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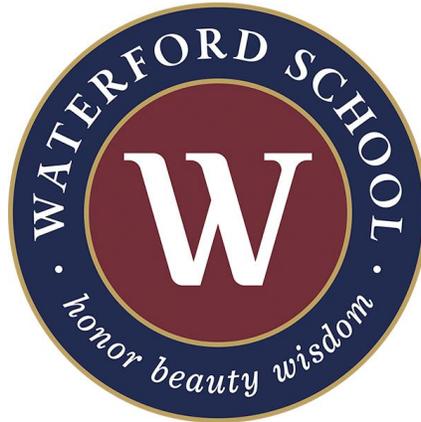
**WATERFORD
SCHOOL**

CURRICULUM GUIDE

2022-2023

Table of Contents

Lower School	4
PreK	5
PreK-3	6
PreK-4	9
Kindergarten	11
Class I	14
Class II	17
Class III	21
Class IV	24
Class V	28
Middle and Upper School	32
Academic Policies and Procedures	33
Introduction to Academics	36
Computer Science	38
English	40
History	43
Math	46
Science	53
World Language	57
Physical Education	64
Athletics	68
Introduction to the Arts	74
Dance	75
Music	77
Theater	80
Visual Art	83



LOWER SCHOOL CURRICULUM GUIDE



Lower School Program:

Learning at Waterford School flows from beginnings grounded in the rich liberal arts tradition. The curriculum in Lower School is research-based and informed by knowledge of how children learn. The curriculum includes information, as well as the ways of understanding that humans have developed through the ages. To experience the Waterford curriculum is to be educated rather than simply instructed. The offering of courses in the sciences, history, literature, and the arts ensures the engaged, joyful pursuit of learning at a very early age.

Curriculum in Lower School is developed by faculty who are guided by the Lower School Head and Assistant Lower School Director, as well as Department Chairs of the Middle and Upper School. Curriculum throughout the school is integrated and connected vertically. The mastery of core objectives in reading, writing, and mathematics allows in-depth exploration, analysis, and experimentation with theory and ideas. Specialists bring expertise to science, computers, physical education, library, dance, art, and music. All Lower School classes have a Canvas page to support learners. Students learn how to navigate their Canvas pages and how to complete activities using Canvas. PreK-Class II also uses Seesaw as an online portfolio for their students.

Waterford Lower School teachers teach students how to learn, and understand that not all learning is based in books. Through an enriching environment and tools provided for them, students immerse themselves in learning by becoming the peoples they are studying and by participating in the re-creation of cultural and historical experiences.

The Lower School is contained in its own building, yet students are comfortable within the larger campus. Students enjoy meaningful learning experiences between classes and with the Middle and Upper Schools.

Lower School teachers are devoted advocates for their students, who grow by absorbing new knowledge and methods, working together with enthusiasm, and reveling in the accomplishments of their peers. The faculty model the core values of excellence, integrity, responsibility, curiosity, and caring while teaching what they love and loving those they teach. They pride themselves in helping children discover the joy of learning.

The world of Waterford Lower School is one of endeavor and excitement. It is a world of beginnings.

PreK

PreK - Statement

The Preschool Program is the foundation of a child's education at Waterford. Teaching is both direct and supportive as children are involved in whole-group, small-group, and free-choice activities each school day. Learning in every domain is integrated as children make hands-on examinations and express themselves within the PreK environment. Time for engagement in deep-play is paramount as is providing opportunities for children to explore their interests.

Direct-instruction objectives are research-based and informed by knowledge of developmental milestones. The nurturing environment of the Waterford PreK Program promotes healthy emotional, social, cognitive, and physical growth and development. As children contribute to a caring class community, they are able to joyfully engage as active, curious learners who are comfortable taking risks that lead to new abilities and greater understanding. Minds are engaged through first-hand observation of objects, observing processes, and considering higher level thinking and problem solving. Children are invited to think about their curiosity and ask questions as they choose centers to investigate, hypothesize, and revisit activities they have enjoyed previously. Children make connections as they observe phenomena, look for patterns, and reason about why things happen. New understandings emerge as children recognize feelings of confidence and celebrate "I can do it!" accomplishments. Emerging skills in many domains of learning are evident as children share ideas, draw and write, paint and construction as well as in movement, music, and creative dramatics. The PreK/Kindergarten outdoor classroom extends the full range of whole-child development. Creative self-initiated play with natural elements promotes a strong connection with the earth and provides opportunities for collaborative relationships and physical well-being. All of these experiences help each child develop dispositions to be life-long learners.

PreK-3

PreK-3 - Literacy

Reading, writing, listening, and speaking is central to everything we do each day. Children’s oral language development is strengthened as we build relationships of trust and engage in conversations about the world around us. Language learning opportunities are both spontaneous and planned. The schedule of the day provides a developmentally appropriate balance of choice time, small group directed learning, and whole group activities. Throughout the year children develop dispositions to become readers, writers, careful listeners, and confident communicators within our caring class community. Environmental print including Letter Puppets, children’s name tags, “Question of the Day”, and labeling the room with signs and messages keep alphabet awareness observations and literacy discoveries exciting all year long. Along with learning to recognize each other’s names in print, and reading signs around the room like the schedule of the day, children are introduced to the upper-case letters of the alphabet through Nursery Rhymes. Each new letter is introduced with a puppet. Children memorize rhymes, hold a small book, and turn the pages building language fluency and demonstrating awareness of print concepts. Phonemic awareness skills are introduced and practiced during explicit instruction at small-group time. Acting out rhymes and traditional tales brings heightened engagement as children take on the language, feelings, and problems of fun characters. Whole-group circle time songs, chants, and rhymes incorporate movement and dance for big body fun! Opportunities to paint, draw, and write are encouraged during direct instruction as well as during choice-time at centers. Exploring thematic topics strengthens skills as children listen attentively, share their ideas, learn how symbols are used as representations to communicate ideas, and strive to make sense of meaning and print in their environment. Opportunities for writing labels, making signs, observational drawing, and dictating stories about their adventures in the outdoor classroom are encouraged. Rich vocabulary grows as children make observations and discoveries both inside and outside. These experiences strengthen their understanding of the power of print and develop a love of language and literacy as a way to communicate thoughts and ideas with each other. Sharing books together is a deeply nurturing activity. At school, students choose books and ask to be read to individually, in small groups, and as a whole class throughout the day both inside and outside. Every child is encouraged to bring home a classroom library book in their book bag to read and enjoy with the family every day.

PreK-3 - History/Science

The primary goal in PreK-3 is developing a sense of wonder about the world in which we live. As science and social awareness topics of interest are introduced, passions for investigation emerge. Teachers gather objects and plan experiences to extend engagement and support children’s hands-on investigations. Rich discussions of observation and inquiry are supported by quality children’s literature. Life-science topics include observing seasonal change, weather, plants, animals, and insects. Building with blocks and experimenting with tools and simple machines allow children to discover physical science concepts. As students investigate properties of plants, earth, and critters in the outdoor classroom, they enjoy hands-on exploration and observation with many opportunities to design their own experiments with water flow, properties of sand, rocks, soil, nuts, and shells, and inclines and ramps. History topics include building friendships, community helpers, and exploring cultures throughout the world. Curiosity about how things work is paramount.

PreK-3 - Math

Hands-on experiences with manipulatives help PreK-3 children identify attributes, sort, match, and label groups for counting, graphing, and patterning. Numeracy concepts are presented and practiced during small group, whole group, and child-directed center time. Acting out favorite stories such as the "Three Billy Goats Gruff" makes math language fun and relevant. Using math concepts during block building is especially rewarding. Children compare size, height, and length as well as symmetry, angles, and geometric shapes. Using timers, money, and measuring tools of daily life help children recognize the many ways math is used in problem solving and critical thinking. Counting throughout the day helps children visualize what numbers represent. Rote counting as well as one-to-one correspondence counting show each child's numeral awareness. Comparing sizes and naming attributes of a variety of collections throughout the year builds observational skills within each topic of inquiry.

PreK-3 - Visual Arts

PreK-3 students enjoy making artwork that expresses their unique ideas and creativity. Exploring the properties of a variety of materials and tools inspires these young artists to invent, experiment, and manipulate their supplies according to their own creative directions in both two and three dimensions. Drawing, painting, sculpting, printmaking, and constructing "beautiful junk" creations are some of the projects children eagerly pursue. Children are encouraged to identify elements of art both in their own works and in the works of famous artists. Opportunities to create art are available throughout the day.

PreK-3 - Music

Musical growth is experienced by PreK-3 children as they sing and move. Experiences promote the singing voice and a sense of steady beat. A repeating core of songs and rhymes help facilitate their vocal development. Musical comparatives such as same/different, speech/song, high/low, fast/slow, short/long, and soft/loud are explored. Activities include play, stories, acting, dramatization, and music listening, where the children naturally take part, imitate, and improvise within a safe environment for singing and vocal expression. Children enjoy exploring sounds with musical and rhythm instruments every day in the music & movement area of the outdoor classroom.

PreK-3 - Movement

PreK-3 students enjoy moving with expression and imagination in a shared space. They explore simple locomotor steps at the signal of a drum such as skip, slide, walk, gallop, hop, and jump. They practice self-regulation as they move, stop, and freeze at a signal, and participate in group games with rules. Red Light/Green Light, Old Grey Cat, Hokey Pokey, and Going on a Bear Hunt are favorites. They feel and experience a marching beat, create and hold simple shapes, and use imagination in pretending scenes such as forest, zoo, and toybox. Students are invited to stretch and relax, becoming aware of their heartbeats and breathing. Yoga poses of animals and elements in nature develop focus, balance, and flexibility. In the outdoor classroom, students test and hone physical skills as they walk across a log, climb on rocks, march in musical parades, and carry containers of water. Participating as an audience at school dance recitals adds wonder and appreciation for the joy of dance and movement.

PreK-3 - Social/Emotional

As our PreK-3 children express feelings and talk about the day to day emotional ups and downs, they are laying a foundation for life-long emotional intelligence. Early experiences identifying feelings helps children develop habits of mind. Opportunities for developing social awareness skills arise in our everyday experiences in the classroom. Children come to school with a variety of emotions and become aware of how to talk about their own feelings, and notice the feelings of others. Relationships of trust develop with teachers and peers as we identify problems and find solutions. Children show initiative as they choose activities every day. Some play on their own. Others yearn for companionship. Acknowledging similarities and differences in each child's unique personality is at the core of building a caring class community. There are many opportunities for identifying and talking about feelings. We teach phrases like, "Can I have a turn when you are finished?" as one way children can show that they are becoming aware of the feelings of others. Naming feelings is a skill building emotional intelligence. Approximately 75% of children's books for this age group show characters experiencing a variety of feelings. As children identify the feelings in those characters, they are growing in their understanding of emotions. Executive-functioning skills, including self-regulation, sustained attention, and cognitive flexibility, are explicitly taught and practiced through games and opportunities to do special jobs and use tools with care. Children develop relationships of mutual trust and respect with adults and peers as they build friendships learning that "sharing is caring." Respect for self, others, nature, and property is expected. In the Outdoor Classroom, children increase awareness and confidence with self-directed inquiry in the natural world.

PreK-4

PreK-4 - Literacy

The goal of PreK-4 literacy is to help children see themselves as readers, writers, listeners, and speakers. Careful listening and taking turns to talk is the beginning. The balanced literacy program provides experiences for children to listen to interesting language, learn new vocabulary and print in context of thematic topics, and receive direct instruction of reading and writing in small groups. Quality children's literature, books, rhymes, chants, environmental print, and focused attention on phonological and phonemic awareness skills are implemented within the daily routines. PreK-4 children are introduced to capital and lowercase letters and sounds of the alphabet. Additional alphabet and phonological skills are explicitly taught based on student readiness. As part of the PreK/Kindergarten outdoor classroom, children make choices among labeled areas of interest and verbalize plans for where they'd like to play. Opportunities for writing labels, making signs, observational drawing, and dictating stories about their adventures in the outdoor classroom are woven throughout the day. These experiences strengthen their understanding and love of language.

PreK-4 - History/Science

The PreK-4 child's environment is the main focus of study, expanding upon what is already known about themselves, family, school, and the community at large as they learn about community helpers and traditions of children throughout the world. Children's minds are engaged through close observation of things they can see, touch, hear, smell, and taste. Science includes a study of seasons, plants, insects, spiders, animals, oceans, and space. Children make predictions and hypotheses about what is observed, then generate ideas for problem solving or evaluate results of their study. Children learn to think about their thinking, construct new knowledge, and apply their emerging skills. They participate in discussions and investigations, conduct surveys, and ask questions to gather information. As students investigate properties of plants, earth, and critters in the outdoor classroom, they enjoy hands-on exploration and observation with many opportunities to design their own experiments with water flow, properties of sand, rocks, soil, nuts, shells, and inclines and ramps.

PreK-4 - Math

Hands-on experiences with manipulatives help PreK-4 children identify attributes, sort, match, and label groups for counting, graphing, and patterning. Numeracy concepts and writing numerals are practiced during small group, whole group, and child-directed center time. Children apply math concepts to everyday life. Estimating quantities, adding and subtracting, measuring, using position words, and exploring symmetrical design are activities that engage children's minds as mathematical thinkers.

PreK-4 - Visual Arts

PreK-4 students enjoy making artwork that expresses their unique ideas and creativity. Exploring the properties of a variety of materials and tools inspires these young artists to invent, experiment, and manipulate their supplies according to their own creative directions in both two and three dimensions. Drawing, painting, sculpting, printmaking, and constructing recycled art creations are some of the projects children eagerly pursue. Children are encouraged to identify elements of art both in their own works and in the works of famous artists.

PreK-4 - Music

Using appropriate activities for the young child, PreK-4 music focuses on music listening and aural perception, the singing voice, and steady beat. Children learn a core of rhymes, folk songs, and games that cultivate melodic and rhythmic memory and complement the seasons and homeroom themes. They experience musical comparatives and explore, imitate, and express themselves with voices, instruments, and movement. They play and improvise in the piano lab. Their natural musical spontaneity is supported. Habits of willing, uninhibited singing and enjoyable participation are nurtured.

PreK-4 - Movement

PreK-4 students learn to move with expression and imagination in a shared space. They learn simple locomotor steps such as skip, slide, gallop, hop, and jump. They practice self regulation as they move, stop, and freeze at a signal and participate in group games. They feel and experience a marching beat and create and hold simple shapes. Students become aware of their breathing while stretching and doing yoga. In the outdoor classroom, students test and hone physical skills as they walk across a log, climb on rocks, and carry containers of water. Participating as an audience at school dance recitals adds wonder and appreciation for the joy of dance and movement.

PreK-4 - Social/Emotional

PreK-4 children are curious about the world and interested in discovering their place in it. A positive attitude toward learning, self confidence, self control, and a sense of security and belonging are all important elements of a young child's healthy development. Executive function skills, including self regulation, sustained attention, and cognitive flexibility, are explicitly taught and practiced throughout the preschool day. As part of a caring class community, children develop relationships of mutual trust and respect with adults and peers. They experience feelings of independence and leadership as well as interdependence and cooperation. Personal initiative is encouraged in problem solving and risk taking. Respect for self, others, nature and property is expected. As students persist when working with materials with purpose and initiative in the outdoor classroom, they increase awareness and confidence with self-directed inquiry.

Kindergarten

Kindergarten - Statement

Students experience a curriculum during the Kindergarten year which includes reading, writing, mathematics, history, science, art, dance, PE, computers, and music. A rich and lively learning climate is established so that the joy of learning can be emphasized. Care is taken to provide materials for the children so that they are all challenged, actively involved in learning, and confident about themselves and their abilities. All of these experiences help each child develop the disposition to be a life-long learner.

Kindergarten - Literacy

The Kindergarten Literacy program is designed to help children realize that they are readers and writers. The focus is to instill a love for fine literature. Students are involved in reading instruction which uses leveled readers with an emphasis on phonics and phonemic awareness. Beginning with familiar nursery rhymes, stories, poems, and songs, the children are immersed in a print-rich environment. They participate in independent reading and writing activities, lively unison readings, and creative writing. Small and whole group instruction includes phonics, decoding skills, and penmanship. Children are exposed to the work of prominent authors of children's literature. They read a variety of books by each author.

D'Nealian style script is used for handwriting instruction, focusing on consistent size, form, slant, and spacing. The students participate in daily journal writing. As their writing skills develop, they write complete sentences.

Kindergarten - History

Children learn to value the unique differences in each other by studying their surroundings of home, neighborhood, school, and community before broadening the scope to include other people, places, and events. Special people and events in history as well as holidays are explored.

Kindergarten - Math

The Kindergarten mathematics program relies on teaching, discussion, experimentation and application to teach fundamental mathematical concepts including counting, numeration, operations, geometry, measurement, time, money, graphing, and problem solving. Common life applications are embedded as children investigate math concepts using a variety of manipulatives and hands-on experiences.

Kindergarten - Science

Kindergarten science encourages and fosters a sense of wonder and curiosity about the world. Students learn about topics in earth and space science, physical science, and life science. Engineering skills are developed as students problem solve within these domains of science. Earth and space units include observing, recording, and comparing weather over time, seasonal weather patterns and changes, observations of the day and night cycle, the effects of the sun's light on Earth, as well as an exploration of a variety of Earth's materials. Physical science focuses on exploring how non-living things move, how they are classified, and what happens when they are taken apart and put back together. Life science

units include a study of the five senses, personal hygiene, comparing living vs. non-living things, and investigating a variety of plants and animals.

Kindergarten - Visual Arts

During Kindergarten, children continue to experiment and begin to formulate ideas in which they are able to define their world through different art media. The philosophies during this year are similar to that of PreK-4; however, greater emphasis on skills occurs during the latter part of the year. Creativity is the key. Kindergarten students learn the basics of color, line and shape and how those elements apply to art. Kindergarten students will focus on the creative element of perspective in art.

Kindergarten - Music

Waterford children develop a love for music in Kindergarten. Students are encouraged to use steady beat and their singing voices each class, as they are critical components to understanding basic concepts in music. Students sing foundation songs for later learning of rhythmic and melodic concepts. Activities include movement, instruments, and listening to classical music. Students begin to relate rhythm and melody to graphic notation and symbols. They experience steady beat, distinguish beat from rhythm, and use “ta” and “ti-ti” to voice quarter notes and eighth notes. Lastly, they are introduced to basic piano skills through improvisation and methods. Each student acquires a theory workbook to supplement their learning.

Kindergarten - Computers

Students work with a variety of software that reinforces and enhances the reading, writing, math, and science concepts they are taught in the classroom.

Kindergarten - PE

Students demonstrate the mature form of certain locomotor skills (skipping, hopping, galloping) and manipulative skills (throwing, kicking, dribbling). Health-enhancing activities are introduced. These activities focus on the following health components: cardiovascular endurance, muscular strength, muscular endurance, and flexibility. Teamwork, self control, responsibility, and problem-solving skills are taught. Students work to develop their skills in areas such as space awareness, transferring weight, chasing and fleeing, throwing and catching, kicking (soccer), dribbling (basketball), and striking with rackets, sticks (floor hockey), and bats.

Kindergarten - Dance

Kindergarten students work to fill their “dance toolbox” with games and improvisations built around themes of body, energy, space and time. They make shapes alone and with partners using levels, focus, prepositional words, and directions. They understand energy qualities such as sharp and sustained, collapse and explode. They demonstrate the partner skills of copying, leading, following, and mirroring. They dance in response to books, poems, music, and with a variety of props. They explore simple and complex locomotor skills and social dances. Kindergarten students are given explicit instruction in executive function skills, audience etiquette and mindfulness.

Kindergarten - Theater

The curriculum of our kindergarten theater program consists of dramatizing children's storybooks with voice, actions, puppets, props, and costumes. We enjoy a musical theater unit wherein we begin with familiar action songs and nursery rhymes and build from there. We engage in dramatic play units and finish the year with a performance. We spend our class time creating a joyful creative environment as we normalize dramatic play.

Class I

Class I - Statement

Mastery of knowledge and the development and use of skills provide the foundation in Class I. In small and large groups, the students continue their progress in reading, mathematics, and writing. They enjoy the specialist classes of art, science, physical education, library, music, dance, and computers. Students learn to problem solve, make decisions, and take responsibility. Mindfulness and social emotional learning are at the core of all we do in Class I.

Class I - Literacy

Through an abundance of selected literature, children develop greater fluency and comprehension. They are engaged in silent reading, partner reading, group reading, reading along with recordings, comprehension activities, and vocabulary building. Students master the skills of phonics and phonemic awareness. Both reading and phonics instruction employ hands-on, active learning activities. Teachers and reading assistants collaborate to instruct students in small groups.

To accompany and complement this program, the children are involved in daily writing. Spelling words are taken from the phonics program. Handwriting is based on D'Nealian style script. Students learn lower and upper case manuscript. Emphasis is on correct letter formation, word and letter spacing, alignment, and neatness.

Class I - History

Students in Class I study current events and build cultural competencies.

Class I - Math

Class I math curriculum is designed around the core objectives of place value to 100, addition and subtraction facts, addition and subtraction within 100, writing and solving number sentences and word problems, and patterns. Students also work with time, money, and geometry. Students are given a wide variety of hands-on experiences and exercises in practical computation. Students work on critical thinking through problem solving, reasoning, and generalization. Simulation activities coincide with specific math units to connect application of knowledge to real life events. Cooperative learning and varied small group interactive activities support the concepts presented. Mathematical ideas are related to other areas of the curriculum so that students acquire broader notions about the interconnectedness to other fields.

Class I - Science

Class I science encourages and fosters a sense of wonder and curiosity about the world. Students learn about topics in earth and space science, physical science, and life science. Engineering skills are developed as students problem solve within these domains of science. Earth and space units include observing, recording, and comparing weather over time, seasonal weather patterns and changes, observations of the sun, moon, and shadows, as well as an investigation of the natural world. The planets in our solar system will also be introduced. Physical science focuses on changes in the movement of non-living things, classifying objects by their properties, states of matter, and light and sound. Life science units include personal hygiene and studying the life cycles of a variety of animals.

Class I - Visual Art

Class I begins the foundation of a vertical art curriculum which moves through Class V and on to Middle and Upper Schools. Components of this course include expanding our understanding of color, line and shape. Class I students will also be introduced to project planning and the concepts of symmetry and asymmetry. Class I students are encouraged to express their creativity through drawing, painting, and three-dimensional art. Students in Class I are introduced to design elements and principles in an organized manner which emphasizes their personal creativity.

Class I - Music

Class I centers on the transfer from sound to symbol of basic rhythm, meter, solfege, and staff notation. Students reinforce these concepts through traditional folk song and dance, as well as engaging activities that not only contribute to learning, but also generate a positive attitude toward music. They learn to read musical symbols including the tie, half note, whole note, basic rhythmic patterns, 2-beat meter, and AB form. Students also participate in a choral concert each Winter and Spring. Piano playing skills are developed, including reading absolute pitches on the treble staff. Students also listen to works by important classical composers and become familiar with instruments of the orchestra. Lastly, students continue their journey from Kindergarten learning basic piano skills through improvisation and methods in the piano lab. Each student has a theory workbook to supplement their learning.

Class I - Computers

Students are introduced to coding in Class I and continue to study responsible digital citizenship. This use of technology opens avenues for problem solving and new ways to discover solutions. Students master a variety of software that reinforces and enhances the reading, writing, math, and science they are taught in the classroom.

Class I - PE

Students demonstrate the mature form of certain locomotor skills (skipping, hopping, galloping) and manipulative skills (throwing, kicking, dribbling). Health-enhancing activities are introduced. These activities focus on the following health components: cardiovascular endurance, muscular strength, muscular endurance, and flexibility. Teamwork, self control, responsibility, and problem-solving skills are taught. Students work to develop their skills in areas such as space awareness, transferring weight, chasing and fleeing, throwing and catching, kicking (soccer), dribbling (basketball), and striking with rackets, sticks (floor hockey), and bats.

Class I - Dance

Class I students understand their body as an instrument, and dance as a form of communication. They learn bone names through experiential anatomy. Through games, choreography and improvisations they explore themes of body, energy, space, time, and relationship. They make shapes alone and with partners using levels, focus, prepositional words, and directions. They understand energy qualities such as sharp and sustained, collapse and explode. Students demonstrate the partner skills of copying, leading, following, and mirroring. They dance in response to books, poems, music, and with a variety of props. Students learn ballet technique and social dances. They share informal solo and duet performances in front of peers. Class I students are given explicit instruction in executive function skills, audience etiquette, and mindfulness.

Class I - Chess

Class I students learn the fundamentals of chess: caring for chess sets, setting up the board and pieces, mapping the squares on the chessboard, learning the names and movements of the pieces, check and checkmate, draws, and special rules. Throughout the year, students will learn how to play full matches with proper chess etiquette, and will participate in cleaning up the chess set with care.

Class II

Class II - Statement

Class II students hone previously learned skills while exploring and mastering new ones. Progress in reading, mathematics, writing, and social studies is solidified. Experiences with specialist teachers in art, music, physical education, dance, library, computers, and science build a solid foundation in the liberal and fine arts. This is done with a focus on shaping the achievement and confidence which accompany them to Lower School. Classroom activities underscore the importance of cooperation and responsibility.

Class II - Literacy

The Waterford reading model teaches children specifically at their instructional reading level. Comprehension and fluency skills are taught and reinforced in small reading groups through the use of quality children's literature. Spelling and writing skills are strengthened in small group phonics instruction. Both reading and phonics instruction employ hands-on, active learning activities. Teachers and reading assistants collaborate to instruct students in small groups. A weekly spelling list consists of high-frequency sight words and other words used frequently in Class II curriculum.

Students write extensively, using D'Nealian style script. Students develop sentence-writing skills with letters, poems, narrative, and expository pieces. Students participate in the writing process from prewriting to final draft. The students' writing improves as self-editing and teacher editing are implemented. Grammar topics include nouns, verbs, and adjectives.

Class II - Social Studies

The Social Studies focus in Class II is world geography, beginning with mapping skills and introducing the students to the continents, oceans, and major land and water forms of the world. The remainder of the year is spent in concentrated studies of each continent, focusing on its landforms, environments, people, customs, animals, and some aspects of history. Mapping skills and the use of an atlas are reinforced throughout each continent study.

Class II - Math

Class II is the time to solidify a strong foundation of basic addition and subtraction facts. The math curriculum is based on the core objectives of place value to 1,000, addition and subtraction with regrouping, multiplication and division concepts and memorization of the multiplication tables of 0, 1, 2, 5, and 10, and geometry. Students also work with measurement, time, money, and patterning. Problem-solving strategies are taught and practiced regularly. Students work on critical thinking through problem solving, reasoning, and generalization. Enrichment activities coincide with specific math units to connect application of knowledge to real life. Cooperative learning and varied small group interactive activities support the concepts presented. Mathematical ideas are related to other areas of the curriculum so that students acquire broader notions about the interconnectedness to other fields.

Class II - Science

Class II science encourages and fosters a sense of wonder and curiosity about the world. Students learn about topics in earth and space science, physical science, and life science. Engineering skills are developed as students problem solve

within these domains of science. Earth and space units include observing, recording, and measuring weather, seasonal weather patterns and changes, the night sky, and the characteristics of different rocks. Physical science focuses on gravity, friction, and how different materials respond to change. Life science units include personal hygiene, identifying the basic needs of living things, and habitats of different animals.

Class II - Visual Art

Students in Class II art continue their foundation studies in the elements and principles of design. Line, color, shape, texture, and value are elements that are applied to student artwork. Students learn vocabulary specific to visual art. They expand their drawing skills with an emphasis on observation and detail. Many different types of materials are explored. Individual creativity is emphasized. Class II students expand their project planning skills through multiple pieces.

Class II - Music

Class II music continues to transfer sound-to-symbol familiarity with pillar pentatonic intervals, an increase of the student's singing range and skills with consistent pitch matching, elementary piano keyboard fluency, and the musical independence of each learner. Students reinforce these concepts through traditional folk song and dance, as well as engaging activities that not only contribute to learning, but also generate a positive attitude toward music. They learn to read musical symbols including half note, whole note, sixteenth notes, 8 beat rhythmic patterns, 4-beat meter, and 1st and 2nd endings. They perform, improvise, and compose. Students also participate in a choral concert each Winter and Spring. Students enrich their music literacy through group piano classes. They read absolute pitch in treble and bass staves, learn keyboard/staff relationships, and develop proper technique. Lastly, students continue their journey from Class I, learning basic piano skills through improvisation and methods in the piano lab. Each student has a theory workbook to supplement their learning.

Class II - Computers

Class II students learn basic coding skills. This use of technology opens avenues for problem solving and new ways to discover solutions. Students master a variety of software that reinforces and enhances the reading, writing, math, and science concepts they are taught in the classroom.

Class II - PE

Class II students continue to work on developing their locomotor skills (skipping, hopping, galloping) and manipulative skills (throwing, kicking, dribbling). Opportunities for both cooperative and competitive game play situations are increased. Students learn the basic movements, skills, and rules pertaining to each unit of study. Sportsmanship, cooperation, and problem-solving skills are taught and practiced. Students work to develop their skills in areas such as space awareness, transferring weight, chasing and fleeing, throwing and catching, kicking (soccer), dribbling (basketball), and striking with rackets, sticks (floor hockey), and bats.

Class II - Dance

At the end of the school year, the Class II students are able to do all eight locomotor steps plus variations and combinations of these steps. They identify meters (duple, triple) and continue with note value. They learn the muscles and bones of the body that are important to dance and the alignment of the body. They learn the difference between

positive and negative space as it relates to creation, shape, and choreographic choices. They experiment with improvisation and modern dance technique while being aware of verbs, adverbs, and adjectives. Poetry deepens their understanding of the quality of their movement. They perform in front of peers solo, with a partner, and in small groups.

Class II - Chess

Class II students learn the fundamentals of chess: caring for chess sets, setting up the board and pieces, mapping the squares on the chessboard, learning the names and movements of the pieces, check and checkmate, draws, and special rules. Throughout the year, students will learn how to play full matches with proper chess etiquette, and will participate in cleaning up the chess set with care.



Class III

Class III - Statement

Students in Class III solidify their basic skills and are challenged to apply and extend those skills. Emphasis in all areas of the Class III curriculum is on active learning experiences which involve reading, writing, discussing, critical thinking and problem solving. The emphasis on active learning makes learning more meaningful and yields deeper understanding. Students are led toward independent learning in this significant transition from the primary years to the later years of the Lower School.

Class III - English

Literacy instruction provides specific skills and strategies as students learn to read, write, and engage with literature in meaningful ways. Students learn to read with deep understanding while they learn to write with confidence and clarity. Students read, discuss, and reflect on a variety of literature. Specific reading skills related to the literature are taught regularly. Through immersion in reading experiences, students build a rich vocabulary. As part of the word study curriculum, students explore why words are spelled the way they are, not just how to spell words, in order to successfully apply skills to unfamiliar reading and writing contexts. Vocabulary is studied through literature, as well as through the writing process. The Class III literature program emphasizes comprehension development and literary thinking through a variety of activities focused on character, plot, theme, and connection. Students are given time to read book choices, fostering a love for reading as they are exposed to many genres and authors.

Grammar concepts include capitalization, punctuation, parts of speech, and word usage. Lessons are related to work in reading and writing. Students learn D'Nealian cursive and quality penmanship is emphasized. Writing includes exercises related to literature books and our history curriculum. Students also explore a variety of writing formats such as journal writing, fictional stories, poetry, myths, and a biographical research project. Throughout the year, students work on the processes of revising and editing.

Class III - History

Class III explores the elements of a civilization including its culture. Using the overarching concept of culture, and its relationship with identity, students are enabled to better understand history through the lens of other perspectives. Emphasis is on the relationship between the society, its environment, and their interdependence. History is brought to life through hands-on experiences. Students understand how the discoveries and contributions made by these ancient civilizations (Egypt, Greece, Indus Valley, Ancient America, China, and Rome) affect our lives today.

Class III - Math

Class III math is based on the core objectives of place value up to 10,000, addition and subtraction of larger numbers, memorization of multiplication and division facts (factors 0-10), multiplying and dividing numbers, and working with fractions. Students also work with measurement, time, and money. Students work on critical thinking through problem solving, reasoning, and generalization. Cooperative learning and varied small group interactive activities support the concepts presented.

Class III - Science

In Class III, students investigate many areas of science with hands-on learning while using the scientific method. They begin the year with a unit on the water cycle. During our astronomy unit, they learn about Earth's Moon and Earth-Moon relationships. They also learn about astronauts and some important space missions. Students become geologists when we study the Earth and paleontology. We focus on weathering, erosion, geologic time, dinosaurs, and trilobites. When we move to our energy unit, students use many tools to study forces, magnetism, and electricity. All students learn to identify and build simple and parallel circuits. Students round out the year with biology. We spend time learning about birds.

Class III - Visual Art

Class III will start with a review of the elements of art. Our first project emphasizes the use of cross contour lines to differentiate the three-dimensional quality of forms versus the flatness of shapes. We will combine ink work using cross-contour lines with a wet-in-wet watercolor wash using analogous colors. We learn to draw what we see rather than rely on past images stored in the brain. We use this new way of seeing to draw portraits. All subsequent projects focus on establishing a strong foundation of drawing and painting skills with support of relevant art history and aesthetics. We will also explore three dimensional art with clay.

Class III - Music

Class III students add to the concepts learned from Class II. We build our class activities around the idea that all students should be able to see themselves in some way represented in the music as they “make real music like real musicians” with a sense of joy and belonging. They experience rhythmic and melodic concepts by listening, reading, writing, singing, moving, and playing instruments including electric pianos in the piano lab. They explore rhythms such as combinations of eighth, quarter, half, and whole notes and rests. Melodically, they continue to study both solfege and standard notation, and they sing and play using single-line melodies, rounds, and simple harmonies. Students learn and use concepts such as meter, repeat, melody, ostinato, and improvisation.

Class III students prepare two choral concerts each school year. Students participate in extensive preparation for these performances including continual experiences with healthy and confident singing skills including matching pitch, proper breath support, basic music reading, and musical diction and phrasing. Students gain the experience of ensemble and concert etiquette, and also learn about the philosophy behind programming a concert and presenting an excellent performance as a cohesive group.

Class III - Computers

Class III students use Code.org to build on the coding skills they learned in Class II deepening their understanding of sequencing, algorithms, programs, debugging, events, loops, and more. Touch typing is taught and practiced in the classroom using Chromebooks. Google Suite applications such as Google Docs and Google slides are used for writing poems, stories, and presenting research information.

Class III - PE

Class III students receive instruction to help them obtain a better appreciation for physical fitness, sports, and working together as a team. During the year, different team and individual sports are explored. With this exploration, they not only concentrate on the basic movements, skills, and rules which pertain to each unit of study, but also strongly emphasize sportsmanship, cooperation, and problem-solving skills. Students take part in several units of study: soccer, football skills, volleyball, basketball, floor hockey, team handball, baseball and softball skills, paddle and racket sports, orienteering, lacrosse, and many other non-traditional sports, games, and activities.

Class III - Dance

Class III dance students explore the elements of time, space shape and energy in both art making and modern dance technique. Poetry and contextual materials are used to deepen their own creative compositions. Anatomy is introduced as students begin to understand the body as an instrument. Posture, focus and respect are ongoing foundational values of dance class.

Class III - Chess

Class III students learn the fundamentals of chess: caring for chess sets, setting up the board and pieces, mapping the squares on the chessboard, learning the names and movements of the pieces, check and checkmate, draws, and special rules. Throughout the year, students will learn how to play full matches with proper chess etiquette, and will participate in cleaning up the chess set with care. They also will learn more complex ideas such as special pawns, endgame technique, and opening principles.

Class IV

Class IV - Statement

Learning activities center on mastery of core skills as well as application experiences. Abstract thinking skills are broadened in Class IV. An integrated approach to learning allows the linking of materials and exercises in various subjects. Group discussions highlight cooperation, honesty, and responsibility, helping students understand their place in the Waterford community and other communities at large.

Class IV - English

Literature provides the foundation for the English curriculum. The reading program provides the children with quality literature selections and rewarding content from selected poetry, anthologies, and historical fiction. The home reading program provides additional titles for individual reading and responding through writing and teacher conferences.

Students expand their English vocabulary by learning Latin word roots as well as the prefixes and suffixes from which those roots come into the English language. The skills of vocabulary, comprehension, oral reading, usage, grammar, and writing mechanics grow out of, and are embedded in, the literature and the children's writing. Spelling lists combine syllable types as well as other spelling patterns.

Class IV students are involved in a variety of oral and written experiences. They conduct research and write reports, essays, summaries, and poetry. Throughout these experiences, the focus is on analyzing content, attending to models, editing, rewriting, and publishing. Oral activities include discussions, identifying and defending points of view, and dramatization. Grammar instruction focuses on analyzing sentences by parts of speech and their functions.

Class IV - History

During Fall Term, Class IV studies Utah history. Students learn about Utah geography, prehistoric cultures in Utah, the different Utah Indian tribes, Utah's early explorers and settlers, and westward movement. Winter and Spring Terms are spent studying the history of Western Civilization, focusing on the Middle Ages. This course of study includes Europe after the collapse of the Roman Empire: Vikings, feudalism, manorialism, castles, knighthood, monasteries, and Crusades. Students study world geography with an emphasis on Europe. Students participate in simulations to experience what it was like to live in a medieval world.

Class IV - Math

Class IV math is designed around the core objectives of place value through trillions, multiplication and division of larger numbers, addition and subtraction of decimals to hundredths, fractions, and geometry. Students also work with measurement, data and graphs, and probability. This program emphasizes thinking and problem solving as well as computation. Math facts are memorized and become computational tools. Students work on critical thinking through problem solving, reasoning, and generalization. Activities coincide with specific math units to connect application of knowledge to real life events. Cooperative learning and varied small group interactive activities support the concepts presented. Mathematical ideas are related to other areas of the curriculum so that students acquire broader notions about the interconnectedness to other fields.

Class IV - Science

Class IV students actively study the world around them as they learn about a wide variety of scientific topics. The scientific method is always used during experiment and discovery time. Students begin the year with a unit on plants, including classification of local species. During the weather unit, students collect data, study clouds, and learn about forecasting. Matter is always an exciting unit in Class IV! Students learn about physical and chemical changes to matter as they learn about mixtures, elements, and phases of matter. During the astronomy unit, students study the solar system, stars, and black holes. In our geology unit, we dig deep into our study of rocks and minerals.

Class IV - Visual Arts

Students in Class IV begin the year by comparing the work of Pablo Picasso and contemporary artist Kimmy Cantrel. We talk about the influence of past artists on current artists. We also examine our own influences and how they affect our ideas and creativity. We construct multidimensional masks from recycled cardboard and discuss creating art from repurposed materials. We continue the theme of sustainability by creating altered alebrijes incorporating discarded toys. We strengthen watercolor techniques and practice balanced composition by painting a night landscape. We continue to build on a foundation focussed on the elements of art established in Class III.

Class IV - Music

Class IV students add to the concepts learned from Class III. We build our class activities around the idea that all students should be able to see themselves in some way represented in the music as they “make real music like real musicians” with a sense of joy and belonging. They experience rhythmic and melodic concepts by listening, reading, writing, singing, moving, and playing instruments including electric pianos in the piano lab. They explore rhythms such as combinations of eighth, quarter, half, and whole notes and rests. Melodically, they continue to study both solfege and standard notation. Students learn and use concepts such as meter, repeat, melody, ostinato, and improvisation. Class III students prepare two concerts during the year. During that preparation, students focus on singing skills including healthy singing, free and relaxed tone production, matching pitch, proper breath support, basic music reading, and phrasing. Students gain the experience of ensemble and concert etiquette.

Class IV students add to the concepts learned from Class III. They experience rhythmic and melodic concepts by listening, reading, writing, singing, moving, and playing instruments. Students are given the opportunity to develop their musical skills while having fun. They explore rhythms using dotted half and quarter notes, syncopation, and single eighth notes. Melodically, they learn solfege, including high doh and fa. Concepts such as major and minor tonality, meter 3/4, up beat, and improvisation are studied. Part singing is also introduced. Experience continues on recorder, glockenspiel, xylophone, metallophone, and various un-pitched percussion instruments to facilitate ensemble and further explore new music concepts. Class IV students prepare two concerts during the year. During that preparation, singing skills are developed such as free and relaxed tone production, breath support, and intonation. Students gain the experience of ensemble and concert etiquette.

Students have their first experience learning a string instrument in Class IV. They experience the discipline and artistry of a difficult orchestral instrument through six weeks of violin study. Students learn and incorporate the many facets of

beginning violin technique (including hand position, bow hold, tone production, and pitch accuracy) into their individual and ensemble playing. Through this experience with the violin, viola, or cello, students experience meaningful musical expression and connect with music and a historic instrument art form in a profound way.

Class IV - Computers

Class IV students continue to build their coding skills in three units throughout the year using Code.org, Scratch, and LittleBits. Code.org continues to enhance the basic knowledge of coding terms and application of events, loops, conditionals, debugging, and more. Those skills learned in Code.org are applied even more in Scratch, where students build animations, games, or designs. LittleBits brings knowledge learned in Class III Science about simple circuits and integrates it with the coding skills they have gained to challenge students to build simple circuits and then code it to amazing things! Touch typing is taught and practiced in the classroom using Chromebooks. Google Suite applications such as Google Docs, Google slides, and Google Sites are used for writing stories, reports, and presenting research information.

Class IV - PE

Class IV students receive instruction to help them obtain a better appreciation for physical fitness, sports, and working together as a team. During the year, different team and individual sports are explored. With this exploration, students not only concentrate on the basic movements, skills, and rules which pertain to each unit of study, but also strongly emphasize sportsmanship and building better personal fitness habits. Students take part in several units: soccer, football skills, volleyball, basketball, floor hockey, team handball, baseball and softball skills, paddle and racket sports, orienteering, lacrosse, and many other non-traditional sports, games, and activities.

Class IV - Dance

Class IV Dance begins to take locomotor movements and combine them into more advanced patterns in space. Students deepen their understanding of anatomy and come to know which bones and muscles are important for dance technique and performance. Students complete each term performing their own compositions in class, which combine creativity, originality, and embodying. Improvisation is used as a tool for discovery.

Class IV - Chess

Class I students learn the fundamentals of chess: caring for chess sets, setting up the board and pieces, mapping the squares on the chessboard, learning the names and movements of the pieces, check and checkmate, draws, and special rules. Throughout the year, students will learn how to play full matches with proper chess etiquette, and will participate in cleaning up the chess set with care. They also will learn more complex ideas such as special pawns, endgame technique, opening principles, and chess history.

Class IV - Theater

The curriculum in our grade IV theater program consists of gaining a variety of new theatrical skills and learning new concepts. The class begins with a formal teaching moment followed by the teacher demonstrating and then inviting the students to join in workshopping the new concept. Care is taken to draw parallels between the skills they are learning in class and the skills they will need in life. Lessons that are presented include: Creating a Safe Space; Taking Risks and

Making Mistakes are Good Things!; Cultivating a Growth Mindset/Giving Appropriate Feedback; Elements of Drama; Reader's Theater; Workshopping age appropriate plays; Character Analysis; Macbeth Witches (In-class performance opportunity); Body Movement; Diction/Inflection/Intonation; Emotion/Motivation; Monologues/Auditions (In-class performance opportunity); Public Speaking; Pantomime; Improvisation; and Musical Theater.

Class V

Class V - Statement

The academic climate of Class V fosters independence, responsibility, and self-confidence, promoting a smooth transition to Middle School. Each student is encouraged to work cooperatively and independently, to think critically, and to reflect and analyze. Studies are interdisciplinary; for example, the combined study of American history and literature fosters a heightened understanding and appreciation for key people and events. Research and study skills are enhanced by work done on computers. The liberal and fine arts experiences enjoyed by the students from Preschool through Class V result in the ability of Class V students to recognize excellence, to concentrate on purpose, to question and analyze, and to begin to resolve age-old questions for themselves.

Class V - English

Organizational skills are emphasized as students are led into higher-level thinking activities within the curriculum. They are taught to extract important information, both from written materials and from lectures, to help them distinguish between main ideas and supporting ideas.

Class V reading material consists of historical and fictional novels as well as non-fictional works related to history. Many of the selected novels correspond with United States history. The main goal of the program is to create a love and excitement for reading, and to have the child learn that reading is a door into a larger world. Comprehension, higher level thinking, and inferring are components of our reading skill study.

Learning to communicate with ideas that are clear and concise is the main goal of writing in Class V. Writing consists of research, reports, poetry, stories, essays, journal entries, and other expository and narrative writing. Work in vocabulary, grammar, and usage is related to literature. This also serves as a valuable tool to improve listening skills. Grammar instruction focuses on analyzing sentences by parts of speech and their functions.

Class V - History

In Class V, students study United States history beginning with the first inhabitants of the American continent and their lasting influences. Students then journey through the thirteen colonies and discover how the present form of government evolved. Next, students study the causes and effects of the American Revolution and learn about the new republic from the Articles of Confederation through the ratification of the United States Constitution. Famous Americans are brought to life during Winter Term as students research individuals who have made lasting impressions on the country. Study then shifts to the Westward expansion followed by the conflicts and events that led to the Civil War.

Class V - Math

The math curriculum is designed around the core objectives of multiplication and division of decimals and whole numbers, addition, subtraction, and multiplication of fractions and mixed numbers, conversion of percents, decimals, and fractions, and geometry. Students also study factors, multiples and powers, data and graphs. The curriculum is divided into units which include direct instruction and interactive lessons. Much attention is given to mental math, i.e.

using number properties to solve difficult computations mentally. This requires automatic recall of all facts. Students work on critical thinking through problem solving, reasoning, and generalization. Cooperative learning and varied small group interactive activities support the concepts presented.

Class V - Science

Class V students use all of the techniques and tools they've learned in Lower School Science as they delve into an intense year of scientific study. They continue using the scientific method and dig in with experiences that build on what we have learned in previous years. They also learn to take notes during a science lecture - practicing ways to create simple, labeled sketches and using keywords as they jot down new vocabulary and definitions. We begin the year studying the changing Earth, including plate tectonics, mid-ocean ridges, and the forces driving these changes. Students then learn about natural disasters such as earthquakes, volcanoes, hurricanes, and landslides. In the biology unit, we focus on heredity, DNA, and the physiology of the circulatory and respiratory systems. Our astronomy unit on Mars is always a favorite - students take a good look at the red planet, space travel, rovers, and rockets. Our end of year physics unit is always en"light"ening - we wrap up the year with a study of what light is and how it behaves.

Class V - Visual Arts

We introduce figure drawing by learning how to draw a proportional stick figure. We use this skill to portray ourselves as superheroes in a collage. We practice 3-D construction and discuss form, function and architecture by making a clay ogre. Projects will continue to strengthen drawing and painting skills. Emphasis will be placed on self expression and narrative. We learn to enlarge an image using a grid. We use this technique to draw and paint an animal with liquid watercolor. We incorporate the principles of design to create a personal logo based on an idealized view of our future selves. Finally, Class V studies linear perspective and completes drawings in one and two point perspective, studying eye level and vanishing points.

Class V - Music

Class V students add to the concepts learned from Class IV. They experience rhythmic and melodic concepts by listening, reading, writing, singing, moving, and playing instruments. Students are given the opportunity to develop their musical skills while having fun. They explore rhythms using dotted eighth with sixteenth notes. Melodically they learn solfege such as ti and low ti. Concepts such as harmony, intervals, and chords are studied. Part singing is expanded beyond two parts. Class V students prepare two concerts during the year. During that preparation, singing skills are developed such as free and relaxed tone production, breath support, and intonation. Students gain the experience of ensemble and concert etiquette.

Class V students continue their study of introductory strings as well as participate in an exploratory winds program where students experience playing the flute, clarinet, trumpet, and trombone.

Class V - Computers

Class V students continue to build their coding skills in three units throughout the year using Scratch, Micro:bits, and LittleBits. Students build upon the skills learned in Scratch during Class IV to enhance the animations and games they create using variables and functions. LittleBits brings knowledge learned in Class III Science about simple circuits and

integrates it with the coding skills they have gained to challenge students to build simple circuits and then code it to amazing things! Touch typing is taught and practiced in the classroom using Chromebooks. Google Suite applications such as Google Docs, Google Slides, and Google Sites are used for writing stories, reports, and presenting research information.

Class V - PE

Class V students engage in a variety of team and individual sports and participate in many different competitive and cooperative activities. These experiences allow them to concentrate on the basic movements, skills, and rules which pertain to each unit of study, and encourage a focus on sportsmanship, cooperation, and better personal fitness habits. Students take part in several units: soccer, football skills, volleyball, basketball, floor hockey, team handball, ultimate frisbee, baseball and softball skills, paddle and racket sports, orienteering, lacrosse, and many other non- traditional sports, games, and activities.

Class V - Dance

Class V is a blend of Modern Dance, African Dance, and Ballet technique. Students learn more advanced combinations in all three techniques and compare and contrast through contextual research, embodying, and sharing their own creative compositions. Use of anatomical language will be advanced for understanding the alignment of the body and individual parts of the body that make up the whole instrument. The elements of dance are combined to explore the quality of dance forms. Creative writing and discussions about verbs, adverbs, and adjectives help deepen their understanding of time, space, shape, and energy. Noticing deeply, making connections, embodying through art making, and recognizing patterns allow students to work in groups to create dance compositions.

Class V - Theater

The curriculum in our grade V theater program consists of gaining a variety of new theatrical skills and learning new concepts. The class begins with a formal teaching moment followed by the teacher demonstrating and then inviting the students to join in workshopping the new concept. Lessons that are presented include: Creating a Safe Space; Taking Risks and Making Mistakes are Good Things!; Cultivating a Growth Mindset/Giving Appropriate Feedback; Elements of Drama; Reader's Theater; Workshopping the MS Play; Character Analysis; Macbeth Witches (In-class performance opportunity); Body Movement; Diction/Inflection/Intonation; Emotion/Motivation; Monologues/Auditions (In-class performance opportunity); Pantomime; Tableau; Masks; Improvisation; Musical Theater; Workshopping the LS Play; and Workshopping "A Midsummer Night's Dream."

Class V - Chess

Class V will continue to add upon the foundational concepts taught in previous years, namely; endgame technique, opening principles, and middlegame strategies to gain, retain, and convert the advantage into a win. Class V will also have a deepened knowledge of chess history and chess played in modern times. Lastly, Class V will have much more extensive training and preparation for tournament and competitive play.





MIDDLE & UPPER SCHOOL CURRICULUM GUIDE

Program Policies and Procedures

Registering for Courses

Middle School students complete registration each spring for the upcoming academic year. Middle schoolers make decisions about their PE courses and their music courses. Upper School students register for year-long courses each spring for each upcoming academic year. There are subsequent registration periods for term-long courses in the middle of fall term and winter term, during which upper school students will select term-long elective courses.

Add/Drop Period

Our Add/Drop period is the first two weeks of each term. During the Add/Drop period, students may make course changes by meeting with the registrar. After the add/drop period, student schedules can not be changed without support from the Deans.

Study Halls

Students may register for a study hall. Attendance in study hall is marked just as in any other class. Study hall should be used as a time for quiet, productive study.

Course loads

Students need to maintain a full schedule while enrolled at Waterford. This means no more than one study hall per term during their class IX, X, and XI year. All students need to maintain enrollment in a minimum of five academic classes in Classes IX - XI, and a minimum of four academic classes in Class XII. Class XII students may apply for the privilege of having two study halls at the beginning of each term — this requires permission from parents / guardians. Talk to the registrar for more information about this process.

AP Courses

Waterford offers 17 AP courses. In general, students need a recommendation from their current teacher in order to enroll in an AP Course in that discipline in the upcoming year. Students who are enrolled in an AP course are expected to take the corresponding AP Exam in May.

Independent Studies

Students in Class X and up may apply to pursue an independent study. Independent studies cannot be completed for courses that we offer, nor do we offer independent study credit to students who complete a course at another institution. Independent studies are approved when a student is taking advantage of a faculty member's expertise. Independent studies earn P/F grades and earn a single elective credit. Students should plan



independent studies with their supervising faculty member and submit the digital request form before the end of the first week of term. Reach out to the registrar to get the link to the digital form.

Grades

Students earn grades at the end of each term. Our grades are not weighted; all course grades earn the same weight in GPA calculations. PE/Athletics grades are not factored into a student's GPA. Our letter grades correspond to the percentages listed below.

A	4.0	93-100
A-	3.67	90-92
B+	3.33	87-89
B	3.0	83-86
B-	2.67	80-82
C+	2.33	77-79
C	2.00	73-76
C-	1.67	70-72
D	1.0	65-60
F (<i>does not earn credit</i>)	0.0	Below 64

- **Pass / Fail Grades:** A student may earn Pass/Fail grades when they are in crisis or need to take a partial medical leave. This is a decision made by the Academic Dean, MSUS Counselor, and the MSUS Dean of Students.
- **Incomplete ("I"):** A student earns an incomplete when they have not submitted enough work to warrant earning a grade in the class. Students earn "I"s in consultation with the dean and the classroom teacher. Students need to submit any missing work that resulted in an "I" by a predetermined date.
- **Withdraw ("W"):** A student earns a W when they drop a course after the add/drop period. Ws are not factored into a student's GPA, but are reported on their transcript.

Awards & Honors

Honors and High Honors

A student receives Honors for the term if the average of his or her grades in the required courses is at least 3.0 (B). He or she receives High Honors if the average of grades in required courses is at least 3.67 (A-). A student may not receive Honors or High Honors if any grade is a 2.0 (C) or below or if they have earned an Incomplete in any course..

Upper School Waterford Scholar

“Waterford Scholar” is an honor bestowed on those Upper School students who receive Honors in each of the three terms in an academic year. “Waterford Scholar with Distinction” is the category reserved for those who receive High Honors for three consecutive terms.

Plaudits

Plaudits are awarded to students once a term. Plaudits are ways that teachers recognize our core values in action in the classroom, not necessarily just academic achievement. Students who earn plaudits receive a letter from the Head of School.

Seal of Biliteracy

Waterford participates in the State of Utah Seal of Biliteracy program. Seniors are eligible to apply for this honor; they need to present documentation of achievement in several assessments. Students should speak to the World Language Department Chair if they would like more information.

Junior Book Award

The Junior Book award is presented to members of Class XI to recognize excellence in academic achievement. This award is presented annually at the Upper School Closing Awards Assembly.

Department Prizes

Each department recognizes one graduating senior each year at the Upper School Closing Awards Assembly. The seniors are honored for their exceptional achievement in a specific academic, artistic, or athletic discipline.

Cum Laude

Waterford School has recognized the Cum Laude honor as the highest academic achievement a student can earn. A select group of graduating seniors are inducted into the Cum Laude Society in the early spring term of their senior year. Students are selected to be a part of this prestigious group based upon their overall academic performance, commitment to the liberal arts mission of the school, their attendance, and record of academic integrity.

Waterford Award

The Waterford Award is presented each year at the Upper School Closing Awards ceremony. It is given to one or two students who embody Waterford’s mission and core values. Community participation, leadership, and character are considered in determining this award.

Academic Probation

Students are placed on to Academic Probation if any of the following describes their term’s academic performance:

- They have earned two Ds or 1 F
- They have an overall GPA of 2.33 or lower
- They have an academic GPA of 2.0 or lower

Being placed on academic probation triggers a series of additional supports. Students on academic probation must meet regularly with their class dean. They must have a study hall on their schedule. They cannot double block any course. If a student remains on academic probation for more than one term, they may lose their eligibility to participate in extracurriculars. Several terms of academic probation may result in separation from the school.



Academics at Waterford

Dear students and parents,

At Waterford, learning is our reason for being. Our courses and the learning they inspire are the heartbeat of our institution, and each spring I am thrilled to invite students and families to peruse our course offerings and chart their path for the next year and beyond.

It feels like a year of renewal for our community. After years of resilience and grit in enduring the COVID-19 pandemic, I'm cautiously optimistic that the 2022-23 school year will be one where we can return to the more-familiar rhythms and routines of our school's life. Yet, as always, we are also not satisfied with a simple return to former ways — our academic program has been growing and improving in the past year and we are excited to show you some of the innovations that our department chairs and their faculty have been researching and implementing. Especially notable is the work in our science department, which has refined their curricular progression to align with the research-backed Physics First model, and our interdisciplinary elective program — an opportunity for juniors and seniors to take interdisciplinary courses in their elective blocks.

As you and your child review the courses in these pages, I invite you to reach out to the many adults in the community who are poised to help your child plan a thoughtful and supportive pathway through their years at Waterford. Department chairs can give insight about specific courses and the progression of skills within their discipline; our college counselors' perspective is invaluable for students selecting their courses, especially in their Class X and XI years; our registrar can answer questions that are about timing, schedule, and credit needs.

With excitement for the year to come,

Casey O'Malley, Academic Dean

Teaching Contemporary Topics in the Liberal Arts Tradition

At Waterford, we are committed to preparing students for lives of meaning and purpose in the 21st century. The liberal arts tradition recognizes that students need a deep fund of knowledge and a rich set of thinking, problem solving, and writing skills to pursue this lofty aspiration. But the tradition also recognizes that students need practice engaging in respectful and effective dialogue on the full range of topics of interest to our culture and society. This means our classrooms will engage regularly in discussions of topics that can be controversial. The point of exploring controversy is never just to provoke, nor is it to offer dogmatic answers to the challenging questions, but rather the point is to open up those questions to reflective dialogue in the liberal arts tradition. As Socrates teaches us, we learn best when we learn to recognize that we often do not truly know what we think we know on the most complex societal questions. Whether we are exploring elements of personal and collective identity — race, gender, ethnicity, sexuality, religion, nationality, and socioeconomic status — or the many challenges facing local, national, and global communities — immigration, climate change, macroeconomic forces, and international sovereignty — we want to make sure our students can join the dialogue in a respectful, curious, and informed way. These kinds of conversations will happen naturally across the curriculum, in age-appropriate ways, always in the spirit of liberal arts inquiry. They are not, of course, the primary focus of the curriculum, but they do provide essential practice in key thinking, listening, and communication skills. Our greatest hope is that our graduates elevate the tone of national discourse and better us all.

Computer Science

The Computer Science Department provides students with knowledge of basic computer hardware, software applications, on-line resources and programming languages. Students' knowledge will be sufficiently deep to affect the ways in which they collect, organize, manipulate and ultimately understand information.

At the Middle School level, students take one term of Computer Science in both Class VI and Class VII. At the Upper School level, students must complete a minimum of one term of a Computer Science elective. The courses described below are a current "snapshot" of department offerings. These offerings evolve and change with time. Please contact the Computer Science Department Chair with questions about specific elective offerings.

Middle School

Computer VI: Programming with Scratch I	Using the young-person-friendly coding tool Scratch (scratch.mit.edu), this course lays a foundation for the study of computer programming generally. Students learn the basic concepts of variables, conditional branches, loops, and objects. The course also requires students to create projects using the Google suite of apps, including Sheets, and Forms. Learning to understand and solve difficult problems are important facets of this course.
Computer VII: Programming with Scratch and Python	This course is the sequel to "Programming with Scratch I" offered to Class VI students. As in the previous year, the focus is on Scratch, and the intent is to prepare the way for study of more abstract languages. Students are required to apply their growing coding skills to find solutions to problems that are increasingly complex, in both Scratch and Python. Learning to interpret data visuals and discuss algorithms and ethical coding are important facets of this course.

Upper School

Computer: AP Computer Science A	This course teaches concepts and principles of computer science with emphasis on object-oriented programming. The course uses the Java programming language. Students enrolled in this class should take the AP Computer Science A Exam in the spring. There is no prerequisite for this course but prior programming experience with an object-oriented language is desirable.
Computer: HTML	This course will teach fundamentals of web page creation using Hyper-text Markup Language (HTML) and Cascading Style Sheets (CSS). We will create our pages the "old-fashioned way" using an html-oriented development environment (Brackets from Adobe, or replit.com online) to create the html and css files. We will start from the very beginning and move as far into HTML5 as time permits. The end goal is to develop an elegant, responsive website focused on a significant topic. No prior programming or HTML experience is required of students who register in this course.
Computer: Data Science	This course centers around data science: the study of collecting, analyzing, and learning from data. Students will discuss the collection, organization, and analysis of data with the goal of effectively extracting and visualizing useful information. Students in data science will learn Python coding skills, discuss the ethical implications of data analysis and algorithms, and learn how data science can be applied in a variety of fields. There is no prerequisite for this course.
Computer: Foundations of Computer Science	This course is a broad foundational introduction to the discipline of computer science. Students will learn the Python coding language while learning broadly what computer science is, applications of computer science in other disciplines, and best practices in coding. In addition to coding, students will analyze and discuss the ethical implications of algorithms, data collection, and data use. No prior programming experience is required.

<p>Computer: Arduino</p>	<p>The Arduino is an open-source electronics platform built on easy-to-use hardware and software. The Arduino is able to read inputs from a wide variety of devices such as a button, an ultrasonic distance sensor, and or a joystick. It also sends outputs to devices such as a motor, a speaker or an LED array. Using a version of the C programming language, students program the electronic devices they create. This course is excellent preparation for the Upper School robotics program. It is an introductory course and has no prerequisites.</p>
<p>Computer: Advanced Computational Modeling</p>	<p>This course will teach students how to use computer programming to model natural phenomena. The course will include units on Climate Modeling, Network Science, and Complex Systems. This interdisciplinary lens will allow students to build models that are related to their fields of interest, from understanding impacts of climate change to modeling disease spread through a community or migration patterns of birds. This is a project-based course with a variety of modeling projects throughout the term. Prerequisites: Successful completion of a Python course or approval from the Computer Science Department Chair.</p>
<p>Computer: Data Science II</p>	<p>This course is a continuation of Data Science. Students will build on the skills they learned in Data Science to collect, organize, analyze, visualize, and communicate data in a meaningful way. Students will learn a variety of ways to implement this in Python. This is a project-based course with a variety of data-driven research projects throughout the term. Prerequisites: Successful completion of Data Science or approval from the Computer Science Department Chair.</p>

English

The goal of the Waterford English curriculum is to increase students' critical thinking, speaking, and writing skills while engendering a deep appreciation for the study of literature. Students study both foundational and contemporary texts in an effort to explore the possibilities of literary art and to recognize the ongoing conversations in which writers (and readers) can participate. In middle school, students develop their skills as analytical, creative, and personal writers by engaging with compelling works of literature. They process their ideas through writing as well as discussion, and students begin to learn and practice the conventions of effective conversations about literature. In the Upper School years, students situate texts within historical, philosophical, and literary contexts, honing their understanding through discussion and writing. They practice their skills under increased expectations to take responsibility for their own learning and to develop their voice as writers. Students are empowered to work toward original ideas and to take charge of their experience with literature. A broader and more informed understanding of the human experience, coupled with the ability to think critically about themselves and the world around them, prepares Waterford students for their lives ahead.

Middle School

Humanities VI	Class VI Humanities gives students the opportunity to build connections: between lower and middle school, between literature and history, and between their lives and the greater world. The curriculum emphasizes both critical and creative thinking. In the literary component of this course, students are coached to become strong writers across genres and mediums, from traditional writing projects to digital formats. Frequent writing assignments draw upon content from both literature and history readings and allow students to broaden their range of writing skills and to practice multiple modes of writing. The historical side of Class VI Humanities also uses a multi-faceted approach. In addition to exploring resources in a digital textbook, students examine primary sources, period art, music, and popular culture to understand the time period holistically. In Class VI Humanities, students will strengthen critical thinking skills, develop bold writing styles, and increase intellectual confidence.
English VII	Students in Class VII English explore various modes of literature to explore essential questions about life, growing up, and navigating an increasingly complex world. They read novels, plays, non-fiction narratives, short stories, and poems to develop their skills as readers, writers, and thinkers. Through discussions, writing prompts, and personal responses, students learn literary vocabulary and fundamental skills of interpretation to improve their experiences as readers and writers. Specifically, they hone their abilities to compose focused paragraphs, support writing with evidence from the literary work, and compare and contrast ideas. They practice many of the foundational skills they learned in Class VI while continuing to build their voices as writers. Drafting, revision, and workshop experiences support several essay assignments, and students learn to respond to feedback in the drafting process to produce more polished final works. Additionally, students practice recitation of foundational literary works to deepen their understanding of these texts to create lasting connections to literature.

English VIII	Class VIII English introduces students to myths, heroes, journeys, and transitions. Throughout the year, students read classic texts that are paired with contemporary titles. In their writing, they learn the foundations of analytical writing and explore personal and creative responses. They receive explicit instruction in discussion and collaboration skills that will prepare them to learn best in the seminar-style classes to come. Over the course of the year, they will practice taking on new perspectives, communicating professionally with their peers and teachers, and reading for significance as they tackle challenging and engaging texts. This course positions students to reflect on their own educational journey thus far and inspires students to see the relevance of studying ancient stories today.
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Upper School

English IX	Class IX English is a year-long course that explores coming-of-age stories as students practice literary analysis and interpretation. Students continue to develop their reading, speaking, and writing skills with special attention given to literary terms that allow us to understand complex texts in depth. Students read works of literature that are representative of different literary formats: graphic novel, allegory, poetry, prose, personal essay, drama, etc. Students are encouraged to question why the author made particular choices in their examination of texts. They undertake extensive practice in writing, building on an understanding of paragraph structure to begin expanding beyond the traditional five-paragraph essay. Students are encouraged to push further with their arguments and to challenge themselves to consider original ideas and to push beyond their initial observations about a text. As an inflection point in the students' journey through the English curriculum, Class IX builds on their progress in middle school while acculturating them to the new demands of the upper-school curriculum.
English X	Class X English is a year-long course focused on British literature, and students study both foundational and contemporary texts. These include selected Shakespeare plays, and various British novels, short stories, and poetry. The course undertakes both close analysis of the texts and discussion of the broader themes and intellectual movements that informed these works. Frequent essays serve to sharpen students' analytical and expository skills and are used to develop their understanding and mastery of the process of literary analysis. Students make important strides with their critical thinking and writing skills that prepare them for the Class XI English curriculum.
English XI	Class XI English is a year-long course focused on some foundational and contemporary texts of American literature. It prepares students to be high-level thinkers, readers, and writers. The course introduces students to canonical works from early American literature and more contemporary novels, plays, short stories, and poetry. Students engage with texts to sharpen their analytic skills and write essays to demonstrate their growing ability to synthesize close reading, broader analysis, and purposeful writing. Students are encouraged to aim for originality in their ideas and to take on the responsibility of writing precise and complex arguments. High-level discussions allow students opportunities to explore the texts in depth, and frequent writing assignments give them chances to hone their skills. Class XI English prepares students for AP Literature or English XII, and

	approximates the expectations of college-level writing.
English XII	Class XII English is a year-long course focused on the appreciation and critical analysis of various modes of writing and literature. Students continue to develop both their creative and critical voices, and they read classic and contemporary works of literature to hone their critical eye for complex texts. Writing workshops provide opportunities to develop their skills as they share their work with their peers, and discussion-based classes give students opportunities to foster a community of learners that develop a lifelong appreciation for literature.
English XII: AP English Literature and Composition	Advanced Placement English is a year-long course offering college-level study of literature and literary analysis. Students who successfully complete the course will be ready for advanced study of English in college, and will possess the tools to write a college-level essay with a strong central idea, thesis, and supporting argument; they will also be prepared for the AP Exam in English Literature and Composition. In addition to gaining sophistication as readers and writers, students enrolled in this course should gain a deep appreciation for the quality of intellectual stimulation—and thrill—that comes from real engagement with great literature. Students considering AP Literature for the upcoming year should speak with their current instructor about their preparation for this course. Students enrolled in AP English are expected to sit for the AP English Literature and Composition exam in the Spring.
English: Creative Writing	This course is designed to introduce students to a multitude of forms in creative writing, exploring lyric and narrative structures in fiction, nonfiction, and poetry, as well as mixed media and literary forms that seem to defy definition. Each term will touch on a variety of forms, offering students exposure to traditional and contemporary works as models. This course will emphasize process, guiding students from brainstorm and drafting phases through workshop and revision. This is a student-centered course that relies on strong participation; although one of our main goals is to design and publish a literary magazine at the end of the year, our primary focus remains on fueling the passion, insight, and satisfaction that comes through honing skills in creative writing. This is an elective course and does not satisfy a requirement for an academic course.
Debate	In debate class, students learn the basics of forming and presenting an effective oral argument. They spend significant time on value debate and student congress while working to strengthen extemporaneous speaking skills, research skills, and analytical skills. They learn to think quickly and to express themselves well under pressure. Students have the opportunity to compete in regional and statewide debate tournaments. This is an elective course and does not satisfy a requirement for an academic course.
Yearbook Staff	The yearbook is a student publication that provides an opportunity for students to define, enlarge, and chronicle the Waterford experience, building each year upon the experience and view of the past. The challenge for the editor and staff is to look beyond the obvious, to capture the individual growth and development taking place at Waterford from PreK to Class XII. Under the direction of the advisor, staff members develop mastery in photography, theme development, layout, graphics, computer design, writing, editing, proofreading, and marketing. Student editors also learn

leadership skills as they work with deadlines that are packed tightly in a six-month period. This is an elective course and does not satisfy a requirement for an academic course.



History

The History Department's mission is to support historical thinking, reading, and writing in order to cultivate empathy, nurture curiosity, and encourage global awareness. Our students understand that the way history has been interpreted changes over time, which reflects not only new information about the past becoming available but also the changing perspectives of historians themselves. We challenge our students with rigorous courses that promote the development of personal opinions as well as provide a safe space to engage in civil discourse and the discussion of opposing opinions. Students and faculty share a love of history and see it as a way to understand the complexity of the human condition.

Middle School

Humanities VI	In Class VI Humanities, students build connections: between lower and middle school, between literature and history, and between their lives and the greater world. Students study US history from Reconstruction to the present. While examining primary and secondary sources, students practice historical thinking skills such as chronological reasoning and causation. Students also read literature that connects thematically and contextually with history. They practice close reading skills, annotation, and interpretation. They participate in reading workshops and literature circles with the goal of developing the habits of life-long readers. In writing workshops, students strengthen their writing across various genres, including personal narratives, analytical essays, creative responses, and poetry.
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History VII: Ancient History	This course in Ancient history introduces students to the development of complex ancient civilizations in Asia, Egypt, and Europe. Students learn the basic terms and concepts of prehistory, archeology, and history. They also explore the benchmarks of human achievement and invention and consider the concepts of civilization and progress. Students learn how to organize their study of civilizations by reference to specific, historical categories. The course emphasizes the interpretation of primary and secondary sources, oral and written presentations of historical information, and the organization and construction of historical arguments.
History VIII: Exchanges and Encounters	Exchanges and Encounters investigates the history of human encounters that took place across the globe in the Middle Ages. Students examine the expansion and contraction of empires in the Mediterranean, West Africa, Eurasia, and the Americas, and explore the exchange of ideas, beliefs, and innovations that connected, and at times divided, individuals in this period. Students hone their analysis and understanding of primary and secondary sources as they develop the skills of historical reading and writing.

Upper School

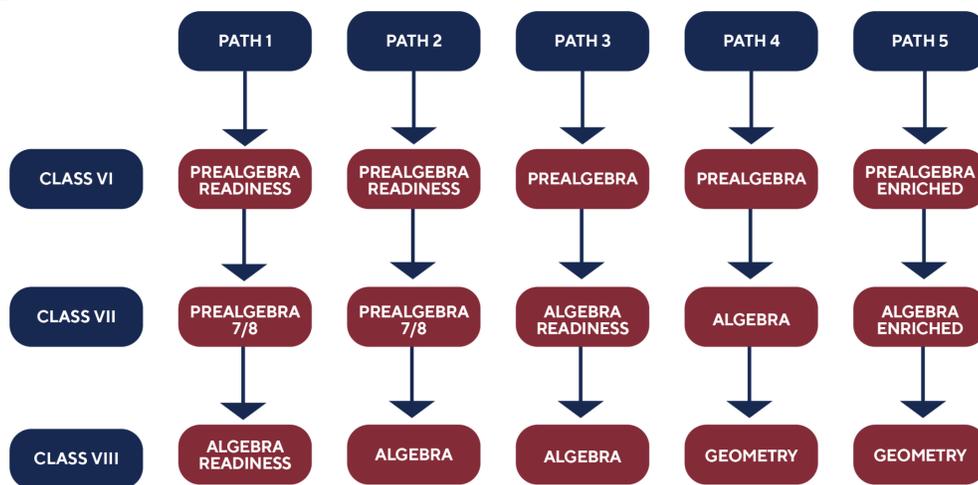
History IX: Human Geography	Human Geography provides students with a social science vocabulary for understanding and describing the world around them. Through an exploration of subjects such as cartography, demographics, economics, urban design, and international conflict, students develop a rich conceptual understanding of our modern world, from local to global scales. A broad set of essays, simulations, and presentations challenge students to master the various communications skills required in these fields. This combination of skills and conceptual language prepares students for the more intensive history courses to come in Upper School and beyond.
History X: Standard European	This course is a survey of modern European history from the Middle Ages through the beginning of the 21st century. A primary focus of this course is helping students develop a deeper understanding of the historian's craft. To this end, students not only hone key skills necessary for evaluating sources to write history but they also produce their own piece of original scholarship. In the process, students learn how historians develop topics and produce persuasive arguments.
History X: AP European	This Advanced Placement course is a survey of European History from the late Middle Ages to the present. In this course, students explore political, economic, social, and cultural themes. They use primary and secondary documents to construct and support historically valid claims. They practice critical historical-thinking skills: understanding causation, comparing and contrasting different events and key figures, noticing continuity and change over time, and identifying patterns and turning points in history. Throughout the year, students prepare for the types of writing and assessments they will experience on the AP exam in May. Because this is a rigorous, college-level course, students should expect to spend a minimum of one hour every night on the homework. Students should speak with their current instructor about their preparation for this course. Students who take this course will be expected to sit for the AP exam in May.

History XI: Standard US	In this course, students continue developing their historical thinking skills through a survey of the history of the United States. From the Colonial period through the present, students engage with primary sources as they build their own sense of the many narratives of history. Papers challenge students to develop their close reading of texts in historical context while written exams push them to construct nuanced historical arguments from those same primary sources. Students leave the course with a rich understanding of both the events of U.S. history and the practice of generating historical knowledge. They are prepared to see the historical context of the world in which they live today.
History XI: AP US	This course develops advanced historical reasoning skills in students through the study of American history. They learn, through analysis of primary and secondary sources, how to compare events, examine change over time, and explain the causes of historical developments. Through essay writing, students master sharing the complexities of history by exploring contradictions and understanding how historians have debated events over time. While students prepare for the national AP exam, they also become better prepared for college-level courses. Students should speak with their current instructor about their preparation for this course. Students who take this course will be expected to sit for the AP exam in May.
History: Economics (with AP Option)	Economics is available to Class XII students as both a term-long (Fall Term) survey of economic topics, and as a year-long AP Microeconomics course. The course will explore the principles of classical economics, entrepreneurship, and business ethics through a curriculum that uses both theoretical models and hands-on experience to address human decision-making under different economic conditions, along with business opportunities and problems and the role of government in the economy. In the Fall Term (which has the same curriculum for both courses), students will develop a broad working knowledge of a variety of micro and macro-economic topics. Those who continue on in the winter will delve into the more rigorous constructs of the price theory model and prepare for the AP Microeconomics exam. Students who enroll for the full-year course will receive AP credit in the fall.
History XII: Senior Electives	<p>Senior history electives offer students an opportunity to explore our global past beyond the core offerings. From original research to new geographical areas and perspectives, students engage with college-level historical work. In the process, students benefit from the passion faculty bring to their own areas of interest and expertise.</p> <p>Electives are taught on a rotating schedule depending on faculty assignments. Current faculty have offered courses on the FBI, comparative religion, race and gender in the American empire, and WWII in the Pacific. Faculty regularly develop new courses, including interdisciplinary courses that are team-taught across departments. Please contact the History Department Chair with questions about particular elective offerings.</p>

Math

Middle School

The goal of the mathematics program in Middle School is to begin the formal study of abstract mathematics and to lay the foundation for future progress in the Upper School. The course sequence and teaching strategies in the math department seek to optimize the balance between practice and discovery to ensure that every student has the conceptual and procedural mastery necessary for success at the higher levels of mathematics. Students progress through the curriculum at an appropriate pace based on their foundational skills. Below are examples of pathways open to Middle School students followed by descriptions of each course.



Math: Pre-Algebra Readiness	Pre-Algebra Readiness is a transition course bridging the Lower School curriculum with our Pre-Algebra course. In this course, students gain a solid foundation of the arithmetic of integers, fractions and decimals as well as how to use these types of numbers in a variety of applied settings. In addition to preparing students for a full Pre-Algebra course, this class marks a beginning of the transition from the ideas of arithmetic to the ideas of algebra and geometry. Students will preview most skills in our Pre-Algebra curriculum while continuing to gain a solid foundation of their basic skills.
Math: Pre-Algebra	Although this class is called Prealgebra, the course is well described as transition math. In addition to preparing students for algebra, this class marks the transition from the ideas of arithmetic to the ideas of algebra and geometry. Students explore topics in this class including integers, measurement, use of variables, problem solving strategies, organization of data, area, volume, and graphing. In addition to practicing and learning these skills, students participate in activities, work on projects, use technology, and write about the mathematics they are learning. We offer Enriched sections of this curriculum that focus on problem solving. Students in the enriched section have already established mastery of procedural skills required in the class.
Math: Algebra Readiness	Algebra Readiness is a course that is designed to help students bridge our Prealgebra and Algebra curricula. Students in this course begin their study of Algebra, but the focus is on developing a conceptual understanding of the processes they will study in depth in the following year. Students in this course are engaged with hands-on and computer aided representations of algebraic procedures. Students will preview most concepts in Algebra, while still continuing to gain a solid foundation of Pre-Algebra skills.

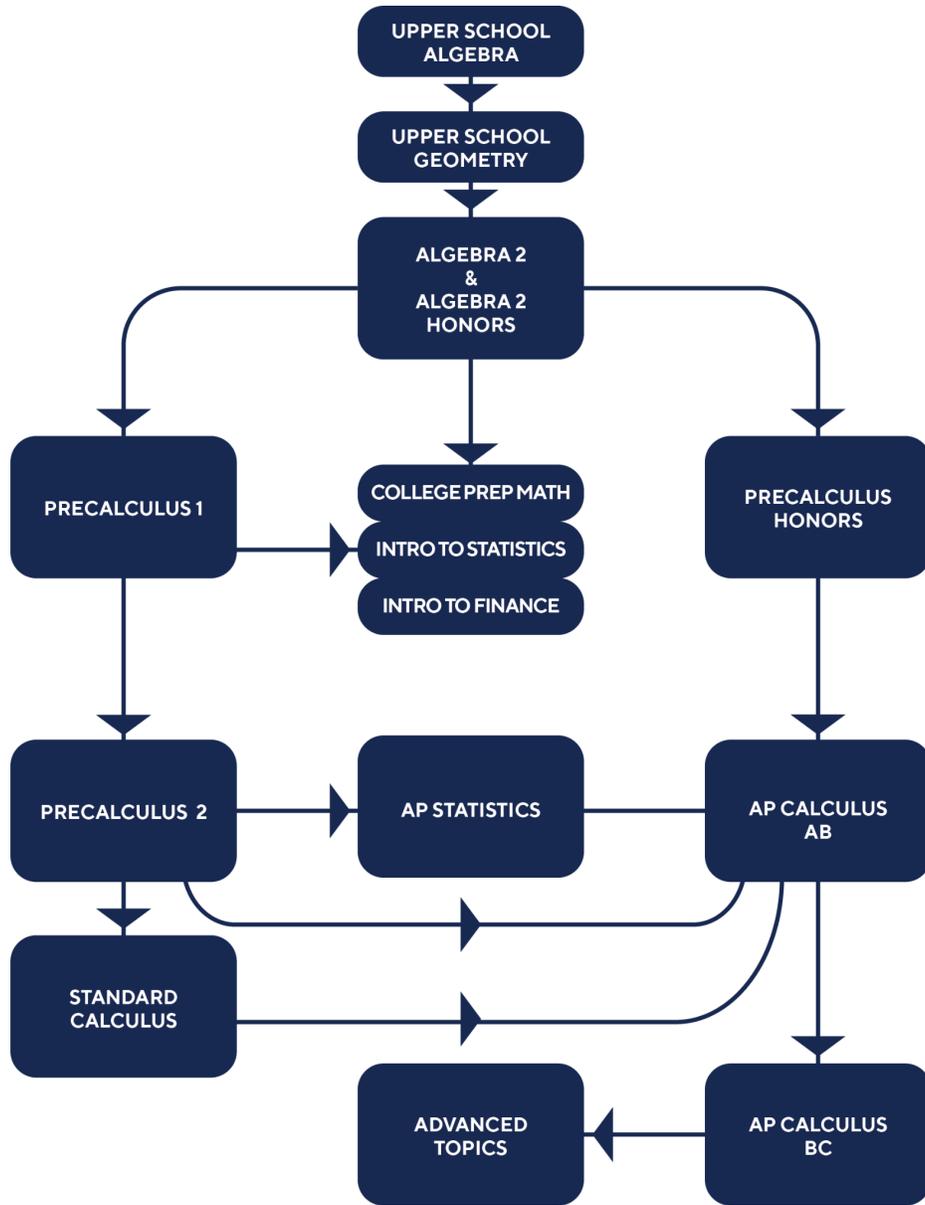
<p>Math: MS Algebra</p>	<p>Algebra is the first course in the core curriculum at Waterford. It is a course that generalizes the arithmetic of early years into a formal, symbolic language. Each student is introduced to the various aspects related to understanding algebra: its skills, its properties, its uses, and its representations. During the year, a student develops mathematical power meaning the ability to explore, to conjecture, to reason logically, to solve non-routine problems, to communicate about mathematics, and to connect mathematical ideas. Students in the Algebra curriculum study the use of variables and operations involving algebraic symbols, including function notation. They learn how to model and solve different types of algebraic sentences, including linear, exponential and quadratic equations and inequalities. They work with exponents, radicals, and rational expressions and they learn how to solve and graph linear, exponential and quadratic functions. We offer Enriched sections of this curriculum that focus on applications and problem solving for students who have already mastered the procedural skills.</p>
<p>Math: MS Geometry</p>	<p>The Geometry course connects the physical and visual world with students' previous knowledge of algebra. Importantly, students learn how to communicate mathematical reasoning and to provide logical justifications for conjectures. The major themes of this course are organized around a traditional Euclidean geometry. Students explore relationships among lengths, angles, and measures in figures of all kinds, especially, polygons and circles. The course covers geometric formulas, coordinate geometry, and the use of transformations to explore congruence, similarity, right triangle trigonometry and symmetry, students are required to learn how to justify their own thinking using both informal and formal methods. The students gain skills both in classical constructions as well as the tools provided by technology. In addition, this course provides the first formal exploration into an axiomatic mathematical system.</p>



Upper School

The goal of our Upper School math program is to offer a wide range of courses that will challenge each of our students at the appropriate level for their age, ability and needs. Through their four years of math study, students gain critical mathematical thinking skills including algebraic thinking and problem solving using technology when appropriate. After completing foundational courses, students have options to pursue further studies in advanced mathematics and

applied mathematics. A student's mathematical power increases as the student is required to explore, to conjecture, to reason, to solve non-routine problems, to communicate mathematically and to make mathematical connections between concepts and among disciplines. The chart below illustrates typical flows through our Upper School Mathematics program and is followed by specific descriptions for each course:



Math: US Algebra	Algebra is the first course in the core curriculum at Waterford. It is a course that generalizes the arithmetic of early years into a formal, symbolic language. Each student is introduced to the various aspects related to understanding algebra: its skills, its properties, its uses, and its representations. During the year, a student develops mathematical power meaning the ability to explore, to conjecture, to reason logically, to solve non-routine problems, to communicate about mathematics, and to connect mathematical ideas. Students in the Algebra curriculum study the use of variables and operations
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	<p>involving algebraic symbols. They learn how to model and solve different types of algebraic sentences, including linear, exponential and quadratic equations and inequalities and work with both discrete and continuous functions. In addition, they work with exponents, radicals, and rational expressions and they learn how to solve and graph linear, exponential and quadratic equations.</p>
Math: US Geometry	<p>Geometry connects the physical and visual world with students' previous knowledge of algebra and learn how to communicate mathematical reasoning and to provide logical justifications for conjectures. The major themes of this course are organized around a traditional Euclidean geometry. Students explore relationships among lengths, angles, and measures in figures of all kinds, especially, polygons and circles. The course covers geometric formulas, coordinate geometry, and the use of transformations to explore congruence, similarity, right triangle trigonometry and symmetry, students are required to learn how to justify their own thinking using both informal and formal methods. The students gain skills both in classical constructions as well as the tools provided by technology. In addition, this course provides the first formal exploration into an axiomatic mathematical system.</p>
Math: Algebra 2/ Algebra 2 Honors	<p>Algebra 2 is a continuation of the study of Algebra, tackling concepts and skills beyond linear, exponential, and quadratic equations. It introduces the student to the skills, properties, uses and representations of the more complex aspects of algebra. The course covers the specific topics of functions including polynomial, power, rational, exponential and logarithmic.. Students learn to connect the analytic representation with numerical and graphical representations. Students learn to use technology as a tool to explore and solve problems previously inaccessible using basic skills of analysis. Finally, students continue to build their skills of mathematical reasoning and verbal and written communication.</p> <p>All students enrolled in this course have the option to opt into the Honors curriculum. Students in this track cover the additional topics of matrices, probability and sequences and series. In addition, Honors students are expected to participate in math contests and spend time helping other students in their roles as mathematical experts. Students who complete this Honors course are eligible to enroll in the accelerated Precalculus Honors course.</p>
Math: Precalculus 1	<p>Precalculus 1 is a course designed to formalize and intensify a student's understanding of functions. Students learn to work both analytically and graphically with functions. They review polynomial, rational, exponential and logarithmic functions and are introduced to power and trigonometric functions. Students study trigonometry in depth, learning how to solve trigonometric equations and prove identities, with a focus on real-world applications. Throughout the entire course, students learn how to model real world problems using their library of functions. Students use handheld and other technology to explore and answer questions they previously could not using only analytic techniques.</p>

<p>Math: Precalculus 2</p>	<p>Pre-Calculus 2 is a continuation of the Precalculus 1 curriculum. It introduces and focuses on both infinite and finite processes. Its topics include functions, polar coordinates, complex numbers, advanced trigonometry and vectors, and introductions to the basic concept of a limit. In addition, in this course students delve into some topics of discrete mathematics, looking at the finite and iterative processes. Its topics include logic, sequences, algorithms, recursion and induction, combinatorics and matrices. This course also introduces students to probability and data analysis. The focus of this course is developing students' mathematical thinking in the context of these new and somewhat unfamiliar math topics. Students use handheld and other technology to explore and answer questions they previously could not using only analytic techniques. After completing this course, students are prepared for advanced study in Calculus or Statistics.</p>
<p>Math: Precalculus Honors</p>	<p>Precalculus Honors is an accelerated course that covers the two courses Precalculus 1 and Precalculus 2 in one year. Students learn to work with functions both analytically and graphically. They review polynomial, power, rational, exponential and logarithmic functions and are introduced to trigonometric functions. Students study trigonometry in depth, learning how to solve equations and prove identities. In addition, students learn polar coordinates, complex numbers, advanced trigonometry and vectors, and are introduced to limits. Also, students become familiar with the discrete mathematics including logic, sequences, algorithms, recursion and induction, and combinatorics.. Throughout the entire course, students learn how to model real world problems using their library of functions. Students use handheld and other technology to explore and answer questions they previously could not using only analytic techniques. This course moves quickly and upon completion, students are prepared for the AP Calculus AB course. Students are eligible to be in this course by completion of Algebra 2 Honors or by exam.</p>
<p>Math: Calculus</p>	<p>The course is rigorous and thorough study of Calculus, but is a step back from the demands of the AP Calculus curriculum. It is designed for students who are prepared and interested in calculus but lack the time required for a thorough preparation for the AP Exam. This course will include a review of Precalculus topics and functions and then introduces students to limits, differential calculus, integral calculus and applications of calculus. After taking this course, students are very well prepared for AP Calculus or any other college level calculus course.</p>
<p>Math: AP Calculus AB</p>	<p>The curriculum of the Advanced Placement Calculus AB course follows the specifications required by the College Board. Specific topics include an extensive study of the common functions including exponential, logarithmic, rational, and trigonometric; limits and continuity; derivatives and differentials; techniques of differentiation; applications of differentiation; antiderivatives, integration, differential equations and applications of integration. Students learn to connect the analytic representations with numerical and graphical representations and do so in many applied settings. This approach allows formal definitions and proofs to evolve from extended exposure to common sense investigation, rather than memorizing abstract algorithms. In addition, students focus on gaining advanced skills in communicating mathematical thoughts and reasoning. Finally, students are taught appropriate uses of hand-held and other technology that will allow them to explore and solve problems previously inaccessible using basic skills of analysis. Students are expected to take the AP Calculus AB exam at the completion of the course.</p>

Math: AP Calculus BC	The curriculum of the Advanced Placement Calculus BC course follows the specifications required by the College Board. This course is designed to be a continuation of the Advanced Placement Calculus AB curriculum. While continually reviewing the basic calculus topics covered in the AP Calculus AB curriculum, students learn the new topics of infinite series (including power, geometry and Taylor polynomials); the calculus of conic sections and polar coordinate; three-dimensional analytic geometry, vector functions and curvilinear motion, vector integral calculus, differential equations, vectors and vector fields, parametric equations. A prerequisite for this course is successful completion of AP Calculus AB. Students are expected to take the AP Calculus BC exam.
Math: AP Statistics	The curriculum of the Advanced Placement Statistics course follows the specification required by the College Board. The purpose of this course is to provide a practical introduction to statistics. As such, the focus is primarily on the statistical thinking behind data gathering and interpretation with less emphasis on computation and theory. General topics taught in this course are producing data, organizing data and statistical inference. Producing data will include learning the ideas behind what constitutes "good" data, how to select samples and design studies and experiments. Organizing data includes learning the methods and strategies for exploring, organizing and describing data using graphs and numerical summaries. Students learn techniques of decision-making using probability including statistical tests of inference (z-tests, t-tests and Chi-squared tests) as well as confidence intervals. Students learn to use hand-held and other technology to help them tackle statistical problems from real-world data. Students are expected to take the AP Statistics exam.
Math: Advanced Topics	This course is designed for advanced math students who have already completed the full breadth of our other math courses, including all Advanced Placement courses. Content for each term is determined by teacher and by interest of students, and may include topics such as linear algebra, number theory, multivariate calculus, the history of mathematics and advanced proof and reasoning. Students may enroll in Advanced Topics multiple years or, after completing this course for one year, they may design an independent study course with a math faculty member.
Math: College Preparatory Mathematics	College Preparatory Mathematics is a term-long course offered in Fall Term. This course is for seniors and introduces them to how mathematics is used in different academic areas, focusing on making sure students are prepared for the rigor and content of an entry level college math course. Topics will vary from term to term and may include a review of previous math curriculum, quantitative reasoning, number theory, formal logic, set theory, and probability. In addition, students learn mathematics from cross-curricular areas such as democratic decision making (voting systems) and fair division processes. This course is not designed for students who have completed an AP level math course at Waterford. Rather, this course helps ensure students have a familiarity with the mathematics that they will be expected to master before graduation from college. This course is open to all seniors.
Math: Introduction to Statistics	Introduction to Statistics is a term-long course offered in Winter Term. It is for seniors and is designed to introduce students to the language and decision making processes used in a world full of data. Students will learn to see the world around them through the eyes of a statistician, from data gathering, experimental and observational design. Students explore gathering, describing, displaying and making decisions using data. This course is not open to students who have already studied AP Statistics.

Math: Introduction to Financial Math	Introduction to Financial Math is a term-long course offered in Spring Term. It is for seniors and is designed to give students an introduction to all aspects of financial mathematics. The course focuses on applications of personal finances including savings, credit, loans, investments, and taxes. Students will learn to use spreadsheets to analyze real life budgets and track spending and investments. In addition, students learn about the more general world of financial mathematics including real estate, investing and basic economics. This course is open to all seniors.
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Science

The Waterford Science Program develops in each student a foundation in current human understanding of the fundamental physical and natural sciences underpinned by knowledge of the historical context of scientific advancement. We provide students with the capacity to evaluate arguments based on evidence, reach appropriate conclusions and pose scientific questions. Students develop the skills of a scientist: making observations, drawing on established knowledge, organizing knowledge in a logical manner, collecting and processing data, choosing and safely using appropriate scientific tools, and learning to communicate within the global community of scientists. Our goal is to foster the ability, and sense of responsibility to the application of science knowledge. We seek to develop in students scientific skills and the ability to expand human knowledge. Ultimately we wish to furnish students with an appreciation of the beauty of our universe and the uniquely human endeavor of science.

Middle School

Science VI	Class VI Science is an exciting and foundational year of instruction as students make the transition from Lower School to Middle School. We will build on the joy and enthusiasm students gain relative to science in their lower school years while introducing them to relevant and engaging topics in the field of science. With a particular emphasis on understanding the science behind their "Home in Utah," students will learn about geology, biology, paleontology, astronomy and more. We will explore questions such as "Why are Little and Big Cottonwood Canyons different shapes?" "What dinosaurs lived in Utah?" "How deep was Ancient Lake Bonneville?" and many more while we look for clues to our geologic history in our own backyard. Students will learn about how scientists use models to understand very large and very small scales in time and space. They will practice analyzing and using evidence to explain phenomena. They will be introduced to the concepts of framing scientific questions, posing hypotheses and carrying out experiments to address those hypotheses. Students are guided through their Middle School transition as they navigate science homework and tests. They practice skills such as managing Canvas, communicating via email, and staying organized with digital files in Google Drive, all of which are important as the technology expectations of Middle School are greater than they may have experienced in previous years. The skills they gain in Class VI science will build the foundation for their Class VII science course and their exploration of science in years beyond.
Science VII: Physical Science	Class VII Physical Science is a year-long course whose purpose is to give the students a beginning knowledge of physical and chemical science and to explore the means by which scientific knowledge is acquired. Primary content topics include matter, atomic structure, and energy. Students will develop fundamental experimentation skills, including laboratory safety, reading scientific instruments, and graphing data. The course is very hands-on with students posing questions, constructing experimental apparatuses and carrying out experiments. Students use experimentation and guided reasoning to collect, display, and analyze data in order to draw data-based conclusions.
Science VIII: Life Science	Life Science is a year-long course that serves as a rigorous investigation into the structure and function of living organisms, how information is organized and reproduced in organisms, and the larger systems of interacting species. General objectives include: understanding the basics of how

life is organized and sustained, developing laboratory and field skills for biological study, gaining an appreciation for the diversity of life, and developing a knowledge of biology that will inspire and fuel future study in the biological sciences. The development of field skills for biological study is framed in large part around projects based in nearby natural habitats. The course covers many topical areas in the broad field of biology, including taxonomy, cellular biology, molecular biology and genetics, ecology, evolution and human biology.



Upper School

Science IX: Physics

Class IX Physics is a year-long course which builds a foundational knowledge of classical mechanics including: motion, Newton's laws, energy, and momentum. Electricity and magnetism are explored through an investigation into how humans have harnessed knowledge to build our modern world and to advance technological innovation such as seen in the design of electric vehicles. Students are asked to apply their algebra skills to science problems, demonstrating for them the fundamental connection between science and mathematics. The course delves into many examples of applied physics as seen in structural and mechanical engineering and robotics. Students are actively involved in various design challenges that require them to demonstrate and apply physics concepts. The course is designed to provide a strong understanding of concepts that form the foundation of subsequent courses of Chemistry and Biology. Note: students with advanced mathematical skills can request placement in AP Physics 1 in lieu of Class IX Physics.

Science X: Chemistry Standard	This course offers an introduction to the principles and mathematics of college-preparatory chemistry. The topics we study, including atomic structure, nuclear reactions, mole theory, phase change, gas laws, quantum theory, periodicity, chemical bonding, organic chemistry, chemical kinetics (rates and mechanisms), thermodynamics, equilibriums, acid-base theory, and redox reactions are imbedded in the history of science from the French Revolution to the modern era. This class incorporates a laboratory period once a week, which includes 30 minutes of the lunch hour. While the conceptual rigor of this course often matches that of the Honors course, the mathematical and computational demands are not as great.
Science X: Chemistry Honors	This course offers an introduction to the principles and mathematics of college-preparatory chemistry in a slightly more rigorous manner than our Standard course. The topics we study, including atomic structure, nuclear reactions, mole theory, phase change, gas laws, quantum theory, periodicity, chemical bonding, organic chemistry, chemical kinetics (rates and mechanisms), thermodynamics, equilibriums, acid-base theory, and redox reactions are imbedded in the history of science from the French Revolution to the modern era. This class incorporates a laboratory period once a week, which may include part of a lunch hour.
Science XI: Physics	This course offers a rigorous exposure to the principles and mathematics of college-preparatory physics through a conceptual lens. While applications of mathematics to the field are discussed, most of the topics we study are discussed in the context of how they apply to real-world situations and actual applications are emphasized. Topics discussed include Newton's laws of motion, thermodynamics, electricity and magnetism and structural engineering. This class will provide students a fundamental introduction to the physics they will encounter in college.
Science: AP Biology	AP Biology is an intensive course designed to be the equivalent of an introductory biology course taken in college. The emphasis is on developing an understanding of biological concepts rather than an accumulation of facts. students are exposed to a wide range of biological concepts such as cytology, genetics, evolutionary biology and ecology. The course is designed to help students understand and appreciate the science of biology as a process and a personal experience in scientific inquiry that develops their problem solving and critical thinking skills. All students are expected to take the AP Biology exam in May.
Science: AP Environmental Science	The AP Environmental Science course is the equivalent of a one-semester, introductory college course in environmental science. Unlike most other introductory-level college science courses, environmental science is inherently interdisciplinary, drawing from the sciences of geology, biology, environmental studies, chemistry, and geography. Within this are several major unifying themes including understanding the flow of energy within the biosphere, the integral interconnectivity of ecosystems and the role of human activities on the function of those ecosystems. The course provides 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. All students are expected to take the AP Environmental Science exam in May.

Science: AP Chemistry	This course is equivalent to a year of first-year college chemistry. Some of the topics covered throughout the year include stoichiometry, periodicity, atomic theory, quantum mechanics, atomic and molecular bonding, and the behavior of gasses, equilibrium, kinetics, thermodynamics, and electrochemistry. A solid background in mathematics and chemistry are crucial prerequisites for AP Chemistry. All students are expected to take the AP Chemistry exam in May.
Science: AP Physics 1	AP Physics 1 is an algebra-based, introductory college-level physics course, designed to be equivalent to a first-year University-level Physics class. Students cultivate their understanding of physics through classroom study, in-class activity, and hands-on, inquiry-based laboratory work as they explore concepts like systems, fields, force interactions, change, conservation, and waves. All students are expected to take the AP Physics 1 exam in May.
Science: AP Physics C	This class is an in-depth study of both classical Newtonian mechanics and classical electricity and magnetism using math skills up to and including calculus. Students are prepared to take the C level exam in mechanics and in electricity and magnetism. Students are required to have completed one year of physics and one year of calculus AB as prerequisites for this very challenging course. All students are expected to take the AP Physics C exam in May.
Science: Molecular Biology	This lab-based elective employs the techniques currently used to study the scientific principles (and their ethical ramifications) in the emerging field of molecular genetics and genomics. Dual emphasis is placed on the theoretical foundations of this "modern biology" as well as the practical problem-solving skills associated with such state-of-the-art biotechnologies as gel electrophoresis, restriction analysis, PCR, and recombinant DNA technology. As prerequisites, it is expected that students have completed one year of biology and one year of chemistry.
Science: Robotics Lab	In Robotics Lab students design and build remote-controlled and autonomous robots that can carry out interesting functions. In the process of designing and building robotic systems students experience the engineering process, learn how to safely use a wide variety of tools, learn how to troubleshoot, and gain experience in competently employing iterative design/build processes. The course is graded on a Pass/Fail basis. During winter term students have the option to attend several after school sessions per week as part of the Upper School Robotics Competition Team. A minimum of one term of Robotics Lab, at any point in Upper School, is required for team participation.
Science: Electives	The Science Department offers term-long electives in a diversity of topics that spring from the particular interests and expertise of individual faculty. Some electives, such as Robotics Lab and Molecular Biology, are reliably offered each year. Others are offered less regularly, as faculty availability allows. Some examples of recent offerings include Pharmacology, Engineering, Food Science, and Marine Biology. Current offerings are described at each term's registration period. Generally, electives are open to all Upper School students without prerequisite.



World Language

The goal of the World Languages department is to encourage and train students to become proficient in their chosen language. Proficiency includes not only all four language skills (reading, writing, speaking, and listening) but also competence in the target cultures. As a school, we aim to prepare our students to become responsible citizens of the world by acquainting them with new modes of thinking and living. By this, we mean to develop in our students an ability to think critically and flexibly about ideas and issues that affect the world everyday. For this purpose, our program offers different languages such as Latin in Middle School, and Spanish, French, and Mandarin Chinese in Upper School. Our US program also offers an advanced program which culminates with an AP course or elective advanced literature and culture courses that mirror the demands of a second-year language class in university.

Middle School

Latin 1	In this year-long academic course, students will learn to communicate in Latin while establishing a foundation for language learning in general. They will discover the cross-discipline benefits of this ancient language as well as develop a rich appreciation for the classical roots of Western culture and history. In this first year, students will focus on various aspects of Pompeii, including daily life and the eruption of Vesuvius. Language acquisition will focus on reading comprehension, case uses, and verb tenses. Each unit will include reading, writing, speaking, and listening practice in Latin, as well as a study of mythology, culture, history, and English derivatives. Student progress will be assessed through participation in class as well as assignments, quizzes, tests, and final exams.
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Latin 2	In this year-long academic course, students will continue to communicate in Latin while establishing a foundation for language learning in general. Students are expected to have mastered the concepts and vocabulary of Latin 1 in order to continue into Latin 2. In this second year, students will focus on the growth of the Roman empire and the increasing diversity of Roman culture from the early monarchy through the first century A.D. Language acquisition will focus on more complex reading comprehension, all noun cases, additional verb tenses, and noun-adjective agreement. Each unit will include reading, writing, speaking, and listening practice, as well as the study of culture, history, and English derivatives. Student progress will be assessed through participation in class as well as assignments, quizzes, tests, and final exams.
Latin 3	In this year-long academic course, students will transition from the study of Latin morphology to a more syntactical and communicative approach in preparation for languages at the Upper School level. Students are expected to have mastered the concepts and vocabulary of Latin 1 and 2 in order to continue into Latin 3. In this third year, students will continue to examine the culture of antiquity through a focus on ancient epics, primarily the <i>Aeneid</i> . Language acquisition will focus on the passive voice, dependent clauses, and participles. Each unit will include reading, writing, and significant speaking and listening, as well as the study of culture, history, and English derivatives. Student progress will be assessed through participation in class as well as assignments, quizzes, tests, and final exams.

Upper School

Chinese 1	This course is an introduction to the Mandarin Chinese language. It is designed with beginning learners in mind. It introduces students to Chinese with extensive practice, use of visuals, and interactive activities. By integrating all four of the language skills (reading, speaking, listening, and writing) from the beginning, students are better prepared to become proficient users of the language. Students build a strong foundation of correct pronunciation, tones, and simplified hanzi (Chinese characters). Basic grammar principles, writing and listening exercises, and speaking activities are integrated into each unit. In addition to grammar and vocabulary, students learn about Chinese culture and are encouraged to think critically with essential questions. Themes introduced include greetings, family, dates & time, hobbies, and visiting friends. The relationship between the Chinese language and culture is highlighted through art, music, film, current events, and activities from the Chinese speaking world.
Chinese 2	This course is a continuation of the study of the Mandarin Chinese language. It is designed with second-year learners in mind. By integrating all four of the language skills (reading, speaking, listening, and writing) students continue to learn to become proficient users of the language. Students build on their foundation of hanzi (Chinese characters), and they learn several hundred more. Additional basic grammar principles, writing and listening exercises, and speaking activities are integrated into each unit so that students learn to express themselves in a progressively more sophisticated way. In addition to grammar and vocabulary, students learn about Chinese culture and are encouraged to think critically with essential questions. Themes introduced include making appointments, studying Chinese, school life, shopping, and transportation. The relationship

	<p>between the Chinese language and culture is highlighted through art, music, film, current events, and activities from the Chinese speaking world.</p> <p>Prerequisite: Successful completion of Chinese 1 or placement interview</p>
Chinese 3	<p>This is an intermediate-level Chinese course, designed with third-year learners in mind. By integrating all four language skills (reading, speaking, listening, and writing) students continue to learn to become proficient users of the language. Students build on their foundation of hanzi (Chinese characters), and learn several hundred more. Intermediate grammar principles, writing and listening exercises, and speaking activities are integrated into each unit so that students learn to express themselves in a progressively more sophisticated way. In addition to grammar and vocabulary, students learn about Chinese culture and are encouraged to think critically with essential questions. Some themes that are introduced include weather, dining out, asking directions, social gatherings, and health. The relationship between the Chinese language and culture is highlighted through art, music, film, current events, and activities from the Chinese speaking world.</p> <p>Prerequisite: Successful completion of Chinese 2 or placement interview</p>
Chinese 3 Honors	<p>This is an intermediate-level Chinese course, designed to help motivated learners prepare to take AP Chinese the following year. By integrating all four of the language skills (reading, speaking, listening, and writing) students continue to learn to become proficient users of the language. Students build on their foundation of hanzi (Chinese characters), and learn several hundred more. Intermediate grammar principles, writing and listening exercises, and speaking activities are integrated into each unit so that students learn to express themselves in a progressively more sophisticated way. In addition to grammar and vocabulary, students learn about Chinese culture and are encouraged to think critically with essential questions. Some themes that are introduced include weather, dining out, asking directions, social gatherings, and health. The relationship between the Chinese language and culture is highlighted through art, music, film, current events, and activities from the Chinese speaking world.</p> <p>Prerequisite: Successful completion of Chinese 2 and teacher recommendation</p>
Chinese 4	<p>This is a fourth-year Chinese course designed to help students maintain and strengthen their proficiency and interest in their chosen world language. It also prepares students for success in university level language classes. More emphasis is placed on understanding the target culture, with students frequently preparing and presenting cultural presentations. Students learn and use more advanced vocabulary and idioms. They learn several hundred more simplified hanzi (Chinese characters), and how to use them in increasingly sophisticated sentences. Chinese is the main mode of communication in the classroom. Emphasis is placed on the ability to narrate stories, synthesize information, and give strong presentations. Students regularly respond to writing prompts, and then discuss them in class. All assignments continue to foster students' interpretive, interactive, and presentational skills.</p> <p>Prerequisite: Successful completion of Chinese 3</p>

<p>Chinese: Advanced Studies</p>	<p>This course is an accelerated Chinese course for students who can already speak and understand Chinese, but who mainly need to improve their Chinese reading and writing skills. Students move through our regular Chinese curriculum, but at a faster pace, because they already know most of the vocabulary and grammar, and can thus focus almost exclusively on improving their literacy skills. In addition to learning hanzi characters, students learn about Chinese culture and they are encouraged to think critically with essential questions. The relationship between the Chinese language and culture is highlighted through art, music, film, current events, and activities from the Chinese speaking world. Students typically enroll in two or three years of Advanced Studies before taking the AP Chinese course.</p> <p>Prerequisite: Placement interview</p>
<p>AP Chinese</p>	<p>AP Chinese helps students achieve upper-intermediate proficiency in Mandarin Chinese listening, speaking, reading, and writing, with the overall aim of successfully taking the AP Chinese Exam. Students regularly engage with authentic listening and reading tasks. They learn several hundred more simplified hanzi (Chinese characters), and how to use them in increasingly sophisticated sentences. Emphasis is placed on the ability to narrate stories, respond to email messages, engage in conversations, and give cultural presentations. Students regularly respond to writing prompts, and then discuss them in class. Themes that are discussed include Chinese festivals, history, travel, health, social issues, and environmental topics. Many additional aspects of Chinese culture are explored, particularly as they enhance the students' ability to communicate effectively.</p> <p>Prerequisite: Successful completion of Chinese 3 Honors or placement interview</p>
<p>French 1</p>	<p>This course is an introduction to the French language, and is designed with beginning learners in mind. It introduces students to French with lots of practice, visuals, and interactive activities. By integrating all four of the language skills (reading, speaking, listening, and writing) from the beginning, students are better prepared to become proficient speakers of the language. Students learn useful phrases and vocabulary and practice basic skills such as greetings, introductions and talking about themselves and others. Unit vocabulary themes include family, school, days and months, numbers, food, telling time and more. Basic grammar principles, writing and listening exercises, and speaking activities are integrated into each unit. In addition to grammar and vocabulary, students learn about Francophone cultures and are encouraged to think critically with essential questions. The relationship between the French language and French culture is highlighted through art, music, and activities from the Francophone world.</p>
<p>French 2</p>	<p>This course is a continuation to the introductory study of the French language, and is designed with second-year learners in mind. It introduces students to Spanish with lots of practice, visuals, and interactive activities. By integrating all four of the language skills (reading, speaking, listening, and writing) from the beginning, students are better prepared to become proficient speakers of the language. Students learn useful phrases and vocabulary and practice basic skills such as talking about themselves and others in a progressively more sophisticated way. Unit vocabulary themes include sports, traditions, work, food, health, art and social changes. Basic grammar principles, writing and listening exercises, and speaking activities are integrated into each unit. In addition to</p>

	<p>grammar and vocabulary, students learn about Francophone cultures and are encouraged to think critically with essential questions. The relationship between the French language and French culture is highlighted through art, music, and activities from the Francophone world.</p>
French 3	<p>This is an advanced French course designed to prepare students for the demands of a third-year university language course. Students will be required to learn and use advanced vocabulary and idiomatic expressions. We will review major grammatical structures in an effort to master each use. For this, regular practice at home will be expected. Great emphasis will be placed on speaking with fluency, grammatical correctness, and rich vocabulary. Several writing assignments will be required to practice formal and informal writing. Class will be conducted in French and students are required to use French in the classroom. Out of class reading, written and oral assignments will be required. Those will focus on relevant literary, cultural, artistic, and historical topics to practice the language at a more sophisticated level.</p>
French 3 Honors	<p>This is an advanced French course designed to prepare students for the demands of the pre-AP and the AP language courses. Students will be required to learn and use advanced vocabulary and idiomatic expressions. We will review major grammatical structures in an effort to master each use. For this, regular practice at home will be expected. Great emphasis will be placed on speaking with fluency, grammatical correctness, and rich vocabulary. Several audio recordings and writing assignments will be required to practice formal and informal discourses . Class will be conducted in French and students are required to use French in the classroom. Out of class reading, written and oral assignments are assigned. Those will focus on relevant literary, cultural, artistic, and historical topics to practice the language at a more sophisticated level.</p>
French 4	<p>This is a fourth-year French course designed to help students maintain and strengthen their proficiency and interest in their chosen world language. It also prepares students for success in university level language classes. More emphasis is placed on understanding the target culture, with students frequently preparing and presenting cultural presentations. Emphasis is placed on speaking with fluency, grammatical correctness, and rich vocabulary. Several writing assignments will be required to practice formal and informal writing. French is the main mode of communication in the classroom. Out of class reading, written and oral assignments are assigned. Those will focus on relevant literary, cultural, artistic, and historical topics to practice the language at a more sophisticated level.</p>
AP French	<p>This is an advanced French course designed to prepare students to take and pass the AP French exam at the end of the year. In this rigorous course, students will be required to learn and use advanced vocabulary and idiomatic expressions. We will review major grammatical structures in an effort to master each use. For this, regular practice at home will be expected. Great emphasis will be placed on speaking with fluency, grammatical correctness, and rich vocabulary. Several writing assignments will be required at home to practice formal and informal writing. Class will be conducted in French and students are required to use French in the classroom. Out of class reading, written and oral assignments will be required. Those will focus on relevant literary, cultural, artistic, and historical topics to practice the language at a more sophisticated level.</p>

Spanish 1	<p>This course is an introduction to the Spanish language, designed with beginning learners in mind. It introduces students to Spanish with lots of practice, visuals, and interactive activities. By integrating all four of the language skills (reading, speaking, listening, and writing) from the beginning, students are better prepared to become proficient speakers of the language. Basic grammar principles, writing and listening exercises, and speaking activities are integrated into each unit. In addition to grammar and vocabulary, students learn about Hispanic cultures and are encouraged to think critically with essential questions. The relationship between the Spanish language and the Spanish culture is highlighted through art, music, and activities from the Hispanic world.</p>
Spanish 2	<p>This course is a continuation to the introductory study of the Spanish language. This course is designed with second-year learners in mind. By integrating all four of the language skills (reading, speaking, listening, and writing) students continue to learn to become proficient speakers of the language. Basic grammar principles, writing and listening exercises, and speaking activities are integrated into each unit so that students learn to express themselves in a progressively more sophisticated way. In addition to grammar and vocabulary, students learn about Hispanic cultures and are encouraged to think critically with essential questions. The relationship between the Spanish language and Spanish culture is highlighted through art, music, and activities from the Hispanic world.</p>
Spanish 3	<p>This course is designed with third-year learners in mind. It builds upon knowledge gained in Spanish 1 and 2 as a continuation and recycling of knowledge acquired in these previous years adding new vocabulary, structures and expressions. It introduces students to Spanish with lots of practice, visuals, and interactive activities. By integrating all four of the language skills (reading, speaking, listening, and writing) from the beginning, students are better prepared to become proficient speakers of the language. Students learn useful phrases and vocabulary and practice speaking in increasingly sophisticated ways. Unit vocabulary themes include health, transportation, art and social changes. Students will be expected to expand their vocabulary range to include more sophisticated terms, use advanced language expressions, verb tenses and grammatical concepts such as the imperfect and the subjunctive mood. The goal of Spanish 3 is to provide students with the opportunity to acquire a more advanced level of communication at a beneficial lower pace. In addition to grammar and vocabulary, students learn about Hispanic cultures and are encouraged to think critically with essential questions. The relationship between the Spanish language and Spanish culture is highlighted through art, music, and activities from the Hispanic world.</p>
Spanish 3 Honors	<p>This is an advanced Spanish course designed to prepare students for the demands of the pre-AP and AP language courses. In this rigorous course, students will be required to learn and use advanced vocabulary and idiomatic expressions. We will review major grammatical structures in an effort to master each use. For this, regular practice at home will be expected. Great emphasis will be placed on speaking with fluency, grammatical correctness, and rich vocabulary. Several writing assignments will be required at home to practice formal and informal writing. Class will be</p>

	<p>conducted in Spanish and students are required to use Spanish in the classroom. Out of class reading, written and oral assignments will be required. Those will focus on relevant literary, cultural, artistic, and historical topics to practice the language at a more sophisticated level.</p>
Spanish 4	<p>This is a fourth-year Spanish course designed to help students maintain and strengthen their proficiency and interest in their chosen world language. This also prepares students for success in future university language courses. More emphasis is placed on understanding the target culture, with students frequently preparing and presenting cultural presentations. Emphasis is placed on speaking with fluency, grammatical correctness, and rich vocabulary. Several writing assignments will be required at home to practice formal and informal writing. Spanish is the main mode of communication in the classroom. Out of class reading, written and oral assignments will be required. Those will focus on relevant literary, cultural, artistic, and historical topics to practice the language at a more sophisticated level.</p>
AP Spanish	<p>This is an advanced Spanish course designed to prepare students to take and pass the AP Spanish exam at the end of the year. In this rigorous course, students will be required to learn and use advanced vocabulary and idiomatic expressions. We will review major grammatical structures in an effort to master each use. For this, regular practice at home will be expected. Great emphasis will be placed on speaking with fluency, grammatical correctness, and rich vocabulary. Several writing assignments will be required to practice formal and informal writing. Class will be conducted in Spanish and students are required to use Spanish in the classroom. Out of class reading, written and oral assignments will be required. Those will focus on relevant literary, cultural, artistic, and historical topics to practice the language at a more sophisticated level.</p>
Latin 4	<p>This elective course is an intensive Latin grammar course that will prepare students for a standardized assessment of Latin competency (National Latin Exam). Students will read advanced Latin readings in addition to gaining a thorough understanding of Latin grammar. Students in this class commit to a rigorous schedule of memorization and testing. Cultural and mythological topics will be tied to the readings in class. Students are expected to have mastered the concepts and vocabulary of Latin 1, 2, and 3 in order to continue into Latin 4. All students are required to obtain permission from their Latin teacher before starting this class. Interested students should bear in mind that this course will NOT fulfill the World Languages graduation requirement. Students must take three years in Upper School of a modern language (either French, Spanish, or Mandarin Chinese).</p>

Physical Education

The physical education program at Waterford seeks to improve each student's physical health through a safe, diversified program that emphasizes health and fitness as life-long goals. The program also highlights the important role that athletics plays in a student's experience. At Waterford, athletics is recognized as a commitment that offers unique learning experiences and, as such, plays a complementary role to a student's intellectual growth. The lasting success of Waterford athletics is best measured by the kind of person, not just the kind of athlete,

that it produces. The coaches at Waterford guide the process as they teach students to think critically and analyze intelligently, using skills that are as useful on the field as they are in the laboratory. Waterford's main goal is to produce athletes who will be successful both on and off the field, athletes who understand that the lessons that they learned about the pursuit of excellence are applicable even after the final whistle.



Middle School

PE: VI	This class is designed to encourage an appreciation and interest in a wide variety of physical activities, including games, sports, recreation, team building and leisure activities. It challenges students to develop and maintain physical fitness to the fullest maximum capabilities, and to begin teaching them the basics of many different team and individual sports. Students focus on the development of appropriate social skills as they work together in class.
PE: MS Fitness	This class will incorporate all components of physical fitness to give students a better understanding of their personal physical health. Students will rotate through activities and workouts throughout the term. The class will incorporate, from a beginning standpoint, resistance training, step aerobics, cardiovascular/endurance training, relaxation techniques, circuit training, beginning plyometric training, flexibility, and basic strength training program philosophies. This class is to assist students to become more physically active while gaining a better understanding as to how class activities can be beneficial to their health.
PE: MS Wellness	The Wellness Workshops have been created to help each student make informed, confident decisions on how to be healthy, confident, safe and happy as they begin their adolescent years. These workshops will cover a wide variety of topics such as nutrition, sleep, exercise, body image, mental health, bullying, online safety, healthy relationships etc. Each Class VII student will be enrolled in the workshops during ONE of their terms of PE. During that term, the students will be excused from their PE Class once a week to participate in the 10 workshops. The workshops are an ungraded class, but

	will be of great assistance as they complete Middle School and prepare for Upper School.
PE: Class VII Outdoor	This Outdoor Class allows Class VII students to learn foundational outdoor skills through a variety of activities. Principles of mountaineering, navigation, rock climbing and wilderness first aid are all potential aspects of the curriculum. Teamwork, leadership, problem-solving, and self-sufficiency are key skills that are discussed and developed. Students can expect to participate in a number of games on campus as well as experience a few short field trips during class time.
PE: Class VIII Outdoor	Class VIII Outdoor introduces students to the natural wonders of Utah through hiking, rock climbing, and Leave No Trace principles. It boosts students' self-confidence as they overcome challenges as an individual and as part of a team. They come away from the course with a wealth of outdoor skills, with a heightened appreciation for the beauty that surrounds them, and with a greater understanding of themselves. Students will participate in activities both on and off campus, including one weekly afternoon session which enables the class to explore the greater Wasatch environment until approximately 6:00 p.m. (Fee)

Upper School

PE: US Aerobics	This class is occasionally offered to Upper School students as a PE offering. When it is offered, it is open to enrollment for all students class IX - XII. In this class Aerobic principles are taught and practiced, including target heart rate, proper stretching techniques, and basic muscle identification. The class covers floor and step aerobics, muscle toning, and circuit training (implementing floor, step, and muscle toning). Periodically, the students engage in a "relaxation day" where they lie down and relax their bodies and minds while listening to and responding to cues.
PE: US Indoor Soccer	The indoor soccer class is open to all interested students, and soccer players alike.. Current US soccer team players will gain a new arena to work on their skills during the Winter months. The use of the walls and the high scoring nature of the indoor game is enjoyable for the new and experienced. Basic skills will be reviewed but the emphasis will be on playing the game. All those excited about playing soccer for an entire term will have found a place in this class.
PE: US Sand Volleyball	This term length course is designed to accommodate both the beginner and advanced Volleyball players. Members of the Volleyball team can use this class as an opportunity to develop their already existing skills and teach the game to others, while casual and beginner Volleyball players will experience an uplifting and encouraging atmosphere where they can learn the game, and enjoy playing Volleyball with their classmates. Sand Volleyball will be played indoors on our East Gym courts.
PE: US Team Sports	The US Team Sports class is designed to give our students an opportunity to participate, as teams, in a wide variety of different sports. The class will not only provide a good opportunity for the students to be active and healthy, but will serve as an opportunity for students to build friendships and take a healthy break from their busy academic schedule. The following team sports are examples of what may be taught during this class: ultimate frisbee, flag football, basketball, volleyball, team handball, soccer, pickleball, kickball, frisbee-golf and baseball. Other sports and activities will also be

	considered.
PE: US Ultimate Frisbee	Ultimate, is a fast-paced game played with a 175g disc. It combines elements of soccer, football and basketball. Everyone is a quarterback and everyone is a receiver. It is a high-energy, non-contact sport that requires a combination of agility, speed and throwing skill to play. Teams consist of seven players on the field at a time playing on a field similar to a football field. The object of the game is for a team to pass the disc from player to player, catch the disc in their end zone thereby scoring a point. The availability of this class will be contingent upon an enrollment that will sustain our ability to play team games.
PE: US Strength & Conditioning	This class focuses on the fundamentals of personal fitness and resistance training techniques. Students are given information which helps them write their own program to be used through the term. Students are tested at the beginning and end of the term for their personal fitness levels to measure their progress. Some class periods are spent with the students working with their personal programs, while others will require time doing group workouts, circuit training and other fitness room activities to explore a variety of exercises and conditioning techniques.
PE: US Outdoor	The Wasatch Course introduces students to the natural wonders of Utah through hiking, rock climbing, and Leave No Trace principles. At the same time, it boosts students' self-confidence as they overcome challenges as an individual and as part of a team. They come away from the course with a wealth of outdoor skills, with a heightened appreciation for the beauty that surrounds them, and with a greater understanding of themselves. Students are expected to commit to the weekly afternoon session, which enables the class to explore the greater Wasatch environment until approximately 6:00 p.m. (Fee)
PE: US Yoga	Waterford students are faced with many academic and extracurricular demands. These students function in a fast-paced, rapidly changing, electronic world. Yoga can be a source of balance, well being and rejuvenation. Ashtanga Yoga is an approach directed toward growing, evolving individuals -- an approach that focuses on the moment yet is responsive to our ever-changing bodies and minds. Through the practice of Ashtanga Yoga students will learn to improve focus and awareness regarding breath control, concentration, postures, key muscles, and experience an enlightening level of self observation.
PE: US Healthy Living	All Upper School students will need to complete this term length course before the conclusion of the Class X year, and before they enroll in any other non-team sport PE Classes. This class is designed to inform and prepare our students to navigate the challenges of adolescence and to provide them with the skills needed to make assertive, confident decisions in regard to their physical and mental health throughout their lives. The class will include units on Healthy Bodies, Healthy Minds, Healthy Relationships and Substance Abuse. Topics will include Nutrition, Sleep, Exercise, Mental Health, Teen Suicide and Self Harm, Body Image, Growth Mindset, Consent, Bullying, Technology, Sexual Behavior, Alcohol, Illegal Drugs, Vaping, and other important topics that may arise. While students will be asked to complete several in-class projects and assignments, students will not be required to complete any significant out of class homework or assessments.

<p>PE: US Life Skills</p>	<p>Life Skills is a seminar-style class offered to class XI and XII students one term each school year. Students will determine the main focus throughout the term based on a list of provided topics. These topics will continue conversation and expand on many of the topics covered in our Healthy Living course. Life skills will help students gain a deeper understanding of skills for intrapersonal connections, healthy relationships, and other areas students will find beneficial as they navigate their personal lives. Students will be asked to complete in-class research, a project, and assignments but will not be required to complete any significant out of class homework or assessments.</p>
<p>PE: US Sports Medicine</p>	<p>This course is a term long class offered once a school year to Class XI and Class XII students. This course provides an opportunity for the study and application of the components of sports medicine and exercise science. The topics introduced include but are not limited to: sports medicine related careers, prevention of athletic injuries, recognition, evaluation, and immediate care of athletic injuries, rehabilitation and management skills, taping and wrapping techniques, first aid/CPR/AED, and emergency procedures. While students will be asked to complete several in-class projects and assignments, students will not be required to complete any significant out of class homework or assessments.</p>



Athletics

Middle School

Fall Term Sports

<p>Team: MS Boys' Lacrosse</p>	<p>The Waterford Middle School Lacrosse Team participates through the Intermountain Lacrosse league and is open for all Class VII and Class VIII Students, although other Waterford teams also exist for our younger students. The MS Lacrosse Team will play in both the Fall and Spring Seasons. Practices will be held after school 2-3 times a week. The school may provide the team equipment (goals, balls, etc), but players will need to gather their own individual equipment (stick, helmet, gloves, etc). (Fees)</p>
<p>Team: MS Boys' Soccer</p>	<p>The Waterford Middle School Soccer Teams participate in the Wasatch Athletic Conference. The school provides uniforms, coaches, and some equipment. Teams set try out dates and may make cuts. Students who make the teams are asked to prioritize all practices and games. Practice times are during school and game times are after school. The season goes from early September to mid October. Students will remain enrolled in the E Block class until the end of the term, even after the season is complete. There will typically be 1, or sometimes, 2 games a week. Families will need to provide transportation to and from games. (Fee)</p>

Team: MS Girls' Volleyball	The Waterford Middle School Volleyball Teams participate in the Wasatch Athletic Conference. The school provides uniforms, coaches, and some equipment. Teams set try out dates and may make cuts. Students who make the teams are asked to prioritize all practices and games. Practice times are during school and game times are after school. The season goes from mid-September to early-November. Students will remain enrolled in the F Block class until the end of the term, even after the season is complete. There will typically be 1, or sometimes, 2 games a week. Families will need to provide transportation to and from games. (Fee)
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Winter Term Sports

Team: MS Boys' Basketball	The Waterford Middle School Basketball Teams participate in the Wasatch Athletic Conference. The school provides uniforms, coaches, and some equipment. Teams set try out dates and may make cuts. Students who make the teams are asked to prioritize all practices and games. Practice times are during school and game times are after school. Practices will happen throughout Winter Term, but the games will not be played until AFTER Winter Break. Even though the games do not happen until after the break, the team will use their class time at the beginning of the term to practice and prepare for the season. There are typically 1-2 evening games a week once the games start. Families will need to provide transportation to and from games. (Fee)
Team: MS Girls' Basketball	The Waterford Middle School Basketball Teams participate in the Wasatch Athletic Conference. The school provides uniforms, coaches, and some equipment. Teams set try out dates and may make cuts. Students who make the teams are asked to prioritize all practices and games. Practice times are during school and game times are after school. The season begins very early in the season, our first games will be in early November, and the season will wrap up before the Christmas Break. Students will remain enrolled in the F Block class until the end of the term, even after the games are complete. There will typically be 1-2 evening games during the week. Families will need to provide transportation to and from games. (Fee)

Spring Term Sports

Team: MS Boys' Lacrosse	The Waterford Middle School Lacrosse Team participates through the Intermountain Lacrosse league and is open for all Class VII and Class VIII Students, although other Waterford teams also exist for our younger students. The MS Lacrosse Team will play in both the Fall and Spring Seasons. Practices will be held after school 2-3 times a week. The school may provide the team equipment (goals, balls, etc), but players will need to gather their own individual equipment (stick, helmet, gloves, etc). (Fees)
Team: MS Cross Country	The Waterford Middle School Cross Country Team participates in the Wasatch Athletic Conference. The school provides uniforms, coaches, and some equipment. Teams set try out dates and may make cuts. Students who make the teams are asked to prioritize all practices and meets. Practice times for Cross Country will be during school, but the meets will be after school. The season goes from early March to early May. Waterford Cross Country is for both girls and boys. Families will need to provide transportation to and from games (Fee)

Team: MS Girls' Soccer	<p>The Waterford Middle School Soccer Teams participate in the Wasatch Athletic Conference. The school provides uniforms, coaches, and some equipment. Teams set try out dates and may make cuts. Students who make the teams are asked to prioritize all practices and games. Practice times are during school and game times are after school. The season goes from mid-March to mid-May. Students will remain enrolled in the F Block class until the end of the term, even after the season is complete.</p> <p>There will typically be 1, or sometimes, 2 games a week. Families will need to provide transportation to and from games. (Fee)</p>
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Upper School

Fall Term Sports

Team: Cross Country	<p>The Waterford Cross Country team will compete in the Fall Season. Men and women will compete in separate races, but they will train together 4-5 times a week during their class block and sometimes into after school hours. The teams compete in 2A classification through the Utah High School Activities Association. Transportation, uniforms, equipment, and coaches are provided by the school. Teams set try-out dates and may make cuts. Students who make the team are required to attend all practices and games, while maintaining a passing GPA. The Fall Season begins BEFORE the beginning of the school year, and participants may be required to attend team meetings, games and practices in the month of August. (Fee)</p>
Team: Men's Crew	<p>Waterford Crew will travel to the Jordan River Canal three times a week to row, weather permitting. While at the water we will focus on building a competitive crew through smooth technique and constantly improving fitness. Our training will be structured around racing, the dates and locations of the races are still to be determined. On some days, especially on bad weather days, this team will be in the weight room and rowing on the ergs. Rowing is as tough as it is fun, so bring a sense of adventure. (Fee)</p>
Team: US Men's Golf	<p>This course is designed to provide a student with instruction in golf. Individual and/or small group instruction on the mechanics of the golf swing will be highlighted as well as various aspects of course management, golf etiquette, and the rules of the game. The top players in this class will be chosen (via a combination of qualifying rounds and coaches' decision) to represent Waterford in UHSAA 2A-Region 17 competition. Game transportation to and from Waterford will be provided by the school. The Fall Sports season will begin in August, before the start of school, so team members will need to be available for practices and matches throughout the month of August. (Fee)</p>
Team: US Women's Soccer Team	<p>The Waterford Women's Soccer Team competes in the UHSAA Class 2A division, Region 17 competition against schools located throughout northern and central Utah. Game transportation to and from Waterford will be provided by the school. The school will offer both Varsity and sub-Varsity playing opportunities. Upper School soccer will concentrate on the development of basic and advanced skills, teamwork, and sportsmanship. Both individual player and team playing skills will be advanced. Drills will promote both fitness and coordination and help develop a basic sense of the game which can be enjoyed as a lifetime sport. The extensive league schedule allows the teams to develop camaraderie, unity, and competitiveness. The Fall Sports season will begin in August, before</p>

	the start of school, so team members will need to be available for practices and matches throughout the month of August (Fee)
Team: US Women's Tennis Team	Upper School Women's tennis concentrates on the development of basic and advanced skills, teamwork and sportsmanship. Both individual and team playing skills are advanced. Drills promote fitness and coordination and help develop a basic sense of the sport. The League schedule allows the team to develop camaraderie, unity and competitiveness. The Upper School Tennis Team competes in the 2A-Region 14 league with schools throughout northern and central Utah. Practices are held after school Monday-Friday and games are held after school and on some Saturdays. Players are required to participate in all practices and games. Tryouts are held prior to the season to determine the team. Some matches and practice may begin before the start of school, so players will need to make sure they are available for possible tryouts, practices and matches in August. Game and practice transportation to and from Waterford will be provided by the school. (Fee)
Team: US Women's Volleyball	The Upper School Women's Volleyball Team competes in the 2A-Region 17 league with schools throughout northern and central Utah. Practices are held after school Monday-Friday and games are held after school and on some Saturdays. Players are required to participate in all practices and games. Tryouts and practices will begin in early August, so families will need to commit to have their daughter available during the month of August. Game transportation to and from Waterford will be provided by the school. The school will offer both Varsity and sub-Varsity playing opportunities. (Fee)

Winter Term Sports

Team: US Men's Basketball	The Waterford Basketball teams compete in Region 17, of Division 2A through the Utah High School Activities Association. Transportation, uniforms, equipment, and coaches are provided by the school. Teams set try-out dates and may make cuts. The school will offer both Varsity and sub-Varsity playing opportunities. Students who make the team are required to attend all practices and games, including some games over the Christmas Break. The teams practice almost every day either during or after school, and play games once or twice a week. Game transportation to and from Waterford will be provided by the school. The team may also compete in tournaments and open gyms throughout the school year that players are invited and encouraged to participate in. (Fee)
Team: US Women's Basketball	The Waterford Basketball teams compete in Region 17, of Division 2A through the Utah High School Activities Association. Transportation, uniforms, equipment, and coaches are provided by the school. Teams set try-out dates and may make cuts. The school will offer both Varsity and sub-Varsity playing opportunities. Students who make the team are required to attend all practices and games, including some games over the Christmas Break. The teams practice almost every day either during or after school, and play games once or twice a week. Game transportation to and from Waterford will be provided by the school. The team may also compete in tournaments and open gyms throughout the school year that players are invited and encouraged to participate in. (Fee)

Spring Term Sports

Team: Women's Crew	Waterford Crew will travel to the Jordan River Canal three times a week to row, weather permitting. While at the water we will focus on building a competitive crew through smooth technique and constantly improving fitness. Our training will be structured around racing, the dates and locations of the races are still to be determined. On some days, especially on bad weather days, we will be in the weight room and rowing on the ergs. Rowing is as tough as it is fun, so bring a sense of adventure. (Fee)
Team: US Women's Golf	This course is designed to provide a student with instruction in golf. Individual and/or small group instruction on the mechanics of the golf swing will be highlighted as well as various aspects of course management, golf etiquette, and the rules of the game. The top players in this class will be chosen (via a combination of qualifying rounds and coaches' decision) to represent Waterford in UHSAA 2A-Region 17 competition. Game and practice transportation to and from Waterford will be provided by the school. (Fee)
Team: US Men's Lacrosse	Waterford Lacrosse is a current member of the UHSAA Lacrosse League. Practices will be held during and after school. Practices or games will be held 4-5 times per week, and players are expected to attend all practices and games, and will need to provide their own equipment. Game transportation to and from Waterford will be provided by the school. Players will need to be prepared to report for the first week of practice during the second week of Spring Break. Lacrosse provides the students a chance to play a full contact sport. This team will concentrate on development of each player emphasizing basic lacrosse skills, teamwork, sportsmanship and an understanding of the rules of the game. (Fee)
Team: US Women's Lacrosse	Waterford Lacrosse is a current member of the UHSAA Lacrosse League. Practices will be held during and after school. Practices or games will be held 4-5 times per week, and players are expected to attend all practices and games, and will need to provide their own equipment. Game transportation to and from Waterford will be provided by the school. Players will need to be prepared to report for the first week of practice during the second week of Spring Break. This team will concentrate on development of each player emphasizing basic lacrosse skills, teamwork, sportsmanship and an understanding of the rules of the game. (Fee)
Team: US Men's Soccer	The Waterford Men's Soccer Team competes in the UHSAA Class 2A division, Region 17 against schools located throughout northern and central Utah. Game transportation to and from Waterford will be provided by the school. The school will offer both Varsity and sub-Varsity playing opportunities. Players will need to be prepared to report for the first week of practice during the second week of Spring Break. Upper School soccer will concentrate on the development of basic and advanced skills, teamwork, and sportsmanship. Both individual player and team playing skills will be advanced. Drills will promote both fitness and coordination and help develop a basic sense of the game which can be enjoyed as a lifetime sport. The extensive league schedule allows the teams to develop camaraderie, unity, and competitiveness. (Fee)

Team: US Men's Tennis	Upper School tennis concentrates on the development of basic and advanced skills, teamwork and sportsmanship. Both individual and team playing skills are advanced. Drills promote fitness and coordination and help develop a basic sense of the sport. The League schedule allows the team to develop camaraderie, unity and competitiveness. The Upper School Tennis Team competes in the 2A-Region 17 league with schools throughout northern and central Utah. Practices are held after school Monday-Friday and games are held after school and on some Saturdays. Players are required to participate in all practices and games. Tryouts are held prior to the season to determine the team. Game transportation to and from Waterford will be provided by the school . (Fee)
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Fine Arts at Waterford

Waterford's robust fine arts program is unique among liberal arts schools. For us, the arts are not merely an extra benefit, but an essential part of the overall experience. Throughout middle and upper school, students have daily contact with the arts through classes, performances, and showings. In upper school, students choose a two year track of a visual art, and a two year track of a performing art. These classes offer learning experiences which elucidate the often intangible ideals of a liberal arts education.

The pandemic brought us a necessary tidiness that has not always been conducive to a creative environment. It has been gratifying to watch the way our artist-teachers have adapted and innovated to keep our programs thriving. We now look forward with optimism to a return to something a little more human and, yes, messy: the moving body, the drop of paint, the voice that is free, and—the thing which gives art life—the breath of an audience.

–Javen Tanner, Dean of Arts





Dance

The Dance Department’s Mission is to inspire dance artists and movement thinkers. We foster growth of our artform through study, practice, improvisation, and performance. We strive to maintain a caring and challenging environment that allows for learning and individual expression.

Middle School

Dance: VI	Dance VI is an introduction to Ballet, Modern, and Jazz dance techniques. In this course, students will learn vocabulary, technical skills, choreography, and dance history. Students will also have the opportunity to explore their own creative ideas through dance composition. Dance is a performing art and the students will have the opportunity to participate in the Winter Term’s Dance production, and the Spring Term’s Middle School Choreography Presentation. Learning various dance techniques and performing will help further the creative side of each student as they broaden their knowledge of steps.
Dance: VII/VIII	Dance VII/VIII course is for the beginning/intermediate dancer (expanding on the Ballet, Modern and Jazz Dance techniques learned in Dance VI) who wants to explore more technique and dance composition. It teaches the primary principles of Ballet, Modern, and Jazz dance technique vocabulary using a variety of training methods to develop proper alignment, strength, flexibility, and

	<p>coordination. Students will learn the body positions, balance, turns, locomotor skills, and choreographic skills. There will be two performance opportunities aligned with this class; students will have the opportunity to participate in the Winter Term's Dance production and the Spring Term's Middle School Choreography Presentation.</p>
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Upper School

Dance: Dance and Culture	<p>This course is open to all students, and is designed as an introduction to dance. This class explores and contextualizes dance in all its forms. This exploration takes dance from the mind to the body, from the studio to the stage, while exploring different styles, cultures and time periods. Students will be connecting the historical, technical, and cultural aspects of dance for the purpose of their own understanding, body awareness, and creative voice. We will use improvisation as a choreographic tool to deepen their connection to dance as an art form.</p> <p>Prerequisites: None.</p>
Dance: Dance Technique	<p>This course is for students with some previous dance training. To take this course you must complete 3 terms of Dance and Culture or have permission from the Dance Department Chair to be enrolled. (Prior experience will be considered.) This class continues to build on the primary principles of Ballet, Jazz and Modern dance using a variety of training methods to develop proper strength, flexibility, rhythm and coordination also expanding on body positions, balance, turns, locomotor skills, and jumps. Dance Technique will broaden the study of different dance techniques while exploring even more styles of dance within those genres. We will expand on expression and creative choreography so dancers can create their own choreographic works, building their own creative voice through dance. This class provides two performance opportunities throughout the year to build their strength and confidence on stage and off.</p> <p>Prerequisites: Three terms of Dance and Culture, or Approval from the Dance Department Chair. (Prior experience will be considered.)</p>
Dance: Performance	<p>Upper School Performance is for the Advanced dancer who has trained in Ballet (including pointe for female dancers), and Modern Dance technique. Students should get approval from the Dance Department Chair before signing up for this class and plan their schedules to accommodate this course for the full year. This class requires an after-school commitment to 4 or more classes in the Waterford Dance Academy's Advanced Ballet Technique level OR one must submit to the Dance Department Chair a committed dance class schedule from a local dance studio. Due to the technical nature of our performances, after school dance classes must include at least two ballet technique classes and one pointe class per week.</p> <p>This course is rooted in technique, but is a performance-based class. It provides students with the opportunities to perform in Fall Term's Halloween Assembly, the Winter Term's Dance production, Arts Week Assembly, and in Spring Term's Dance production. Students will be required to attend a live dance performance and write a critique and discuss dancers who are making an impact in the dance world today.</p> <p>Prerequisites: Placement in Advanced Level of Dance Academy, or Approval from Dance Department Chair</p>



Music

The goal of the Waterford music program is to teach students how to love music in all its forms, preparing them for a lifetime of enjoyment and added enrichment. The best way to develop a deep love for music is to know what musicians know, and to do what musicians do. Through detailed interaction with the art form in one of several performance ensembles, Waterford students sharpen their musical perception and sensitivity, while also building skill as musicians. Students study music history and music theory, but most importantly they perform the great music of the world as singers, instrumentalists, and composers.

Middle School

<p>Music: MS VI Chorus</p>	<p>Students explore their individual talents and potential as it relates to ensemble singing of many different styles of vocal music. Singers acquire and develop the listening, singing, reading and interpretive skills which are required of confident and successful performers. As each choir develops its own identity, students gain facility in cultivating group unity and individual responsibility.</p>
<p>Music: MS VI Orchestra</p>	<p>The students develop beginning string techniques, which include posture, bow grip, note reading, rhythm, different bow articulation and good intonation. Working together as an ensemble is very important. Often this is the student's first experience playing with a group. Listening to each other and working to blend tone and quality of sound will be the focus during the year. Private lessons</p>

	are strongly encouraged.
Music: MS VI Band	Students study techniques needed in playing brass, woodwind, and percussion instruments. Students develop fundamental playing skills such as tone production, embouchure formation, basic rudiments, and breathing. Playing ability is enhanced by learning proper grip and finger position, posture, articulation, and listening skills. Basic musicianship and literacy improve with the study of rhythms, music theory, and ensemble skills of intonation, dynamics, and blend. Private lessons are strongly encouraged.
Music: MS Orchestra	Students continue to focus on intonation and quality of sound, both as an individual and as an ensemble. String technique becomes much more challenging with the introduction of shifting, vibrato, position work and much more difficult bow technique. Emphasis is placed on ensemble playing and improving their overall musicianship. Private lessons are strongly encouraged.
Music: MS Chorus	Students explore their individual talents and potential as it relates to ensemble singing of many different styles of vocal music. Singers acquire and develop the listening, singing, reading and interpretive skills which are required of confident and successful performers. As each choir develops its own identity, students gain facility in cultivating group unity and individual responsibility.
Music: MS Band	Students enhance their abilities as instrumentalists both individually, through studying music that is both challenging and engaging, and collectively, as integral members of a large ensemble. Although a good portion of the curriculum deals with instrumental technique, the students begin shifting their attention to how their instrument fits with the ensemble as a whole. To achieve this end, special attention is given to intonation, balance, and blend. Private lessons are strongly encouraged.

Upper School

Music: US Chamber Singers	Students explore their individual talents and potential as it relates to ensemble singing of many different styles of vocal music. Singers acquire and develop the listening, singing, reading and interpretive skills which are required of confident and successful performers. There is increased emphasis on independence in part-singing, dynamic shadings, intonation, vowel coloring, balance, style, precision, blending, and performance. As each choir develops its own identity, students gain facility in cultivating group unity and personal reliability, both in character and in performance.
Music: US Troubadours	This auditioned ensemble rehearses and prepares advanced choral music for mixed voices in 4-8 parts. Repertoire is normally a cappella and explores a wide range of genres from a variety of time periods. Troubadours maintains a full performance calendar with opportunities both on and off campus such as Waterford concerts, civic performances, Waterford meetings, Solo/Ensemble festival, HS exchanges, and other opportunities as they arise. Students are accepted into Troubadours through a two-step audition process that is geared to assess musical readiness and professionalism.

<p>Music: US Jazz Ensemble</p>	<p>This course is an introduction to Jazz and related musical styles. Students participate in performance, directed listening, transcription, and analysis. Specific attention is directed into developing skills in playing with a small ensemble. Students will also explore the historical significance of Jazz and the influence it has on all succeeding forms of popular music. Audition required.</p>
<p>Music: US Orchestra</p>	<p>Students will focus on the study and performance of the core repertoire for orchestra through a variety of skills that involve listening, analysis, evaluation and performances. Performances include concerts, school assemblies and community service performances. Students will demonstrate progress in mastery of rehearsal repertoire and assignments given in sectionals through individual practice. Private lessons are strongly encouraged for all students.</p>
<p>Music: String Quartet</p>	<p>This class provides an opportunity for advanced string players to develop their ensemble skills and meet the challenge of performing in a small group. Emphasis will be placed on sight reading and listening skills. Careful consideration is given to the selection of repertoire for the various groups to ensure that each individual student's needs are met. The repertoire is carefully chosen from the Baroque, Classical and Romantic period. Depending on the various instrumentation the ensembles may be made up of duos, trios, or quartets. The chamber groups may perform several times throughout the school year at concerts and other functions in the community. Audition required.</p>
<p>Music: US Band</p>	<p>Students will continue to develop specific technique on their instruments while primarily focusing on their role as a member of the band as a whole. In this ensemble students will be challenged with addressing how to balance, blend, and tune across a wide range of brass, woodwind, and percussion instruments and timbres. Students will continue to develop a variety of skills involving music theory, listening, and analysis while studying music from the core repertoire for Band. Private lessons are strongly encouraged.</p>

Theater

In his *Biographia Literaria*, Samuel Taylor Coleridge described an essential element of the artistic process using the Latin phrase "laxis effertur habenis," meaning "carried on with slackened reins."

The idea is that the artist must both master the technical side of the art and learn to open emotionally, physically and intellectually to creative inspiration. The technical elements are the reins, and when they are in

place, the artist must trust the work enough to be able to slacken those reins and let creativity do the driving. This is a crucial step in the creative process because, ironically, the final impediment to creative inspiration is often the technique or craft. In class we say, "You have to know your stuff, and then you have to be able to let go of your stuff." All Waterford theater classes have this philosophy at their core.



Middle School

Theater: VIII
Introduction to
Theater

In this class we will explore the history and tradition of the theater and take a holistic look at the roles within a theater production. We will survey the Upper School core curriculum, which includes acting fundamentals, voice production technique, and mask work as well as learning about the roles and responsibilities of a stage manager. Much of the focus will be on the cultivation of vulnerability. In Middle School, students are rapidly building walls to protect themselves in what can often be a hostile emotional environment. These walls cut off connection to emotions and creativity, and once they are up, it can be difficult to break through them. Throughout the term, students will participate in exercises that will help them break through these walls. When the walls are down, the actor is in a state of vulnerability, and from there is able to access creative potential.

Upper School

Theater: Movement I	This is the first of the core theater classes. We begin exploring physical expression by using Jacques Lecoq's Neutral Mask technique. We use the Neutral Mask to find Neutral Position in the body--a position free of excess tension. We also use the Alexander Technique to help identify and let go of excess tension. We then move on to the Blank Mask, which has no expression and no place from which to speak. It takes away the actor's facial expressions and voice, forcing him or her to express with the body. We will use a variation on Michael Chekhov's Psychological Gesture to help the students learn to "think" with the body. From Neutral Position, the actor then learns to tell stories and enact scenes using the Blank Mask and essential expressive movement. As the actor learns to commit fully to physical expression, the desired emotions and characterizations appear on the Blank Mask.
Theater: Movement II	The second year begins with a return to body work. We will start with the Larval Mask to help the students transition from Neutral and Blank Masks to Character Mask. The Character Mask covers one half or three quarters of the face, allowing the actor to speak. The Character Mask comes with an expression, and the actor studies that expression and considers what kind of body and voice belong to the Character. We will use traditional Commedia dell'Arte masks, studying stock characters, scenarios, and lazzi. In this class we delve deeper into the idea that vulnerability and emotion are connected to the body. We will study the clown as the most vulnerable of characters.
Theater: Voice I	In the second of the core classes we focus on the voice. The students will learn proper voice production techniques based on the ideas of Kristin Linklater. Connected to their Linklater work, they will continue to work with the Alexander Technique, to which they were introduced in Movement 1. They will also learn proper articulation via the Standard American Stage Dialect, and how to transcribe a monologue into that dialect using the International Phonetic Alphabet. They will learn to use inflections and heroic builds to get the most out of heightened language. The students will perform monologues using the vocal tools acquired in this class.
Theater: Voice II	In this class we will continue our use of the International Phonetic Alphabet to describe sounds used in stage dialects other than Standard American. We will learn Standard British (Received Pronunciation) and western Irish, since these two dialects are so common in the theater today. Students will perform scenes and/or monologues in these dialects. Prerequisite: Voice I.
Theater: Acting I	Building on the foundation of body and voice work, we move into scripted scene work. This class explores Stanislavsky's fundamentals of acting, focusing on the objective and the tactic. The students learn to articulate the objective in active terms, while manifesting the objective with both verb and image tactics. Various exercises are used to help the students break through emotional and physical barriers, and perform in a state of vulnerability. Scenes are selected from modern and contemporary American realism plays.
Theater: Acting II	In this class we will continue our intensive objective and tactic based technique, along with a focused emphasis on vulnerability, so that the technical can give way to the creative. We will study

	scenes from the plays of Anton Chekhov. Prerequisite: Acting I.
Theater: Acting III Shakespeare	In this advanced acting class we will study classical acting techniques, focusing on the theater of Shakespeare. Students will learn to apply the Objective-based acting technique to Shakespeare's plays. They will incorporate the vocal and physical work explored in the core classes. They will learn to scan verse, apply heroic builds and inflections, analyze Shakespeare's heightened language, and use rhythm and sound to enrich the creation of a character. Students will also study Shakespeare's life and plays. Prerequisites: Voice I, Acting I, and Acting II.
Theater: Dramatic Theory	In this class we begin with a discussion of the origins of drama. We read Plato's ideas on mimetic art from his "Republic," and his ideas on acting in his "Ion." We look at what Shakespeare wrote about theater and acting through the character of Hamlet. We discuss how theater fits into the tradition of the Liberal Arts, examining free expression, political hegemony and propaganda, and connection to ritual.
Theater: Dramatic Literature	After a term of Dramatic Theory, we shift to reading the great plays of the theatrical canon. We discuss acting styles, writing styles, and theatrical spaces, all in the context of history and theory. Each term may have a different theme (i.e. Ancient Greek Drama, Modern Drama, Irish Drama, Verse Drama, etc.).

Visual Arts



Two major goals guide the visual arts department. The first is the development of technical skill. Each course offers students an active experience with the materials, techniques, processes, and vocabulary necessary for a solid foundational ability and understanding of visual art and design. The second is the development of personal artistic vision. The program offers exciting opportunities for beginning students to discover talents unacknowledged in the past and for advanced students to set in motion their personal artistic vision. Studio courses in design, drawing/painting, ceramics, mixed-media sculpture, photography, and art history and aesthetics seminars provide an environment of stimulating intellectual and creative inquiry.

Middle School

Art VI: Art Survey	This year-long course introduces concepts and builds skills which serve as a foundation for more advanced art courses. Topics in design, drawing, painting, and sculpture are explored over the course of the year. The emphasis of this course is a general overview of art disciplines and techniques with themes integrating components of art history, criticism, aesthetics, and studio experience.
Art VII: Drawing	This course is part of a two-term series of classes that concentrates on the students' observational skills. The primary objective is for the students to improve their ability to see, and then translate that sight into drawing form. Students learn to see drawing as a process as well as a product. They learn line, shape, light and shadow, perspective, color, and composition. Students work with charcoal and graphite.

Art VII: Painting	This course is part of a two-term series of classes that concentrates on the students' observational skills. The primary objective is for the students to improve their ability to see, and then translate that sight into drawing and painting form. Students learn to see drawing and painting as a process as well as a product. They learn line, shape, light and shadow, perspective, color, and composition. Students work primarily with charcoal and oil paints.
Art VIII: Clay	This term class focuses on learning how to translate two-dimensional ideas into three-dimensional products. This becomes a very rich opportunity for each student to create tangible works of art that they first form through careful observation. Students will start by accurately drawing objects, then creating sculpture using the pinch and drape techniques, terra sigillata, and a smoke firing. Students will also construct and decorate a pottery form using the coil technique.
Art VIII: Photography	This term-long course is an introduction to the fundamental technical and aesthetic issues of photography. It provides a sound working foundation for the use of a digital camera and Adobe Lightroom software. This includes manual exposure using f/stops and shutter speeds, controlling depth of field, and the importance of the moment in photography. Photography will be examined as communication through historical, cultural, environmental and formal design issues. Students will begin to develop a critical vocabulary for visual literacy. They will generate expressive photographs and experience photography as an art form. All of this culminates in a disciplined, informed method of expression and an ability to witness the world differently.

Upper School

Studio Art Foundations: Drawing	Drawing is a foundations course that builds upon the skills taught in MS Drawing. Students will learn and apply 2D design elements (line, shape, value, pattern), principles (unity, variety, emphasis, rhythm, movement), and concepts (surface, mark, space, composition, scale, materials, intentionality) in their work. The ability to see and translate the visual world into drawing through the refining of technique will be emphasized. Students will work in charcoal to create self portraits in the 'Tronie' style.
Studio Art Foundations: 3D Design	Three-Dimensional Design seeks to expand students' understanding of design as it relates to the three dimensional world. Working in a variety of media, we will explore concepts of form, series, contour, structure and balance. We will examine the function of space, volume, mass, plane, and line. Sculptural projects will explore the solution of design problems. The main emphasis of this course is the development of thinking skills as they relate to designing three dimensional art forms.
Studio Art Foundations: Ceramics	This term course introduces basic ceramic construction and glaze methods. Design concepts of form, volume, tension and structure are explored using slab and coil methods of construction. Students learn to think three-dimensionally in the planning and construction of each project. Further explorations of decorative techniques and glaze methods complete the course. Continuing students will increase and broaden their understanding of ceramics by focusing on expanding methods of construction and decoration.

Studio Art Foundations: Oil Painting	This course is designed to expand students' proficiency and versatility with the medium of oil paint. Time will be spent with projects that explore mostly traditional approaches to imagemaking. Technical fundamentals, long-term painting processes and important contextual precedents are emphasized.
Studio Art Foundations: Sculpture	Sculpture is an elective course that introduces sculptural processes and contemporary modes of thinking about art making. In addition to classic sculptural techniques, plaster cast objects from molds made by the students will be used in mixed media compositions. The work of both historical and contemporary artists will be introduced and discussed as a framework for the students' aesthetic designs.
Studio Art Foundations: Water-Based Painting	This course is designed to expand students' proficiency and versatility with water-based materials. The range of mediums include acrylic paint, gouache, and transparent watercolors. Time will be spent with projects that explore both traditional and non-traditional approaches to image-making. Technique as well as important contextual precedents are emphasized.
Studio Art: Mixed Media Sculpture & Drawing	This mixed-media elective course will introduce alternative materials to explore varied approaches to creating both 2D and 3D works of art. Painting, drawing, collage, foam, and found objects will be some of the media used in this class. Issues of craftsmanship as well as narrative and formal content will be addressed. Students will engage in discussion of current mixed-media trends in contemporary art, and in critical discussions of their own work and that of their classmates.
Studio Art: Continuing Study Ceramics	This class focuses on mastering methods of making pottery on the potter's wheel. Skills include centering the clay, pulling cylinder forms, making bowls and lidded forms. Students will demonstrate skill centering, throwing, and trimming with successful completion of assignments. The main emphasis of this course is quality craftsmanship in construction of forms, good proportion and relationship of parts and correct use of glaze techniques. Prerequisite - Foundations Ceramics.
Studio Art: Explorations in Color	Students will investigate the visual structure of color in a series of paintings and collages. Students will employ varied materials and processes to achieve both a physical and conceptual mastery of color as it is applied in painting, illustration, and design disciplines. We will also look at the work of important painters and their handling of color.
Studio Art: Printmaking	This is a term long elective class that gives students the opportunity to explore basic printmaking techniques. Students will learn a wide variety of monotype techniques using the intaglio press. They will also be introduced to relief printmaking through linoleum cuts, woodcuts, or found objects. Large and small-scale prints are produced.
Studio Art: Continuing Study Sculpture	Continuing Sculpture will give students the opportunity to study historical and contemporary sculpture with a special emphasis on artists who make work with a nature and environmental theme. Students will have both teacher and student directed assignments including figurative, abstract, and conceptual themes. Students will have the opportunity to work in multiple mediums including but not limited to clay, plaster, chip board, wire, paper mache, found material and natural materials.

	Prerequisite - Foundations Sculpture
Studio Art: Sewing and Textile Design	Students will learn how to use a sewing machine, and learn how to transfer patterns to paper and then to fabric. During this term long course students will follow patterns to make items of clothing, and may also design their own patterns. Qualities and uses of various textiles will be explored in a Design framework.
Studio Art: Architectural Drafting	During this term long course students will learn how to use drafting tools and how to design and draw their own floor plans. They will draw two floor plans (Residential or Commercial), along with elevations, electrical plans, and door and window schedules. In a subsequent term students may enroll in Architectural Modeling and build a model of their own design.
Studio Art: Architectural Modeling	This term long course will explore various model making materials, and following plans they conceived in their Arch. Drafting class. Students will build a scale model of their own design. Tools, materials, and techniques of Architectural and Industrial Design model making will be explored, Students will create maquettes during stages of the design process. Prerequisite - Architectural Drafting.
Studio Art: AP Drawing & Painting (Class XI)	This is the first course in a two-year program that prepares students for the Advanced Placement Portfolio in Studio Art. It allows motivated students to do college-level work and be able to explore a variety of art media and styles. Topics in drawing and painting are studied. Students will begin to take on greater responsibility for the creative thinking that goes into the process of making art. Throughout the course students will look at a variety of artwork, focusing both on traditional and contemporary art, and participating in discussion and assignments that put visual art skill development into a larger context. Prerequisite - completion of Foundations studio art courses, or permission of instructor.
Studio Art: AP Drawing & Painting (Class XII)	This is the second course in a two-year program that prepares students for the Advanced Placement Portfolio in Studio Art. It allows motivated students to do college-level work and be able to explore a variety of art media and styles. Topics in drawing and painting are studied. Students will begin to take on greater responsibility for the creative thinking that goes into the process of making art. Throughout the course students will look at a variety of artwork, focusing both on traditional and contemporary art, and participating in discussion and assignments that put visual art skill development into a larger context.
Studio Art: AP 3D Design (Ceramics & Sculpture)	This is a two-year program that prepares students for the Advanced Placement Portfolio in 3D Design. Students study the world of sculptural and functional design exploring a variety of production methods and styles. The course provides opportunities for students to practice and develop artistic skills. Individual investigations will be developed and revised through practice, experimentation and reflection. Discussions on creativity and curiosity help guide imagination and spark unique ideas. Prerequisite - completion of Foundations studio art courses, or permission of instructor.

Photography Foundations: B&W Darkroom 1	This course is an introduction to traditional, film-based black & white photography, including 35mm camera operation, film processing, and photographic printmaking. Photography, like many art forms, can be divided into two parts: process and product. Process is the act of making images, and processing and printing the negatives or image files. Product is the final image offered to the viewer for examination and discussion. Assignments relate to the development of basic skills necessary in all types of photography (process). Students will also begin to look and think photographically. While the emphasis of this course is on the technical aspects of photography, composition and content will be discussed and evaluated as well (product).
Photography Foundations: B&W Darkroom 2	This course continues the introduction to traditional, film-based black & white photography, including 35mm camera operation, film processing, and photographic printmaking. Students will continue to hone their technical skills, but the goal is that as they achieve greater mastery, they are able to pay more attention to the visual and creative/expressive aspects of their work. Prerequisite - B&W Darkroom I
Photography Foundations: Color Digital 1	Using digital cameras, students will learn to see in color. They will gain a better understanding of color relationships, color as design elements, and the overall artistic and aesthetic uses of color photography. Adobe Lightroom and Photoshop software will be used, with detailed discussions of archiving, process and workflow, file management, image manipulation, and printing. Applications of color photography, historical, contemporary, and commercial and fine art will all be explored. Students will improve their photographic vision and knowledge of color theory and proficiency with digital cameras and software. Advanced techniques covered will include color balance, localized color correction, burning and dodging, and selective hue and saturation control, use of curves and color spaces. Students will view work by master photographers and develop an understanding for the nuance and possibilities of contemporary color digital process and materials.
Photography Foundations: Color Digital 2	This course is an extension of what we began in Digital I. Students will improve their color aesthetic. They will continue to explore color relationships, the strength of proper design and composition and the overall art of color photography. Adobe Lightroom and Photoshop software will be used, with detailed discussions of archiving, process and workflow, file management, image manipulation, and printing. Applications of color photography, historical, contemporary, and commercial and fine art will all be explored. Students will improve their proficiency with digital cameras and software, in particular Photoshop. Prerequisite - Color Digital I
Photography Foundations: History & Aesthetics	This course is designed to build an understanding of some of the most important movements and individuals in the history of this young art form. The ideas and images that are explored in this class may become part of the way students think about their own photography. Studying history is a vital experience when students can apply aspects of what they learn to their own creative work. We will look briefly at the early history of photography in the mid-19th century, but most of our attention will be focused on photographers and photographic movements from the 20th and 21st century. Simply put, we will study the people that shaped the aesthetics and approach of today's photographers.

<p>Photography Foundations: Alternative Processes</p>	<p>This is a hybrid-process class that combines some of the newest photographic technology with some of the oldest. Images will be captured with digital cameras, manipulated using Adobe Lightroom, and then output as negatives using inkjet printers. These negatives will then be contact-printed using historical photographic processes such as Cyanotype and Van Dyke Brown. Prerequisite - three terms of photography foundations or permission of instructor.</p>
<p>Photography Foundations: Video Art</p>	<p>This course is an introduction to the use of the moving image as an expressive tool for art-making. Students will consider the multitude of expressive forms that artists using film and video have pursued. We will explore how the field of video/film art differs from more traditional uses of the moving image (such as narrative or documentary film). We will also seek an understanding of the relationship between still photography and the moving image -- these two forms are similar in so many ways, and yet also radically different. The technical aspect of the class will involve capturing video with digital SLR cameras, and editing the footage in Adobe Premiere. Students will learn video and audio terminology, camera controls and camera handling, simple lighting techniques, and methods of sound capture. They will learn to use the editing software to shape their raw camera footage into a polished expressive form. Prerequisite - three terms of photography foundations or permission of instructor.</p>
<p>Photography: AP 1</p>	<p>This is the first year of a two-year Advanced Placement track designed for the serious student who is committed to developing a strong body of photographic work. Students in this course must be willing to take visual risks and determine what they are passionate about. They will be asked to produce a significant body of work reflecting their own personal styles and voices. Students entering this program have completed two years of study in the foundations of traditional and digital photography. By the end of the school year, students will complete a working version of a broad portfolio of photographic prints. In building to this point, students will be challenged with demanding creative assignments; they will also learn a number of new tools and processes, including more advanced skills in Adobe Photoshop, using studio strobe lighting, the creation of a photo book, and more. The goal of all this is twofold: first, to add variety to the images students will draw from for their broad portfolio, and second, to introduce students to a range of tools which they may draw from when creating a Sustained Investigation project in their senior year. (fee) Prerequisite - completion of six Photography Foundations courses or permission of instructor.</p>
<p>Photography: AP 2</p>	<p>For seniors this class is the culmination of all their photography study. After initial explorations of project ideas, the year will be spent building and refining an individual project (Sustained Investigation) to be submitted as part of the AP 2-D Design Portfolio in May. In addition, AP Photo 2 students will print, frame, and hang their project images for the spring Senior Show that is exhibited in the Concert Hall Gallery and the Basement Photo Gallery. (fee) Prerequisite - AP Photography 1</p>

Interdisciplinary Program

Waterford's interdisciplinary program offers elective courses to our Upper School students that break boundaries. These courses are offered to Class XII students and Class XI students who have completed their visual and performing art requirements.

Interdisciplinary courses are offered in Winter and Spring Term. They count as academic courses but do not fulfill a graduation requirement; students earn an elective credit upon successful completion of the course. Announcements about interdisciplinary course offerings for the year will be made in the middle of each fall term.

These courses are team-taught by at least two teachers from different departments. The course offerings will be different from term to term. Below are examples of the courses we have taught in this program in the past — each year offers a new opportunity!

Liberal Arts for A Well Lived Life: *Mathematics for Human Flourishing* Across Disciplines

Classical Mythology through the Arts

History of Rock and Roll