacts on climate and consider climate justice perspectives as we look ahead into the possible futures of our shared planet. This project-based course contains a significant experiential component; students design an experiment, collect data in the field on a multi-day camping trip, learn how to analyze and interpret their data, and synthesize their findings into a formal lab report.



**GRADE 11****Physics: Electricity and Magnetism**

This block begins with an understanding of electrical fields, magnetism, and their interrelationship through electromagnetic induction via various experiments. Building off these ideas, students study how electromagnetism is used practically in our daily lives through understanding ideas like voltage, current, and resistance, as well as applications of our knowledge through the building of circuits with breadboards. These experiences allow students to better understand modern technology such as their cell phones, computers, speakers, and motors.

**GRADE 11****Chemistry: Organic Chemistry**

This course introduces students to organic or carbon-based chemistry. We explore how atomic structure influences molecular structure, which then influences reactivity. Topics include molecular geometry, nomenclature, functional groups, separation techniques, and synthesis reactions, contextualized in naturally-occurring organic processes and relevant synthetic applications. Practical coursework includes a combination of lab work and modeling; students learn techniques essential to the high school organic chemistry laboratory and use a variety of materials to visualize molecular structures.

**GRADE 11****Biology: Environmental Science**

This course explores the complex relationships between humans and our environment. Methodologically, we integrate geographical, geophysical, biological, and chemical understandings of the biosphere with a sociocultural studies approach, exploring how these relationships have varied across cultures. Topics include human impacts on biogeochemical cycles, anthropogenic climate change, human geography of natural hazards, European settler and North American native approaches to land management, and climate justice solutions including environmental engineering. This course combines field and lab work with readings that guide students to think critically about our shared histories while offering glimpses into our manifold possible futures.

**GRADE 12****Biology: Zoology**

This course guides students on a journey through the major phyla of the animal kingdom. Students compare and contrast the structures, systems, and behaviors within and between phyla and explore the evolutionary processes underlying these similarities and differences. The highlight of this block is a camping field trip to Hermit Island in Maine, where students join around 100 other Waldorf high school 12th graders for a weeklong field-based course on marine invertebrate zoology.

**GRADE 12****Chemistry: Biochemical Physiology**

This course serves as a general overview of topics in biochemistry, introduced in the context of plant and animal physiology. Building on prior work in organic chemistry, students explore how organisms use biochemical macromolecules for homeostasis, communication, and defense. We learn about carbohydrates, lipids, proteins, and nucleic acids through their roles in physiological systems across the kingdoms of life. Practical coursework includes a combination of lab work and modeling; students learn techniques essential to the high school biology laboratory and use a variety of materials to simulate complex physiological systems.

**GRADE 12****Physics: Optics & Quantum**

This course explores light as both perceptual experience and physical phenomenon. Topics include color theory, reflection and refraction, interference and diffraction, and visual perception. We conclude with an introduction to modern quantum physical interpretations of light, studying the foundational historical experiments that steered classical optics towards quantum perspectives of wave-particle duality and quantization. Building on prior understanding of light as an electromagnetic wave, we can then consider how viewing light as a particle helps us conceptualize phenomena like fluorescence. Coursework is lab-based; students use mirrors, prisms, lenses, spectrometers, lamps, and lasers to investigate optical phenomena.



## SCIENCE TRACK CLASSES

Our high school science track classes cover a variety of subjects, both new and in review. Sometimes, the track classes support a main lesson block, while other times they cover separate material. Each year of the high school track class, while varied in subject matter, also has a main area of focus.

### GRADE 9

The focus is on cellular biology and expanding the student's knowledge of cells to support their work in coming years in ecosystems, zoology, and evolution.

### GRADE 10

The focus is on genetics, going more in-depth into DNA and RNA. Students learn how structural changes to the genome lead to beneficial or deleterious modifications to the organism.

### GRADE 11

Students learn the basics of engineering and computer science, giving students a chance to more fully understand some of the technological conveniences of their day-to-day lives through an understanding of binary, transistors, circuits, logic, and coding.

### GRADE 12

The focus is on the four fundamental forces: gravity, electromagnetism, the strong nuclear force, and the weak nuclear force. Students learn about key scientific ideas such as radiometric dating and field theory while bringing in some of their newer math skills to reexamine classical physics concepts like acceleration.





# Mathematics

Mathematics is a doorway into a uniquely human way of thinking. We seek to elevate students' ability to reason logically and clearly. Our students explore mathematical thinking for both technical mastery and depth of understanding. We study the connections between complex ideas and experience the satisfaction of solving genuinely challenging problems. Whether they're applying their knowledge of trigonometry, exploring mechanics, or strengthening their skills in deductive reasoning while uncovering the mind-bending truths of non-euclidean geometry, they are making connections between logic and inspiration.

Our mathematics program meets common core standards and is inspired by the Illustrative Math curriculum.

## MATH BLOCK CLASSES:

### GRADE 9

#### **Descriptive Geometry**

Students build on their work with platonic solids by drawing two dimensional plane projections of them, utilizing the graphic science of "descriptive geometry." Plates are developed that show several 2D projections of the 3D shapes. Distances and visibility of lines and points are determined from the plates. This graphic science develops the students' visualization skills, analytic thinking, and precision with drafting.

### GRADE 10

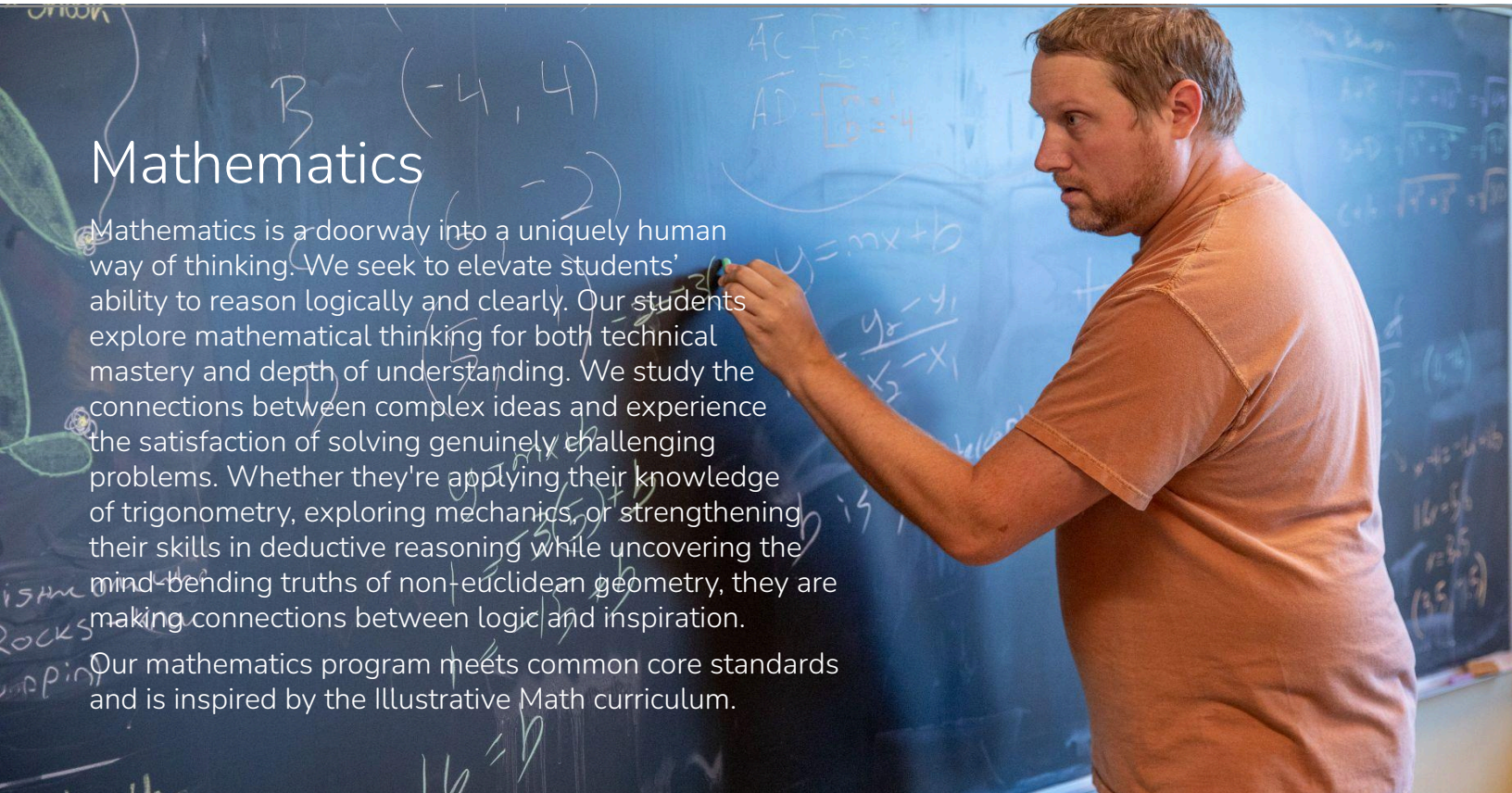
#### **Trigonometry and Surveying**

This block brings about an introduction to the concepts of sine, cosine, and tangent that will be used extensively in their math education. By grounding these concepts in the triangle and the unit circle, the students begin to develop a deep understanding. Then, this block puts that understanding into practice by having the students use trigonometry to create an accurate topological map of an area.

### GRADE 11

#### **Projective Geometry**

Projective geometry is a modern expansion of classical Euclidean geometry. Where as, Euclidean geometry, which our students learn in tenth grade, explores the nature of shapes on a "local" level, projective geometry explores the infinite projections of those shapes. This field has important influences on modern math disciplines, has interesting echoes in calculus, and supports several sciences critical to the modern world. We study Projective Geometry because it provides an opportunity for students to move beyond conventional spatial imagination toward a more purely abstract but rational way of coming to know a truth. We achieve this by making specialized drawings and logical proofs, then considering what would happen under certain un-drawable or un-visualizable conditions – namely the behavior of geometric objects "at" infinity. Also, we studied the properties of infinity and its cardinalities.





## GRADE 12

### Statistics & Research Methods

Statistics is used to summarize large amounts of information, as well as to make predictions about the future from the present. This important field is increasingly used in our world. Through this main lesson block, students will gain a better understanding of how statistics can be used to draw conclusions, as well as learn the methodologies required to generate meaningful and accurate data sets.

## MATH TRACK CLASSES:

All of our track classes are supported by Main Lesson content in mathematics. Each year of track classes focuses on a specific idea, and we continue to work in other areas and fields of mathematics to keep students' mathematical thinking sharp.

## GRADE 9

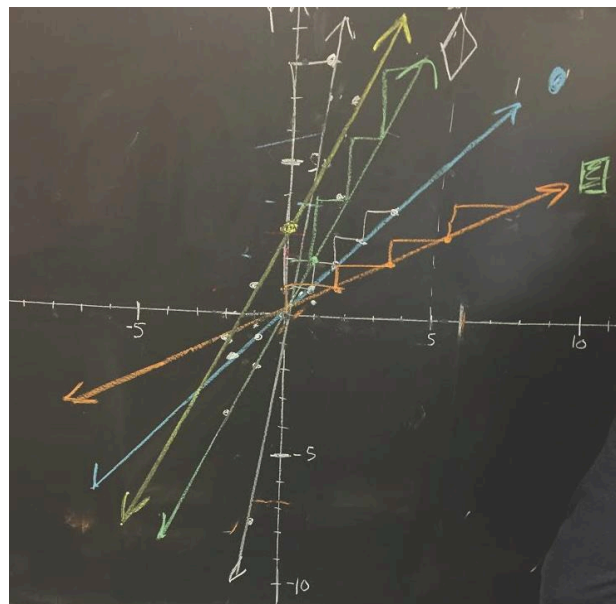
### Algebra I

Students continue to expand their knowledge of both linear equations and systems of equations, using them to crack open a wide range of applied problems. They study polynomial arithmetic and functions. This includes gaining a deeper understanding of the nature of exponents (including negative and fractional exponents) and factoring polynomials. By the end of this class, most students are not only able to perform many technical skills, like translating between applied scenarios and systems of equations, but they are also able to understand how algebra can be used to model and visualize many real world and practical problems.

## GRADE 10

### Geometry & Trigonometry

This year focuses on in-depth understanding of the key geometric shapes of triangles and circles. By practicing with these shapes and variations of them in both 2 and 3-dimensions, the students gain an understanding and appreciation of area, surface area, and volume, as well as understanding why calculating these things matter. Students learn the core tenants of trigonometry, gaining knowledge of sine, cosine, and tangent and the various ways these ideas can be applied to real world situations. They also study the conic sections: parabolas, circles, hyperbolas, and ellipses.



## GRADE 11

### Algebra II

This class focuses primarily on functions, gaining an understanding of how they are used, their notation, and the many versions of them, such as rational, exponential, and trigonometric functions. This knowledge is tied directly into the visualization of functions, helping students understand graphing and the transformation of functions. In addition to this, students continue to expand on some of their statistical knowledge, and they learn how to work with imaginary numbers.

## GRADE 12

### Introduction to Calculus

This class will explore the applications of calculus to various practical engineering, biological, economic, and geometric problems. The course is intended to prepare a student for the possibility of entering a math-intensive college track such as engineering, pre-medicine, physics, or mathematics. It explores derivatives and integrals, allowing the students to understand the fundamental theorem of calculus.



## English

English classes focus on developing study skills, critical reading and writing skills, and comprehension. To learn to think and write, we start by learning to read. This time we aren't trying just to decode words, but looking closely at how the words, sentences, and paragraphs on the page work together to move and change us as readers. As you respond to great literature, from Octavia Butler to the *Odyssey*, you will write often and learn to write well. From the critical essay and research paper to the short story and poem, your writing will reflect and shape your thinking, and help you explore the mystery of self.

### SAMPLE ENGLISH & HUMANITIES BLOCKS

#### GRADE 9

##### Tragedy and Comedy

This main lesson begins with a look at the two fundamental human experiences of laughing and crying, and how they relate to tragedy and comedy. After studying the origins of drama, the class reads *Antigone* by Sophocles and uses it to explore the tensions between the needs of the individual and those of the group. We follow the history of drama in different cultures, including tragedy in Japanese Noh theater. The class finishes with a reading of Shakespeare's *Romeo and Juliet*. This experiential and academic course includes theater games, mask making, and readers' theater.

#### GRADE 9

##### The Novel

This main lesson traces the development of the novel genre from the eighteenth century through the twentieth century, and the various elements that work together to create this type of literature. Students read a contemporary novel to understand the importance of such elements as setting, character, plot and theme and then each student writes a novella to experience those elements in practice.

#### GRADE 9

##### The Odyssey

Although *The Odyssey* was composed almost three thousand years ago, it exerts a powerful influence in the modern Western world. This story of travel, violence, family, and hospitality asks compelling questions about the treatment of strangers and the



meaning of home. As part of this course, students embark on a 5-day rowing expedition on Lake Champlain. During the trip, students will ask questions about their own lives through the lens of the text, including: How do I manage an ordeal? How do I manage myself? What is my responsibility towards others?

### GRADE 10 Poetry

This main lesson explores a variety of poetic forms, and students have the opportunity to experience poetry as a poet, a reader, and a teacher. Students work with form and content, and write everything from haikus to sonnets and sestinas. Each student creates a personal poetry anthology that is handwritten and bound into a booklet. Guest speakers from different poetic traditions bring poetry alive as a contemporary art form.

### GRADE 10 Science Fiction

Science fiction is a term that describes literature set in a reality shaped by advancements of science and technology. In projecting past the everyday, works of science fiction force conversation about the possibilities in the present moment. Science fiction asks questions such as: *What is time? What characteristics of humankind do we deem so essential that they will exist in 10,000 years? How would a world without gender be ordered? If a language could hijack someone's mind, what would its grammar make them do?* In asking questions like these, science fiction opens up new ways of thinking about the "real world" and how we live in it.

In this course, students study works of science fiction, putting them into conversation with everyday reality. Students will also write their own sci-fi short stories and compose poetry. This course emphasizes the science fiction writings of queer and BIPOC writers.

### GRADE 11 Dante's *Inferno*

In eleventh grade, students study Dante's *Inferno* as it aligns with their own journey toward self-discovery and moral understanding. This medieval Italian epic poem, with its powerful themes of redemption, justice, and the soul's journey, calls on each reader to consider their own journey. Through Dante's work, students explore complex ethical questions through writing and discussion.

### GRADE 12 Human Development and Transcendentalism

This block considers the nature of the human being, child development, and the implications these have on education. In connection with this, we invite students to reflect on their educational experiences from kindergarten through high school. Readings on human development include excerpts from the Transcendentalists and other philosophers as they consider what it means to be human. We also visit the various branches of our school to make first-hand observations of children and teaching.

## ENGLISH TRACK CLASSES

English track classes meet three times a week. Grades 9 and 10 are taught with a greater emphasis on the foundations of the writing process and strategies for reading high school level texts, while Grades 11 and 12 emphasize the interpretation of literature, applying literary theory, reading complex nonfiction, and developing nuanced argument in writing.

### GRADE 9

The ninth grade core curriculum focuses on ancient texts including *The Epic of Gilgamesh* and The Bible as Literature. Students develop a vocabulary with which to discuss literature and make connections between their lives and times and the ancient worlds from which these myths come. Students also practice reading and writing about non-fiction, and are oriented to the sequence of American history through the text *An Indigenous People's History of the United States*.

The ninth grade writing curriculum starts with a focus on writing and revising complex sentences that explain the relationship between ideas, building up to writing well-structured paragraphs and short essays. Students work through the five stages of writing they will use for their academic career and beyond: brainstorming an idea, preparation/research, outlining and making a draft, writing, and revising to a polished final draft. The value of academic integrity and the conventions of proper citation are a focus of the class. Spelling, vocabulary, grammar and reading fluency at the high school level are also taught systematically and practiced regularly throughout the year.

### GRADE 10

The tenth grade curriculum focuses on texts that explore dramatic irony, tension, and even horror, including *Dr. Jekyll and Mr. Hyde* by Robert Louis Stevenson, *The Crucible* by Arthur Miller, and *Mexican Gothic* by Silvio Moreno Garcia. Literature discussion includes an emphasis on tone, style, and authorial intention. The tenth grade writing curriculum builds on sentence and paragraph level skills as students learn how to develop cogent arguments over multiple paragraphs, sequencing details and using transition words, phrases and sentences to develop the relationships between ideas. Students also produce short pieces on subjects from nature. Spelling, vocabulary, grammar and reading fluency at the high school level are taught

systematically and practiced regularly throughout the year. Word study includes an in-depth study of morphology and etymology, building up vocabulary through work with meaningful word parts.

### GRADE 11

The eleventh grade literature curriculum makes a leap into the conceptual as students are introduced to work of several key theorists whose ideas have informed a modern and postmodern understanding of literature. Students read excerpts from the work of Freud, Marx, Foucault, and others, then apply these ideas to classic texts such as *Siddhartha* and *Death of a Salesman* through original interpretation. Students also complete a lengthy essay analyzing a film of their choice from a theoretical perspective, and argumentative essays on topics of their choice.

### GRADE 12

In the first 6-8 weeks of twelfth grade, students return to the fundamentals of writing a good sentence as they focus on the art of the personal essay. Students read and discuss personal essays from authors including James Baldwin, Annie Dillard, Joan Didion, and Virginia Woolf. Students will brainstorm topics for their Common Application essay, then draft, workshop, and revise at least one essay.

From November through April, students engage with a variety of texts aimed at developing skills for cultural analysis, including visual images, fiction, non-fiction, film, and documentary. Themes will include the construction of race, gender, and power through representation. Students will compose short responses to texts. Time is also provided in class to work on the major components of the senior project paper.



# History & Social Studies

History courses cover a wide variety of topics, but they all make sure our students see the same thing: many sides. By approaching a topic from varied perspectives, reading first-hand accounts and secondary sources, and debating causes and effects, students understand different eras in a new way. You will also be asked to decide for yourself what is universal and what is individual in the human experience, and to think about how our culture and times shape who we can become.

GRADES 9, 10, 11, and 12

## American Studies ( I, II, III, IV)

This course is an interdisciplinary study of the United States, focusing on the West, Midwest, South, and Northeast in turn. Students learn about the history, geography, politics, culture, and literature of each area of the United States, with a focus on how regional events impacted the development of the country as a whole. For each main lesson, students complete a large paper, presentation, or artistic inquiry driven by a topic of their choice, with increasing expectations for complexity of research and presentation in later grades. Students will take a multi-day trip to an important cultural region of the United States in one of their American Studies blocks.

GRADE 10

## Ancient Cultures

In this course, students will study a few of the diverse cultures that existed in this time period –specifically we will study the cultures that left behind some sort of durable writing that we can interpret today. Students will learn about the daily life and philosophical underpinnings of ancient cultures, paying particular attention to the way power relations were shaped by stories. Students will also think critically about ancient history today, and how the stories we tell about the past have a big impact on how we live in the present.



**GRADE 10****The Constitution**

In this main lesson, students will develop a critical understanding of the U.S. Constitution and the legal system. Students will read and discuss the text of the Constitution while also engaging in debates about significant Supreme Court cases that relate to civil rights, racial justice, and social equity. In addition to this, we cover different philosophical orientations towards law, order, and freedom. Outside of class, students will compose a lengthy essay on an important supreme court case of their choice. Ultimately, students will reflect on the fact that we cannot choose the historical circumstances we are born in, and ask: How do we work within a set of laws that we may disagree with?

**GRADE 10****Humanity and Idealism**

Throughout history, leaders, thinkers, pacifists, tyrants, artists, and activists have imagined and fought for a better society—a 'good' society. In this three week course, students will explore the scholarship, literature, and philosophy that reflect this most human of journeys: the quest for a better world. The course will challenge students to think about the ways in which resources are utilized to create a just and fulfilling society. Through a blend of reading and discussion, role playing, collaborative projects, and reflective exercises, students will explore the practical implications of their ideals.

**GRADE 11****Medieval History and the Islamic Golden Age**

This course is a study of the changes in world civilizations, culture, and thought from the fall of empires in late antiquity through the medieval period. Our goal is to gain a greater understanding of the Europeans' medieval mindset, in contrast to the cosmopolitan view of the Islamic golden age. A focus will be to understand how both of these contributed to the evolution of the modern world.

**GRADE 11****Economics**

This block focuses on the basic principles of economics, and touches on macroeconomics, microeconomics, capitalism, communism, manufacturing and investment. We study

household economy, the role of corporations, productivity, profit and loss, supply and demand, and the foundations and functions of money, using readings from Adam Smith, Karl Marx and others as our foundation. Students will gain an understanding of the way the economy functions on and individual and a corporate level, and the effect of economic forces on the world today, particularly in light of the current economic situation.

**GRADE 11****History Through Music**

This course serves as an experiential tour through music around the world, with a particular focus on the history of world music, and the role it played in how people connected with the world around them. Through this study, students have the opportunity to explore their own personal connection to various musical forms. By building a musical vocabulary and developing listening skills, students try to hear and experience music as people of different epochs would have heard it, while simultaneously developing an awareness of the context in which people hear and experience music in our time. Students participate in class discussions, complete listening assignments, attend live musical performances, and each student presents a project based on a topic that interests them that relates to course material.

**GRADE 11****World Religions**

This course provides an in-depth introduction to the foundational ideas and beliefs of several major world religions, including Hinduism, Buddhism, Judaism, Christianity and Islam. As students explore the core tenets and practices of each faith, they are encouraged to identify and reflect on the universal elements shared across different traditions. The course particularly examines how diverse cultures have engaged with fundamental existential questions: Where are we? Why are we here? What is our purpose? In addition to group presentations on various religions compose a spiritual autobiography and engage in practical application of their learning by organizing a universal seasonal winter festival for the high school.



## World Language

Teaching a foreign language is part of educating for a more peaceful global future. The goal of our world language program is not only to give students the skills to communicate in another language, but to understand the diversity and richness of another culture — and by extension, of all cultures. In immersing ourselves in another grammar and idiom we experience a different way of seeing. We want every student to cultivate the flexibility to live into another language and culture. We also value the hard work, perseverance, risk taking and vulnerability that are essential to learning a second language. It is an experience unlike any other.

### GRADES 9, 10, 11, and 12

Weekly Spanish classes all year and participate in a 6 week Mandarin immersion culminating in the celebration of the lunar new year.





## Studio & Textile Arts

As students dive into cultural studies they draw on disciplines as wide-ranging as philosophy, mathematics, anthropology, social and political history, psychology and religious studies. Through these lessons, students come to know the world a little better—and through the world, themselves. Visual and applied arts classes are designed to gradually build artistic skills and capacities.

The goal for the arts classes closely reflects a theme in our academic curriculum: we want students to learn to see an object or situation from many perspectives, then to form and express their own unique vision. Waldorf schools continue to devote significant time to practical arts giving the confidence that they can create with their hands and be grounded in the present moment. Classes visit area museums to view exhibitions of great art and learn about them in the context of the culture in which they were produced.



### GRADE 9 Foundations of Drawing

Students explore the expressive qualities of black and white drawing in the visual arts. They expand their capacities of visual perception and creativity and continue the development of drawing skills, working with mass, contour, gesture and shading. They strive to create strong compositions that balance light and shadow with an eye toward balance of proportion, mass and volume. Working with pencils, crayon, charcoal, eraser, ink and wash, students practice drawing techniques culminating in an extended still-life study.

### GRADES 9, 10, 11, and 12 Woodwork

Woodworking courses offer students continued practice in shaping wood while introducing new concepts in how separate components are joined together. The course focuses on the fabrication of a

single project, a three-legged painter's easel with lap joint construction. A focus of the course is developing a deeper understanding of functional objects, and the relationship between three-dimensional shapes. In 11<sup>th</sup> and 12<sup>th</sup> grades, students learn to work with power tools to design and complete two major projects of their choosing.

### GRADE 9 Basketry

Starting out with an observation exercise, students analyze how baskets are constructed, then begin creating small baskets using traditional weaving skills such as twining. Students consider the question: "What is a vessel?" and work with a variety of materials. The historical and cultural richness of basketry around the world is examined, and students complete at least one well-conceived piece.

**GRADE 10****Watercolor Painting**

In this course, students return to a form they thought they knew—watercolor—and experience it in an entirely new way. Students learn how to build up and control watercolor through the use of layers, or veils. Projects include a color wheel, and a final major study: an interpretation of an Impressionist masterpiece rendered in watercolor.

**GRADE 10****Weaving**

In this block, students explore various techniques and types of weaving. Students are introduced to weaving with a small card-weaving project. Other weaving projects include belts woven on inkle looms and individual projects such as scarves, placemats and shawls woven on floor or table looms. As each weaving is finished, the students are taught how to remove the weaving from the loom as well as different methods for finishing the ends.

**GRADE 10****Cooking**

In this block, the students learn basic cooking skills and how to apply them. Skills taught are how to properly use kitchen knives for cutting various foods, how to measure ingredients, the components of recipes and how to prep various ingredients for recipes. Two classes each week are spent prepping for the school lunch program and also any prep needed for community service donations. On days that we have extra time, we prepare various dishes to eat together in class. The block culminates with a meal prepared and donated to a local charity.

**GRADE 10****Clay Sculpture and Vessels**

In this block, the students explore the various hand-building techniques for forming clay into sculptural and practical forms. The students first work from observation in sculpting natural objects out of clay. After a few weeks of this clay work, the students begin making hand-built vessels by building up the form with coils. Students also create vessels with slab work and explore surface design. The objects the students decide to keep are bisque-fired and/or glazed and fired.

**GRADE 11****Acrylic Painting**

In this continuation of the painting curriculum, students are introduced to acrylic paints, and work especially with their qualities of transparency and opacity. Years of working with color and light allow students to grasp the potential of this new medium. The final project is a self-designed work, and a focus of the class is discussion and critique in a workshop environment. We practice offering thoughts about our own and others' work with compassion and objectivity.





**GRADE 11****Clay Sculpture**

This block covers the process of sculpting busts in clay working directly with observation of the human form. The students begin the block with preliminary exercises to develop their observational skills. Next is the process of building up the bases for their sculptures by rolling the clay into coils and stacking them up into hollow vertical forms. Each student then manipulates the clay to resemble the shape of the head and neck and begins to add features. After all the features are added, the top of the head is closed, the hair is added and final touches are made. The block ends with a critique utilizing the practice of offering thoughts about our own and others' work with compassion and objectivity.

**GRADE 11****Bookmaking**

The evolution of the book parallels the development of human thought. Students are introduced to the materials, tools and techniques of bookmaking; the precise skills and logic of the process are especially suited to the eleventh grader's developed thinking and manual dexterity. Book forms include sewn pamphlets, hinged albums, and a formally bound book. In their final project students are encouraged to explore other historical, cultural, or inventive book structures and boxes.

**GRADE 12****Self-Portraits in Oil**

This culminating class in the fine arts curriculum involves working from life using a mirror to create an oil self-portrait, utilizing the work of various artists to influence and inform the piece. This is a major work of art that develops from a series of sketches to finished oil painting over 12 or more weeks, and is presented in each student's graduation display as a representation of his or her work at our high school.

**GRADE 12****Clothing Design**

In this block students explore the design of clothing from both a practical and a fashion perspective and bring their knowledge and personal expression together to design and create an article of clothing.

Skills taught include drafting a pattern from an article of clothing, altering the pattern, calculating the fabric needed, planning out the procedure for sewing and sewing the article of clothing.

**ARTS ELECTIVES:****Focusing on the Landscape**

During this Fine Arts Advanced Studio Elective students focus on using the autumnal landscape of Vermont as inspiration, including farms, gardens and local food. Students work with a variety of drawing, painting and collage materials to develop their pieces. They create a plan for their final project with the help of the instructor and choose from materials and approaches discussed in class.

**Two-dimensional Design**

After studying the work of Louis Tiffany at the Shelburne Museum, students draw images from the natural world and manipulate them to achieve in different media effects similar to the ones achieved by Tiffany. A focus of this class is to develop an understanding of the principles of two-dimensional design.

**Block Printing**

Students design and create their own woodcut designs, using principles of pattern, repetition, and composition to create a portfolio of work.

**Figure Drawing**

Students explore many approaches to the human figure, using gesture studies, contour studies, modeled drawings and portrait exercises to create more involved drawings.

**Sumi-e Painting and Japanese Poetry**

This class, jointly taught by a humanities and art teacher, combines the study of Japanese poetry with the study of Japanese ink painting, or Sumi-e. Students work with inks and washes to create their own designs in the style of the Japanese form.

**Moving Toward Abstraction**

Students study the Abstract Art movement and explore in their own artwork what it means to break away from traditional representation of physical objects.

# Music & Performing Arts

We invite every student to engage with the arts through drama, artistic movement, and music, literally searching within themselves for their own voice. Our music curriculum includes a compulsory chorus class that culminates in a major performance of a master choral work, along with music electives.

## GRADE 10 & 12

### Play Performances

In high school, students explore the historical and social significance of culturally important plays. Class play blocks, typically during sophomore and senior years, are an opportunity to study masters like Shakespeare, Shaw, Lorca, Wilde, and Williams, along with more contemporary playwrights, and to deeply explore the challenging social themes that these writers raise. Students explore vocal techniques, acting, and scenic design through the performances, and all students work both on and off stage. In addition to studying the texts and performance techniques, students learn technical design by taking up lighting, set and costume design, and stage management. Some students also take on the extra challenge of directing roles.

## GRADE 9- 12

### Instrumental Ensembles

Students in grades nine through twelve participate in weekly instrumental music classes. Ensembles perform at school festivals, community events, and the formal Spring Benefit, a culminating performance of their year's work. These performances give students the opportunity to share their hard work and experience a sense of service to others. Working as an ensemble supports the students' understanding of how individual parts come together to achieve a collective accomplishment.

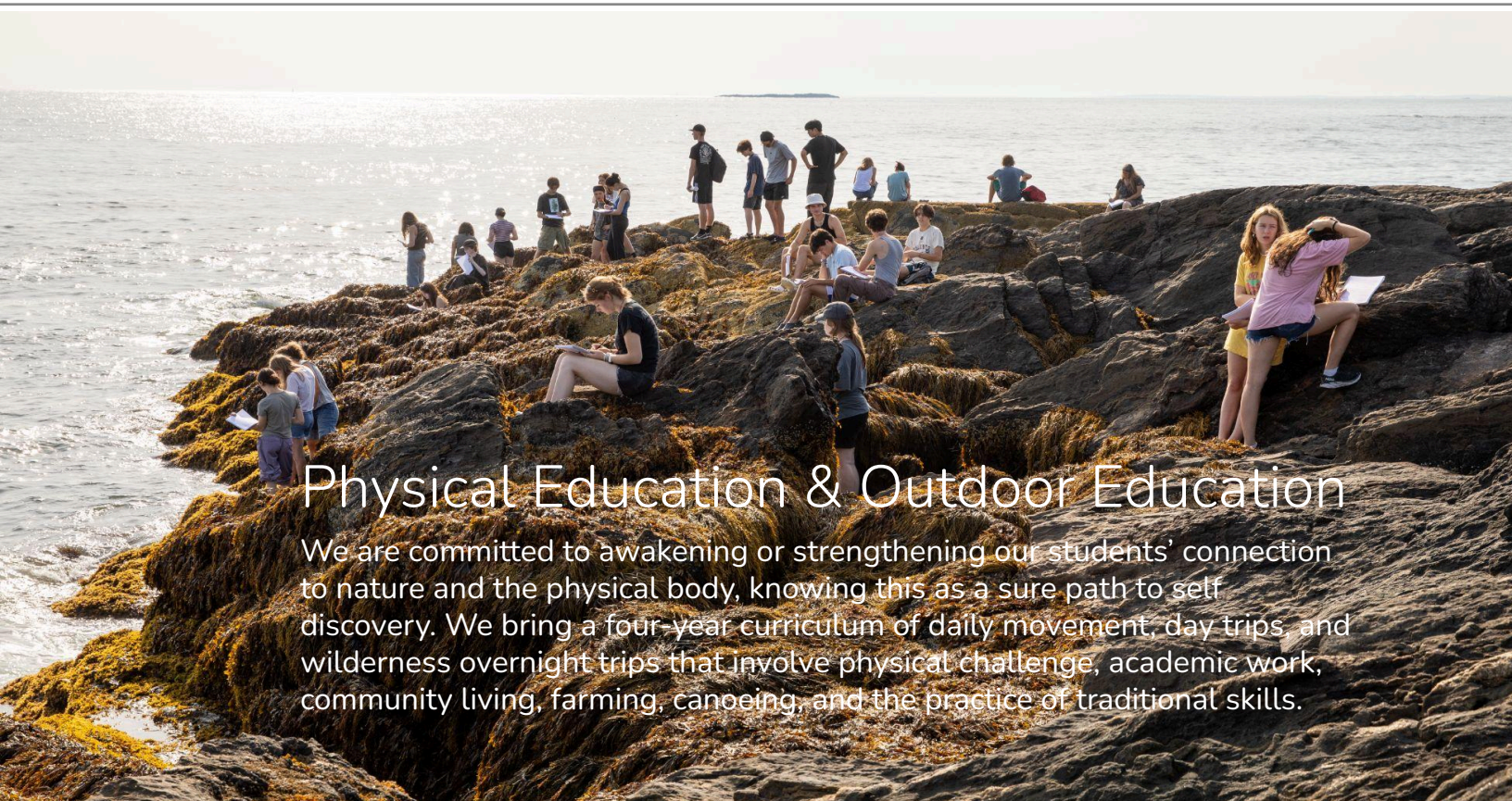
## GRADE 9- 12

### Chorus

Students experience choral music from many cultures, times, and places, and in different musical genres. Through weekly classes, they improve their vocal technique, learning to sing together with a sense of commitment and responsibility to themselves and one another.







## Physical Education & Outdoor Education

We are committed to awakening or strengthening our students' connection to nature and the physical body, knowing this as a sure path to self-discovery. We bring a four-year curriculum of daily movement, day trips, and wilderness overnight trips that involve physical challenge, academic work, community living, farming, canoeing, and the practice of traditional skills.

### DAILY MOVEMENT

Our daily movement program is in many ways preparation for our larger Outdoor Education days and expedition trips. Each school day starts with 30 minutes of activity to “warm up” for academics. Depending on the season, the classes may walk, bike, or snowshoe, or play invigorating outdoor games.

### PHYSICAL EDUCATION

Weekly classes feature seasonal sports like hiking, cross-country skiing, and basketball, as well as strength- and coordination-building exercises, spatial dynamics, yoga and team-building games.

### OUTDOOR TRIPS

Each of our outdoor trips starts by building and tending the sense of community within the group, teaches sequenced skills, and culminates in an experience in which you will practice what you have learned—often without the help of your teachers and guides. Wilderness survival skills are taught during our outdoor education classes and then directly applied by students working together on their outdoor education trips. We find that class communities are always strengthened by the outdoor experience that carries back into day-to-day life.

Natural history and environmental science lessons are taught in the field, and you will learn to discern, observe and draw conclusions coming out of your physical senses. This experiential learning is central to our curriculum.

You will take on new physical chores and adventures, learn handcraft skills, and prepare and eat healthy meals together. You will have time and space for solitary reflection, and experience a balance of freedom and responsibility that will challenge you. We can promise that our outdoor education will show you new sides of yourself.

### SAMPLE HIGH SCHOOL TRIPS

**Grade 9:** Odyssey Trip, and a Cultural Trip: US Constitution Class in Washington DC

**Grade 10:** Ecology Trip

**Grade 11:** Winter Camping Trip, and a Cultural Trip related to American History II in NYC

**Grade 12:** Hermit Island Zoology trip with other Waldorf twelfth grade classes, and the Senior Trip



# Senior Projects

The Senior Project is a capstone experience to a student's Waldorf education. Beginning at the end of eleventh grade, students start to do preliminary research in an area of personal interest. Seniors work with the Senior Project Committee, in class and out of class, to craft the topic into a thesis statement or question that connects to the wider world. Along the way, students use their toolkit of skills in organization, documentation, and research. Throughout the academic year, seniors individually work with a Senior Project Mentor, complete appropriate community service that is relevant to their developed topic, journal regularly, write a well-composed paper, and, finally, deliver a well-organized presentation to the community about their area of study.

## Senior Project Presentations

Seniors have explored a wide variety of subjects for their senior projects. Past topics have included:

- What role does sustainable entrepreneurship play in the VT economy?
- Eating Disorders and Body Image: What are they and how are they influenced by social constructs and social media?
- Understanding the importance of community in the opioid crisis
- How do team and individual sports affect a child's development?
- How can we improve the quality of life and job opportunities for people living with serious mental illness?
- How can using refillable water bottles help reduce plastic waste?



Over the summer between junior and senior year students keep a research journal and bibliography, and refine their topic. By fall they have identified a community mentor with whom they will work closely over the year. Each senior project includes a research component, artistic or practical component, and community service. Each student integrates eight hours of community service into his or her project.

As students spend 100+ hours with their subject, they encounter and overcome many dead-ends and problems. They learn to persevere through difficulties, find new resources, and examine the subject from multiple perspectives. In the spring of their twelfth grade year each senior presents an extensive written report and some other product (ranging from a novel to a hand-built telescope) that represents his or her best work. The project is presented to a committee of teachers and community members and before the entire school. Students learn valuable public speaking skills as they present and explain their work before a group.

For many of our students, the senior project is the most challenging, memorable, and valuable experience they have at LCWS.