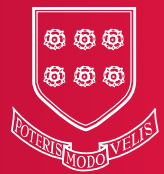




Fay
School



2026-2027 Program of Studies
Kindergarten - Grade 9

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The mission of Fay School is to nurture each child's potential through a broad, balanced, and challenging program that establishes the foundation for a meaningful life.

Fay is organized into three divisions: Primary School (Kindergarten through grade two), Lower School (grades three through six), and Upper School (grades seven through nine). Within each division, teachers work closely across grades and across disciplines to create a rich program that teaches foundational skills while also supporting critical thinking and creativity. Fay teachers believe in making learning “serious fun”—engaging, meaningful, authentic, and appropriately challenging.

Fay's traditional curriculum is balanced with an innovative focus on creativity and design in every discipline. In every grade, students participate in classes where students are challenged to identify problems, think creatively, and iterate and test solutions.

This course guide provides an overview of the goals at each Primary or Lower School grade level or within each Upper School department, as well as details about the courses themselves. Curricula at the various grade levels fits within the larger frameworks of the School while recognizing that each teacher requires the flexibility to exercise his or her judgment about what

will provide the best academic experience day to day, year to year.

Fay teachers encourage their students to strive for excellence—but it is important to remember that excellence is not perfection. Excellence at Fay means developing essential academic skills, such as reading critically, writing clearly, and understanding foundational math and science concepts. Excellence also includes enduring skills for a changing world, such as problem solving, adaptability, collaboration, and leadership. Excellence also means developing crucial life skills like communication, empathy, and creative confidence.

Fay students are high achievers. Our graduates find success at well-respected secondary schools and go on to meaningful college experiences and rewarding careers. But most importantly, Fay students learn that excellence is the process, not the product. Excellence is what happens in the day-to-day interactions with students and faculty, in a community where learning is both effortful and joyful. At Fay, excellence is a habit.

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*Please note that courses or content may change as
teachers see fit over the course of the year.*

Fay School Philosophy

As a day and boarding school for students in Kindergarten through grade nine, Fay School is a community built on five core values: Academic Excellence, Honorable Conduct, Dedicated Service, Earnest Effort, and Wellness of Mind, Body, and Spirit. While the School has grown and evolved since its founding in 1866, our central purpose has remained constant. Fay provides a broad and challenging program that empowers students to discover their talents, develop their intellectual abilities, establish essential academic skills and knowledge, and define their moral character. Earnest effort has been emphasized throughout the School's history, as enshrined in our motto, *Poteris modo velis* ("You can if you will").

Fay is dedicated to educating children to their full potential in the early childhood, elementary, and middle school years by helping them recognize and develop their intellectual, aesthetic, physical, social, and emotional capabilities. We teach our students essential, enduring skills: to read well, to write and speak clearly and coherently, to reason soundly, to question thoughtfully, and to study effectively. These skills support their ability to lead, to collaborate, to create, and to solve problems.

Love of learning brings us together, and we encourage our students to be curious, creative, and open to new ideas. Fay's safe and supportive environment allows students to take risks and encourages them to learn from mistakes within the context of high expectations regarding academic performance and ethical conduct. Our teachers know their students as individuals and help them come to know themselves. As Fay students grow, they develop an understanding and acceptance of their own challenges and strengths as learners.

Honesty, respect, responsibility, empathy, and kindness inform our conduct. The development of manners, civility, and integrity are hallmarks of our school. At every grade level, we emphasize an obligation to help ensure the well being of others. As a home for boarding students from many cultures and backgrounds throughout the United States and around the world, Fay is an inclusive community that recognizes, respects, and celebrates the full range of human diversity.

In all of these ways, Fay prepares our students to lead productive and meaningful lives that make a positive difference in the world.

Primary School Overview

The Primary School program at Fay serves children in Kindergarten through grade two. In small classes and intimate homeroom settings, students build skills in reading, writing, science, mathematics, and social studies. Students also meet with specialists each week for classes in art, music, library, and physical education.

In Kindergarten, teachers use an inquiry-based approach that incorporates the design process: Find, Define, Ideate, Make, and Evaluate. Student learning in language arts and mathematics is structured around a topic of interest that the children wish to pursue in depth. Inquiries in past years have included woodworking, pets, and musical instruments. These themes provide a foundation for student research, exploration, and hands-on projects.

In first and second grade, the structured program helps students build and solidify foundational reading, writing, and math skills as they prepare for the transition to third grade and Lower School.

The Primary School science curriculum is inquiry-based and project-based. Its practices have been adopted from the National Research Council's A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas (2012). Students who demonstrate success in primary school science courses will be able to:

- Ask questions that encourage further investigation
- Record observations and ideas using pictures, numbers, and writing
- Share observations and ideas with peers
- Compare and sort objects according to similarities and differences
- Follow oral instructions for explorations
- Recognize that scientists work in groups
- Use tools appropriately to observe, draw, and describe objects

A major focus of the Primary School program is building community. Students begin to learn about life at Fay, and they participate in traditions—such as our daily family-style lunches and weekly community meetings—that help them understand more about their roles as individuals, friends, and community members.

Kindergarten

Kindergarten Overview

The goal of the Kindergarten program is to establish a strong foundation for a successful educational journey. Classroom teachers focus on each child's literacy, numeracy, science understanding, and social-emotional development, supported by a team of expert specialists who coordinate instruction in art, music, French, Spanish, and P.E. The program also focuses on fostering children's social and emotional growth as they learn to work in a group situation away from home. Kindergarten students work cooperatively and collaboratively to solve problems, explore, play, and learn. They build independence through self-directed work and activities. Inside and outside structured play helps them learn to navigate social relationships, explore personal interests, and develop interpersonal skills. Through a close-knit classroom community, students learn to follow agreed-upon rules as they become accustomed to the routines and procedures of the school environment. A family-style lunch also provides time for students to interact with classmates and teachers, supporting the development of peer relationships, manners, and communication skills.

Mathematics

The Kindergarten mathematics program addresses five key strands: number and operations, algebraic thinking, geometry, measurement, and data analysis. In a hands-on, collaborative setting that emphasizes problem-solving and reasoning, Kindergarten students practice making connections and explain their reasoning using words, numbers, and pictures.

Students who successfully complete the Kindergarten mathematics program will be able to demonstrate knowledge in the following categories:

Number and Operations

- Apply one-to-one correspondence
- Skip counting
- Recognize, read, and form numbers
- Use manipulatives to express numbers and perform operations
- Compute simple addition and subtraction problems
- Use comparison vocabulary to compare quantities of objects

Measurement

- Use standard and non-standard tools of measurement
- Describe and compare measurable attributes of objects

Geometry

- Identify and describe basic geometric shapes
- Model shapes by building or drawing

Data Analysis & Probability

- Collect and show information in a bar graph
- Use graphs to answer simple questions

Algebraic Thinking

- Identify, create, and extend simple patterns
- Represent addition and subtraction using pictures, words, or equations

Primary School: Kindergarten

Language Arts

In Kindergarten, students begin their journey as readers and writers. They participate in a daily structured phonics program and literacy activities, which include read-alouds, group activities, hands-on projects, inquiry-based learning, and one-on-one coaching from homeroom teachers and literacy specialists. Phonics, spelling, and handwriting are a regular part of each day, and our phonemic awareness curriculum gives students the ability to identify and manipulate individual sounds in the spoken word, a key precursor to reading. Children practice writing in a range of genres, and classroom discussions prepare students for Fay's public speaking program, which begins formally in third grade.

Reading

The goal of the Kindergarten reading program is to foster a love of reading and literacy. Students are immersed in a print-rich environment, where they have ample opportunities to practice and strengthen literacy skills through read-alouds, small group work, whole group activities, hands-on projects, play, and inquiry-based learning. Phonics and phonemic awareness instruction is taught through a spiraling structured program and differentiated for each child to foster the development of sound-symbol correspondence, spelling patterns, and high frequency words. Students build reading comprehension and fluency skills through listening to stories, sequencing activities, working in small reading groups, and reading individualized books and texts leveled according to their instructional needs.

Writing

Kindergarteners begin to use written language to share their ideas. Teachers use a systematic approach to teach the development of phonics, spelling, and handwriting skills. Students practice identifying letters and their sounds, basic suffixes, blends, and digraphs, and students learn that each word contains a vowel. They also engage in activities to practice grade-level, high-frequency words. When writing, students use inventive spelling to practice segmenting words into letters and sounds, and they begin to write full sentences. Throughout the year, Kindergarteners explore various genres of writing including personal narratives, informational writing, and poetry.

Social Studies

In Kindergarten social studies, students develop an understanding of how an individual fits into the larger community in terms of geography, history, and culture. Students explore the geography of the classroom and Fay School. Additionally, students spend time learning about the history of Fay and many of its traditions, including the named buildings found on campus as well as about the yearly color team competition for the Redmond Cup. They learn that everyone has a role to play in making a group work well and that each member brings something unique to the group. Students also explore the various roles people play and the diversity of the Fay School community as they learn about celebrations and traditions in other cultures represented in the Fay School community.

Science

Kindergarten scientists discover scientific principles through inquiry, investigation, and research. They use their five senses to observe and identify different phenomena. They explore different habitats and their environmental factors. They also investigate different types of plants and learn about the life cycles of plants and animals. The Primary School's science program is based on the *National Research Council's Framework for K-12 Science Education*, and the spiraling curriculum means that students will explore these topics in greater depth in first and second grade to develop a rich and layered understanding. The children learn essential principles of observing and documenting, laying the groundwork for the work they will do in Lower and Upper School in our fully equipped science labs.

World Languages: Spanish and French

Fay's Primary School World Language program is based on the F.L.E.X. (Foreign Language Experience) approach. Fay Kindergarteners study both French and Spanish, each for half of the school year, and this schedule continues through first and second grade. For both Spanish and French, students in Kindergarten are introduced to basic greetings and daily expressions related to the classroom. They also learn descriptive adjectives, such as color, size, and feelings. They are exposed to basic vocabulary related to numbers 1-20, days of the week, body parts, shapes, and action verbs. Teachers use games, traditional Francophone and Hispanic literature, and nursery rhymes to teach and reinforce the classroom material. The classroom routine includes greetings, circle time for storytelling, play and songs, and art projects. Cultural celebrations and traditions are highlighted in the Kindergarten program, including Mexico's *Días de los Muertos* and French Impressionist art.

Music

Music classes meet twice per six-day rotation and incorporate the Kodály method, which emphasizes singing, movement, listening, and games. Students engage with simple folk songs from around the world as well as masterworks such as Prokofiev's *Peter and the Wolf* and Vivaldi's *The Four Seasons*. Students learn about the many characteristics of music, including tempo, rhythm, volume, and pitch, in preparation for learning the formal notation in grade one and instrumental playing in Lower and Upper School, where students can sing in one of our five choral groups or play in our concert bands, string ensemble, or bell choir.

Art

In Art, which meets twice per six-day rotation, children develop fine motor skills and work in a range of media that includes paint, paper, clay, and textiles. Students explore the work of past and current artists and learn foundational skills that prepare them for the host of art electives available in the Upper School. Students experience the joy of sharing and exhibiting their work in on-campus shows as well as exhibits through Youth Art Month at the Worcester Art Museum.

Creativity and Design

Creativity and Design is integrated throughout the program in Primary School. Focusing on the Design Process (Find, Define, Ideate, Make, Evaluate), students build a foundation in design vocabulary, engage in productive struggle, and collaborate with peers and teachers. Students in Kindergarten focus on “How do materials impact design?” In Kindergarten, students learn to identify different materials, describe the properties of different materials, apply their understanding of the properties of different materials to ideate solutions to a problem, and construct, test, and evaluate their solutions.

Library

In Kindergarten, children become familiar with the library through in-depth explorations of each of its various sections beginning with picture books and moving through poetry, folk tales, and fairy tales. Kindergarten students learn about the parts of a book, identifying the author and illustrator, and then practice locating the book in a particular section of the library. Kindergarten students also explore their personal interests, develop a sense of who they are as readers, and practice responsibility as they browse and select books to check out.

Physical Education

P.E. classes meet three days out of a six-day rotation. Classes focus on developing motor skills and physical fitness, with activities that emphasize balance, spatial awareness, cooperation, and sportsmanship. The children also practice basic skills including throwing, catching, and kicking in preparation for Fay’s interscholastic athletics program, which begins in fifth grade.

Wellness

The goal of the Kindergarten Wellness program is for students to learn about themselves and how they relate to others. This program provides a structured, safe, and supportive environment where students develop key social-emotional skills. Classes are led by members of the Wellness Department, meeting once a rotation. These classes focus on self-awareness, communication, and emotional regulation. Students will develop and strengthen these skills:

- Self-advocacy and independent problem-solving with peers
- Interpersonal problem-solving and effective vocabulary for resolving conflicts
- Basic social skills such as greetings, manners, and general courtesy
- Mindfulness techniques
- Identifying and expressing emotions
- Communication skills
- Self-control strategies

Grade One

Grade One Overview

The goal of grade one is to continue to foster children’s intellectual, social, and emotional growth. A major focus of the first grade curriculum is on reading and writing, and students participate in daily activities—in whole groups, in small groups, and one-on-one—to develop foundational phonetic skills and become competent readers and writers. As students become more familiar with the routines and expectations of a formal school setting, they face developmentally appropriate challenges that require them to problem solve, think critically, and work collaboratively with others. Classroom teachers encourage first graders to become more independent and self-reliant as students, and classroom activities continue to focus on building community, developing friendships, and communicating effectively with others.

Mathematics

Grade one expands upon the goals and objectives of Kindergarten mathematics with a continued focus on mathematical content and processes, including basic addition and subtraction facts, and improved estimation and problem-solving skills. Through hands-on activities and work with manipulatives, students discover patterns in numbers and develop critical thinking skills. Students also develop their mathematical thinking in the following areas: number and operations, algebraic thinking, geometry, measurement, data analysis, and probability.

Students who successfully complete the grade one mathematics program will be able to fundamental understanding of topics in the following categories:

Number and Operations

- Counting whole numbers (including skip counting)
- Adding and subtracting whole numbers
- Identifying and applying place value concepts
- Applying estimation strategies
- Understanding the relationship between number and quantity
- Representing and comparing one-half and one whole through pictures

Measurement

- Measuring using standard (centimeters and inches) and non-standard units
- Telling time to the hour and half hour
- Identifying coins and their values
- Comparing quantities of objects

Geometry

- Identifying, analyzing, and comparing two- and three-dimensional shapes
- Sorting and classifying shapes according to their attributes

Primary School: Grade One

Data Analysis & Probability

- Collecting, analyzing, and graphing data
- Discussing events related to likely and unlikely

Algebraic Thinking

- Devising mental math solutions
- Solving single- and basic multi-step problems
- Completing, analyzing, & identifying repeating and growing patterns

Language Arts

Reading

In grade one, the goal is to foster a love of reading. Through whole group lessons, small reading groups, and individual instruction, students explore concepts and participate in activities to help them become confident, independent readers. They learn basic phonetic rules, strengthen phonemic awareness skills, and bolster their ability to recognize and spell many high-frequency words. In small groups, students practice new skills and review previously learned skills by reading appropriately leveled texts. First graders also read regularly from their independent book bags, which contain literature at each child's reading level. Within these levels, students have exposure to a wide variety of fiction, nonfiction and poetry selections. Reading teachers meet regularly with each student to monitor and assess progress, focusing on decoding strategies, fluency, comprehension, and vocabulary development.

Writing

The goal of the grade one writing program is to improve students' overall communication skills. At the beginning of the year, first graders review the formation of uppercase letters and learn the lowercase letters. Next, students learn basic capitalization and punctuation rules. As these skills develop and students become more comfortable with the writing process, they practice incorporating more detail into their writing. Later in the year, students create a rubric to help them assess their work, which reminds them to check for proper capitalization and punctuation, spacing between words, correct spelling of high-frequency words, and descriptive detail. With this introduction to editing, students begin to learn the importance of reviewing and revising their writing. To improve listening skills and to cultivate an appreciation of the written word, teachers read to the children daily from a range of literature, including picture books, chapter books, nonfiction, and poetry. As part of their language arts activities, first graders also present a musical play. Over the course of the production, the children learn their lines, create the scenery, learn songs, and practice choreography. This is the students' first foray into public speaking at Fay, and it is a highlight of the year.

Students continue to build on word skills and habits of mind introduced in Kindergarten. They begin the year reviewing consonant and vowel sounds and then learn phonetic concepts such as digraphs, blends, vowel teams, and open and closed syllables. Appropriately-leveled high-frequency words enrich each student's lexicon as reading skills expand. These spelling rules are explicitly taught in sequence to the whole group and then reviewed and practiced in small groups in reading and writing.

Utilizing a spiraling phonics curriculum, first grade students can master, retain, and apply the skills to both their reading and writing assignments.

Social Studies

The first grade social studies curriculum focuses on community, geography, history, and culture. Students continue to recognize and respect diversity within communities, build interpersonal skills, develop self awareness and responsibility, and strengthen communication skills. Focusing on the geography, history and culture of the town of Southborough, students explore how Southborough became the community it is today while focusing on differences as strengths and contributing to the community. Students who successfully complete the grade one social studies program will be able to:

- Appreciate past events and historical figures of Southborough and their connection to the present day
- Identify and use basic map features focusing on the town of Southborough and the surrounding area that makes up the Metrowest region of Massachusetts

Science

The Primary School science curriculum is inquiry-based and project-based. Its practices have been adopted from the National Research Council's *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas* (2012). Students who demonstrate success in primary school science courses will be able to:

- Ask questions that encourage further investigation
- Record observations and ideas using pictures, numbers, and writing
- Share observations and ideas with peers
- Compare and sort objects according to similarities and differences
- Follow oral instructions for explorations
- Recognize that scientists work in groups
- Use tools appropriately to observe, draw, and describe objects

In grade one, students explore how humans use their senses to make observations about the natural world. In the fall, students observe local trees and compare and contrast their characteristics. During the winter term, students research penguins and learn about their adaptations. In the spring, students investigate honey bees. Using science notebooks, students record observations, make predictions, and summarize results.

World Languages

Fay's Primary School World Language program is based on the F.L.E.X. (Foreign Language Experience) approach. Students study both French and Spanish, each for half of the school year.

For both French and Spanish classes, first graders review basic colors, numbers (1-20), and simple daily expressions that can be used to communicate their needs and desires in the classroom. The curriculum focuses on high-frequency and seasonal vocabulary related to topics such as the date, weather, clothes, and family. Children learn vocabulary through hands-on activities, games, songs, nursery rhymes, poems, and age-

appropriate literature. Authentic foreign-language children's books are used to generate discussions, reinforce vocabulary, and engage the children in learning about Francophone and Hispanic cultures. The study of culture continues to play a significant part in the curriculum, and students create projects focused on specific traditions and celebrations.

Music

The music curriculum in grade one is based on the philosophy of Hungarian composer Zoltán Kodály. Through singing, movement, listening, and games, children learn about the many characteristics of music. In grade one, students review all Kindergarten concepts. New first grade skills include reading and writing basic rhythmic notation (quarter notes, quarter rests, eighth note pairs); recognizing and notating two-beat meter (including measure, bar line, double bar line, repeat sign, and simplified time signature); and reading and writing melodic notation (solfege) for so, mi, la, and do on a five-line staff. Students are also exposed to a variety of musical styles, from folk songs to masterworks.

Art

The goal of the grade one art program is to develop an appreciation for visual art as a creative means of expressing knowledge and ideas. Students learn to use and maintain high quality tools and materials. Class projects emphasize craftsmanship, and students evaluate their own work through both individual and group assessments. Students are encouraged to develop unique solutions to each assignment and develop skills at their own pace. In grade one, students are introduced to a variety of artists and artistic styles and begin to develop the vocabulary necessary to describe and interpret works of art.

Students who successfully complete the first grade art program can:

- Follow oral instructions for projects
- Use materials and tools appropriately
- Interpret project directions
- Complete class work
- Explore the use of line, shape, pattern, color and texture
- Use art terms correctly to discuss artwork or techniques

Creativity and Design

Creativity and Design is integrated throughout the program in Primary School. Focusing on the Design Process (Find, Define, Ideate, Make, Evaluate), students develop a foundational design vocabulary, engage in productive struggle, and collaborate with peers and teachers. Students in grade one focus on "How do designers build quality structures?" Students learn to identify different types of structures; describe how different materials are used to build a structure; apply their understanding of the properties of different materials and structures to ideate solutions to a problem; and construct, test, and evaluate their solutions.

Library

In their library classes, first graders explore language through books, stories, poetry, and song. Lively group read-alouds bring stories to life as students experience the feeling of connectedness

to a community of readers. First graders explore self-expression as they write poems and stories, and they participate in creative hands-on projects and art experiences in response to the books and ideas that they share. The library is not only a place where students discover the great ideas of others; it is also where they have time and space to create their own.

Physical Education

First graders have P.E. four times out of a six-day rotation. Through activities and games, students continue to develop motor skills, a sense of self in personal and general space, coordination, and cooperation with others. Teachers emphasize positive sportsmanship and leadership in all activities. Students also practice basic sports skills, such as throwing and catching, and they continue to learn that physical activity is a lifelong practice that can be fun and satisfying.

Wellness

In first grade, the goal of the wellness program is for students to learn about themselves and how they relate to others. During homeroom time, as well as during weekly scheduled Wellness classes, students address important topics such as sharing, advocating for one's needs, conflict resolution, and accepting others' differences. Teachers provide students with a structured and consistent environment in which students can develop communication, self-control, and interpersonal problem-solving skills. Students begin to practice mindfulness by identifying and talking about their feelings and by practicing self-calming techniques. First graders continue to practice:

- Sharing needs and feelings with adults when necessary
- Understanding and identifying others' feelings and responding appropriately
- Understanding the concepts of inclusion and exclusion and demonstrating a willingness to include others in activities
- Using mindfulness strategies to recognize one's own feelings and emotions and to calm one's body and mind when upset

Primary School: Grade Two

Grade Two

Grade Two Overview

In second grade, teachers continue to foster children's intellectual, social, and emotional growth. The academic program focuses on solidifying foundational skills while challenging children to think critically and creatively about their learning. Students continue to work in small groups and one-on-one for reading and mathematics, and they become increasingly responsible and independent as they work on individual and group assignments. As the oldest students in the Primary School, second graders begin to emerge as leaders and become more confident advocating for themselves in friendships and social situations. By the end of second grade, students are ready for the transition to third grade and the challenges of Lower School.

Mathematics

The goal of the second grade mathematics program is for students to become increasingly fluent in operations and problem solving. They learn to make sense of problems and persevere as they apply quantitative and abstract reasoning, use modeling to solve logic problems, and defend and describe their thinking. Through discussion and hands-on activities, the spiraling curriculum increases in complexity throughout the year.

Students who successfully complete the grade two mathematics program will be able to demonstrate a fundamental understanding of topics in the following categories:

Number and Operations

- Adding and subtracting to 20
- Applying strategies for multi-digit addition and subtraction
- Skip counting by 2s, 5s, and 10s
- Understanding the base-10 system and using multiple models to represent place value to 1000
- Comparing numbers using 'greater than' and 'less than'
- Creating and solving addition and subtraction story problems
- Showing readiness for multiplication and division
- Estimating using front-end estimates, rounding, and ballpark estimates
- Beginning understanding of equal groups and fractions
- Representing $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, and whole

Measurement

- Measuring using standard (cm, in, ft) and non-standard units and measuring to the nearest half-inch
- Telling and writing time to five-minute increments with digital and analog clocks
- Understanding coin values and making equivalent coin exchanges

Geometry

- Applying attribute rules to classify shapes
- Building and compare polygons
- Identifying and classifying 2D and 3D shapes
- Recognizing symmetry in objects and shapes
- Partitioning rectangles into same-size squares

Data Analysis & Probability

- Organizing, representing and analyzing data using bar graphs, picture graphs, and line plots
- Discussing events related to 'likely' and 'unlikely'

Algebraic Thinking

- Completing, identifying, and analyzing repeating and growing patterns
- Devising and communicating mental math solutions

Language Arts

Reading

In grade two, the language arts program fosters a love of reading and helps students develop the routines and strategies to become confident, independent readers. Second graders read a wide variety of genres and have opportunities to read independently, with a partner, and as a whole group, as well as in small groups with a teacher. In small groups, students learn and practice phonetics and decoding skills and respond to literature through teacher-led discussions and written work. This helps students to build comprehension strategies and critical thinking skills. Teachers monitor student progress through formal assessments as well as individual conferences, and our phonemic awareness curriculum strengthens students' skills in identifying and manipulating individual sounds.

Writing

In grade two, students focus on the writing process as they create their own stories, journal entries, letters, poetry, and nonfiction informational writing. Students have frequent opportunities to reflect on their writing and revise their work with regular teacher conferences. Students also build vocabulary and grammar skills, focusing on sentence structure, punctuation, and parts of speech. Second graders continue to review and practice phonics skills introduced in first grade and incorporate new ones such as split digraphs ("magic e") r-controlled vowels, diphthongs, contractions, root words, suffixes, and syllable division. High-frequency words, leveled appropriately, enrich each student's lexicon as their reading skills expand. Although students still use inventive spelling for more complex words, they are expected to apply the phonics skills they have learned in their daily work and master high-frequency words as introduced. Students continue to explore the structure of multisyllabic words and phonemic awareness as they prepare for the phonics work presented in the Lower School program.

Social Studies

In grade two social studies, students learn about the world beyond Fay School and Southborough and focus on the geography, history, and culture of Massachusetts. In preparation for the transition to Lower School and the study of the United States in grade three, students focus on the five themes of geography, review the geography of Massachusetts, and examine the history and culture of indigenous peoples and present-day inhabitants. Students answer the question, "What is the geography, history and culture of the state of Massachusetts, and how did it become the community it is today?" Students also engage in a unit on names and heritage in order to better understand the various factors that make a person who they are.

Students who successfully complete the grade two social studies program will be able to:

- Demonstrate their understanding of community
- Identify similarities and differences among individuals and groups
- Distinguish and make connections between the past and present
- Apply basic map skills and correctly use related vocabulary
- Recognize the five themes of geography: location, place; human-environmental interaction, movement, and regions
- Use research skills to gather information from nonfiction texts

Science

The Primary School science curriculum is inquiry-based and project-based. Its practices have been adopted from the National Research Council's *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas* (2012). Students

who demonstrate success in primary school science courses will be able to:

- Ask questions that encourage further investigation
- Record observations and ideas using pictures, numbers, & writing
- Share observations and ideas with peers
- Compare and sort objects according to similarities and differences
- Follow oral instructions for explorations
- Recognize that scientists work in groups as well as individually, and that scientists have to perform multiple trials for an experiment
- Use tools appropriately to observe, draw, and describe objects

In grade two, students discuss properties of matter, the human body, and seeds & plants. Building upon the skills introduced in previous years, students work independently to observe, record, evaluate, and communicate data.

World Languages: Spanish and French

Fay's Primary School World Language program is based on the F.L.E.X. (Foreign Language Experience) approach. Students study both French and Spanish, each for half of the school year.

In grade two, students continue to build upon the basic skills and knowledge acquired during their first years of language study. Students participate in considerable review, combined with more challenging, age-specific vocabulary and expressions. Specifically, second graders become familiar with the richness and diversity of the Spanish-speaking and Francophone worlds through the Fay Passport project. For each country studied, students practice vocabulary related to geographic location, the country's flag, and basic personal information. Students also learn vocabulary related to and complete projects based on the cultural traditions of the countries they study. By the end of the year, students are comfortable with a range of commonly-used vocabulary and expressions, can participate in brief dialogues, and are familiar with the cultures of many Spanish-speaking and Francophone countries. By the end of second grade, students are ready to select a single world language - French or Spanish - to study throughout their Lower School years.

Music

Fay's music curriculum is based on the philosophy of Hungarian composer Zoltán Kodály. Second graders review all grade one music concepts and learn new skills, including identification of steps and skips and leaps (intervals) in various patterns (including the so mi la so mi pattern); identification of half notes; identification of four-beat meter; identification of the tone re; identification of known solfege tones in the basic pentatonic scale; singing and speaking in canon; performing rhythmic and melodic ostinato; improvisation, identification of sixteenth notes; and learning the absolute letter names of the lines and spaces of the treble staff. Students are also exposed to a variety of musical styles from folk songs to masterworks.

Art

The goal of the grade two art program is to develop an appreciation for visual art as a creative means of expressing knowledge and ideas. Students learn to use and maintain high quality tools and materials. Class projects emphasize craftsmanship, and students evaluate their own work through individual and group assessments. Students are encouraged to develop unique solutions to each assignment and develop skills at their own pace. In grade two, students are introduced to a variety of artists and artistic styles and begin to develop the vocabulary necessary to describe and interpret works of art. Students explore art forms of various cultural groups as they are related to the social studies curriculum.

Students who successfully complete the second grade art program can:

- Follow oral instructions for projects
- Use materials and tools appropriately
- Interpret project directions
- Complete class work
- Explore the use of line, shape, pattern, color and texture
- Use art terms correctly to discuss artwork or techniques

Creativity and Design

Creativity and Design is integrated throughout the program in Primary School. Focusing on the Design Process (Find, Define, Ideate, Make, Evaluate), students build a foundation in design vocabulary, engage in productive struggle, and collaborate with peers and teachers. Students in grade two focus on "How do designers make structures move?" In grade two, students learn to identify different types of mechanisms; describe how different mechanisms are used; apply their understanding of the properties of different materials, structures, and mechanisms to ideate solutions to a problem; and construct, test, and evaluate their solutions.

Library

In their library classes, second graders explore language through books, stories, poetry, and song. Group read-alouds bring stories to life as students experience the feeling of connectedness to a community of readers. Second graders explore self-expression as they write poems and stories, and they participate in creative hands-on projects and art experiences in response to the books and ideas that they share. Second graders also begin to learn

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about the research process by accessing resources in the library. The library is not only a place where students discover the great ideas of others; it is also where they have time and space to create their own.

Physical Education

The second grade physical education program emphasizes physical activity and personal fitness. Daily lessons feature continuous movement and appropriate physical challenges. Second graders practice gross motor skills by throwing, catching, kicking, and dribbling (foot and hand) for control using a variety of objects, such as balls and balloons. Students practice striking using a variety of implements, such as short-handled paddles and bats. By the end of second grade, students can demonstrate the correct form for rolling and throwing a ball for distance as well as demonstrate more control using other motor skills.

Wellness

In Wellness class, second graders participate in discussions about feelings, emotions, socializing, and conflict resolution. Students learn how to become more aware of their feelings, use calming activities to focus their attention, and slow their bodies down. Students participate in wellness activities during homeroom time, as well as during scheduled Wellness classes with members of the Wellness Department. Students who successfully complete the grade two wellness program will be able to:

- Advocate for themselves and show self control
- Identify and communicate emotions
- Begin to decipher when adult intervention is, and is not, needed in peer conflict
- Show empathy by responding compassionately to others' struggles
- Recognize and appreciate that differences such as race, gender, ethnicity, and sexual and gender orientation make a community stronger
- Understand that people have differences of opinions and views on a variety of topics
- Use mindfulness to regulate emotional and physical response to environmental stimuli, both positive and negative

Lower School Overview

Fay's Lower School is composed of grades three through six. Lower School students participate in a structured and challenging curriculum within a program that is flexible enough to accommodate differences in skill sets, learning styles, and individual interests. Lower School students begin to develop study habits that will serve them throughout their lives. They improve their reading, writing, and reasoning skills while mastering age-appropriate content. Lower Schoolers discover that learning can be fun—and they come to understand that there is a tremendous satisfaction in putting forth one's best effort, taking on increasingly difficult challenges, becoming an independent learner, and finding the keys to personal and intellectual growth.

Lower School students are engaged in an investigative style of learning, and they learn to meet high standards and demonstrate proficiency in their studies. They are encouraged to stretch themselves and take intellectual risks, knowing they will be supported by teachers and friends in a learning environment that values academic achievement, social responsibility, and consistent effort to be one's "best self."

Grade Three

Grade Three Overview

Students enter the Lower School in grade three, and they begin the journey of understanding who they are as learners and what it means to be a successful student at Fay. Students begin each day in homeroom groupings, which are created to support the learning and personal welfare of each child. Language arts, math, and social studies learning takes place in homeroom classes, while students meet with specialists for science, world language, music, art, physical education, wellness, digital literacy, and library. Students participate in a lively academic program that includes direct instruction, class discussions, investigations, and projects. Instructional routines and practices in grade three are aligned with the developmental, cognitive, and emotional strengths and needs of each particular group of third graders.

Mathematics

The goal of Lower School mathematics is to encourage and support students as they develop number sense, computational fluency and efficiency, strategies for problem solving, and a beginning understanding of the connectedness of mathematical topics and procedures. The curriculum offers opportunities for self-discovery and exploration of concepts and personal strategies as well as exploring and understanding traditional algorithms. Students work with visual models at every level to make sense of abstract concepts.

Grade three expands upon the goals and objectives of grade two mathematics with a continued focus on the conceptual and procedural understanding of whole number operations with a concentrated study of multiplication. The curriculum encourages students to think critically, question, and analyze, asking more than a recall of basic facts. Students learn to represent and explain their thinking using pictures, numbers, and words. Students continue to develop and extend mathematical proficiency in number and operations, fractions, measurement, geometry, data analysis and probability, and algebraic thinking.

Students who successfully complete the grade three mathematics program will be able to demonstrate fundamental understanding of topics in the following categories:

Number and Operations

- Reading and writing numbers using base ten materials, number names, and expanded form
- Decomposing numbers to reason and calculate numerically
- Using and applying concrete materials to re-grouping strategies for subtraction
- Using place value concepts to perform multi-digit addition and subtraction
- Solving addition and subtraction story problems
- Connecting addition to multiplication
- Multiplying one-digit numbers
- Applying properties of operations as multiplication and division strategies (Commutative, Associative, and Distributive)
- Developing an understanding of fractions as numbers and quantities

Lower School: Grade Three

- Identifying and relating visual representations of basic fractions to division ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$)
- Representing fraction equivalents

Geometry

- Showing multiplication from a geometric perspective
- Solving real-world and mathematical problems involving perimeter and area
- Exploring geometric attributes of polygons and classifying quadrilaterals
- Applying formulas to calculate the perimeter of polygons
- Recognizing and understanding concepts of area as related to multiplication and addition

Measurement and Data Analysis

- Analyzing statistical data as represented in bar graphs, line graphs, picture graphs, line plots, and circle graphs
- Creating graphs using varied scales
- Measuring and reporting elapsed time
- Telling and writing time to the nearest minute
- Measuring to the nearest, whole, half, and quarter inch
- Measuring and comparing mass using standard units of mass

Algebraic Thinking

- Identifying, writing, and repeating growth patterns on a hundreds grid
- Connecting multiplication equations to concrete objects or images
- Demonstrating understanding of patterns and multiples

Reading

In a classroom environment rich with books, third graders read in guided and independent settings. Students read independently each day from books at their designated reading levels, choosing from a range of genres including fantasy, mystery, realistic fiction, biography, and poetry. To improve comprehension, students apply strategies that include prediction, connection, visualization, questioning, and summarizing. Teachers conduct one-on-one conferences with students to monitor individual progress and set individual goals. In teacher-guided reading groups, students read aloud, ask and answer questions, and learn how to discuss literature. Students are responsible for a number of independent reading projects throughout the year, including discussions, reading logs, journals, and small partner projects.

Writing

The Lower School writing program encourages students to develop an understanding of and appreciation for creative writing, expository writing, and poetry, and to communicate effectively through writing and speech. Students develop strategies for planning and organizing their thoughts, drafting, revising and discussing their work in student/teacher conferences, and presenting completed assignments to the class. Throughout the curriculum, students participate in process writing and grammar study, as well as direct instruction on organization, voice, word choice, sentence fluency, and conventions. The third grade word study program focuses on patterns, rules, and morphology. It lays the foundation for further success in reading and writing through lessons on parts of speech, as well as through introduction of more sophisticated vocabulary learning strategies.

Third graders are introduced to public speaking throughout the year, culminating in each student writing and preparing a speech with the support of their teachers that they present to the Lower School community.

Social Studies

Social studies in grade three focuses on the study of the geography and culture of the United States. Students study how the five themes of geography apply to the study of the United States of America and how the cultures and histories of each region are different. Students develop their understanding of the themes with studies of maps, atlases, and informational texts, as well as through a geographic study of the regions of the United States.

Students who successfully complete the grade three social studies program will be able to:

- Understand and utilize maps and globes
- Recognize the major physical features of the world, such as oceans and continents
- Read and interpret a variety of informational resources, such as charts and graphs
- Apply the Five Themes to new topics
- Show a beginning understanding of the research process

Science

The Lower School science practices have been adopted from the National Research Council's *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas* (2012) and directly build upon skills and material covered in Primary School. Students who demonstrate success in Lower School science courses will be able to:

- Ask clarifying and extending questions
- Apply the scientific process to creative real-world projects
- Create and follow a written plan for an investigation
- Understand how to gather, organize, and explain data
- Predict the outcome of an investigation and analyze the results
- Collaborate effectively to complete investigations and solve problems
- Use evidence from real-world observations to demonstrate conceptual understanding
- Communicate concepts and observations through writing and drawing

During the year, third graders engage in a study of magnetism, where they experience and learn how to articulate the properties and uses of magnets. Students use Makey Makeys to investigate and demonstrate properties of particles and electrons. During their study of ecosystems and habitats, students explore biological interdependence and the structures of living things. Students participate in a design thinking challenge related to endangered species in which they identify the current habitat of an endangered animal, assess how its habitat might change in the future, and generate three strategies to help the species thrive again. Using systems and models, students examine our solar system and learn about each planet's environment as compared to Earth.

Digital Literacy

The third grade Digital Literacy curriculum is built on the philosophy that students learn best through agency, active creation, and playful inquiry. Moving beyond basic computer operation, this course empowers students to become responsible digital citizens and innovative problem-solvers. Aligned with the ISTE Standards for Students, the year is divided into foundational, structural, and creative arcs.

In the fall, students focus on digital stewardship—mastering secure logins, understanding hardware/software ecosystems, and exploring digital empathy and safety. Mid-year, students bridge hardware and software through a robotics unit exploring the Sense-Think-Act paradigm. As the year progresses, the focus shifts to computational thinking and design. Students explore unplugged algorithms, transition into block-based coding (Scratch), and apply Fay's Four Pillars of Design in 3D digital environments (Maker's Empire). Throughout the year, students engage in a personalized, growth-based keyboarding progression, setting individual goals to improve their typing accuracy and fluency.

World Languages: Spanish and French

Third graders select one language—French or Spanish—to learn during their time in Lower School. Fay's Lower School French and Spanish program is based on F.L.E.S. (Foreign Language in the Elementary School). The F.L.E.S. methodologies are based on the developmental progression of first language acquisition, which involves the active use of and exposure to the language being learned. The learning style is hands-on and activity-based with textual support. Listening and speaking skills are emphasized through interactive activities such as games, choral repetition, TPR (Total Physical Response), acting out dialogues, and music. Books read in the target language help students develop basic reading and writing skills. The study of culture continues to be a highlight of the program, as it allows the students to learn and appreciate French and Spanish speaking communities. The students are encouraged to use French or Spanish to express basic ideas and to participate in brief conversations. Throughout the Lower School program, students develop and expand the four language skills of reading, writing, listening, and speaking.

At the beginning of grade three, lessons address themes relating to everyday life and encourage interpersonal communication in the target language. Group activities, skits, music, and theme-based projects help students become more comfortable speaking the language and applying what they have learned. Through these activities, students develop an appreciation for the language and culture. The program focuses on the development of listening and speaking skills, and by the end of the year, it is expected that students are able to communicate more comfortably in their chosen world language.

Music

The Lower School music program is based on the educational philosophy of Zoltán Kodály and incorporates other methods, including Orff and Dalcroze. Children acquire musical skills and appreciation through singing, speaking, listening,

games, movement, music reading and writing, improvisation, composition, and playing instruments. Students also perform in school concerts and plays. Students are exposed to a repertoire of music from folk songs and world music to classical music. As music is a language of emotion, the music curriculum supports Fay's core value of Wellness of Mind, Body, and Spirit by educating the child's emotional intelligence.

Music goals in grade three include review of all grade two concepts as well as identification of the absolute pitch names on the treble staff; understanding of the do pentatonic scale; understanding of movable do (do = G, F or C); understanding of sixteenth note/eighth note combinations, and identifying tones below do (the extended do pentatonic scale). Third grade students also begin to study soprano recorder.

Art

In grade three, the fruits of developing eye-hand coordination begin to appear in students' work on a more sophisticated level. Students have more control over the media and can incorporate more detail into their work. They begin to explore the art history timeline as they look at cave art, Egyptian art, Greek and Roman art, African art, and Native American art.

Students who successfully complete the third grade art program will be able to:

- Use media and tools appropriately
- Understand the role of art in history
- Respect the space of other students
- Care for their materials and maintain a clean workspace

Drama

Drama is a year-long course in which third graders explore creative ways to express themselves through storytelling. Through units including puppetry and pantomime, students use their voices and bodies to portray emotions and characters and expand their creativity by using a range of strategies to tell a story. As students collaborate with their peers, they develop communication skills, emotional intelligence, and self-confidence.

Physical Education

The goal of grade three P.E. is to encourage a lifelong appreciation for physical fitness, health, and sport. Students continue the developmental sequence for movement, exploration, cooperation, cardiovascular fitness, and sportsmanship. Teachers assess each student and give an effort grade every two weeks, which is based upon each child's daily level of effort and attentiveness.

Students change into physical education attire at the beginning of each class. They begin with warm-ups and stretching exercises, where they practice basic motor skills such as running, skipping, hopping, jumping, sliding, galloping, throwing, catching, striking, and kicking. Students learn about team sports, in which teamwork, cooperation, sportsmanship, and skill development are an important part of the program. Games and activities in this grade are more structured and competitive by the end of the year to prepare students for fourth grade P.E. There is a strong emphasis placed on the rules, skills, strategies, and expectations of all sports.

Lower School: Grade Four

Wellness

Wellness education in the Lower School focuses on helping students learn about themselves and how they relate to others. In third grade, students engage in structured, safe, and supportive classes designed to foster communication, self-control, and interpersonal problem-solving skills. Students explore these topics in a consistent and supportive environment, students build essential life skills that contribute to their personal growth and positive relationships with others. Students practice:

- Self-advocacy
- Identifying and expressing emotions in appropriate ways
- Developing strategies to navigate and resolve conflicts effectively
- Practicing techniques to enhance focus, self-awareness, and emotional regulation
- Understanding and respecting diverse perspectives and experiences

Grade Four

Grade Four Overview

In fourth grade, students continue their journey of understanding who they are as learners and what it takes to be a successful student at Fay. Students begin each day in homeroom groupings, which are created to support the learning and personal welfare of each child. Students meet with specialists for all core academic instruction, which includes language arts, mathematics, science, foreign language, music, art, digital literacy, wellness, physical education, and library. Students participate in a lively academic program that includes direct instruction, class discussions, investigations, and projects. Instructional routines and practices are aligned with the developmental, cognitive, and emotional strengths and needs of each particular group of fourth graders, and teachers encourage increased independence and responsibility for one's learning as the year progresses.

Mathematics

The goal of Lower School mathematics is to encourage and support students as they develop number sense, computational fluency and efficiency, strategies for problem solving, and a beginning understanding of the connectedness of mathematical topics and procedures. The curriculum offers opportunities for self-discovery and exploration of concepts and personal strategies as well as exploring and understanding traditional algorithms. Visual models are used at every level to provide concrete examples of abstract concepts.

Grade four expands upon the goals and objectives of third grade mathematics with a continued focus on the conceptual and procedural understanding of whole number operations with a concentrated study of multiplication and division. Fractional concepts are introduced with concrete models supported by mathematical conversations and writing. The curriculum encourages students to think critically, question, and analyze, asking more than a recall of basic facts. Students learn to represent and explain their thinking using pictures, numbers, and words. Students continue to develop and extend mathematical proficiency in number and operations; fractions, decimals, and percents; measurement, geometry; data analysis and probability; and algebraic thinking.

Students who successfully complete the grade four mathematics program will be able to fundamental understanding of topics in the following categories:

Number and Operations

- Recalling and applying basic addition and subtraction math facts
- Reviewing and applying multi-digit addition and subtraction with regrouping
- Reviewing strategies for multiplication fact fluency
- Describing the relationship between multiplication and division
- Showing beginning computational fluency with double-digit multiplication

- Practicing and applying the partial-quotients division algorithm with single-digit divisors
- Identifying various meanings for multiplication and division
- Finding factor pairs of whole numbers 1-100 and determining whether a given whole number is a multiple of a given one-digit factor
- Showing how equal fractions of a whole have the same area
- Showing that equal parts of shapes are not necessarily congruent
- Describing equivalent relationships among halves, fourths, and eighths
- Comparing and ordering fractions using a visual fraction model or benchmark
- Adding and subtracting fractions with like denominators
- Converting fractions to create equivalent fractions
- Extending place value patterns to decimals and practice reading and writing decimals to thousandths
- Comparing, ordering, and rounding decimals
- Adding and subtracting decimals

Geometry

- Measuring area and perimeter of basic quadrangles
- Describing the relationship between area and perimeter
- Describing transformations of two-dimensional shapes
- Using tools for geometric constructions (protractor and straight-edge)
- Identifying and constructing lines, segments, rays, and angles
- Classifying polygons based on their properties
- Measuring and identifying angles as acute, right, obtuse, straight, and reflex

Measurement and Data Analysis

- Visually representing data to use as a tool during the analysis process
- Summarizing numerical data sets in relation to their contexts
- Defining ways data can be collected
- Representing and interpreting data using line plots
- Solving problems involving measurement and conversion of measurements from a larger unit to smaller units

Algebraic Thinking

- Evaluating the meaning of a number sentence to determine whether it is true or false
- Applying vocabulary and notation for open sentences (introduction of variables)
- Representing growing patterns geometrically, symbolically, and graphically
- Using the four operations with whole numbers to solve problems
- Symbolically and numerically representing contextual problems
- Solving multi step word problems and representing these problems using open number sentences and variables
- Generating a number or shape pattern that follows a given rule or function
- Using parentheses to evaluate expressions
- Writing simple expressions and equations that record calculations with numbers

- Evaluating and interpreting numerical expressions without calculation

Reading

In a classroom environment rich with books, grade four students participate in a wide variety of reading experiences in guided and independent settings. Students read independently each day from books at their designated reading levels, choosing from a range of genres including realistic fiction, fantasy, mystery, historical fiction, science fiction, biography, informational texts, and poetry. To improve comprehension, students learn strategies that include prediction, connection, visualization, questioning, and summarizing. Teachers conduct one-on-one conferences with students to monitor individual progress and set individual goals. Teachers conduct guided reading groups that teach students how to discuss literature, ask and answer questions about what they have read, and apply the lessons learned in a text to their own lives.

Writing

The Lower School writing program encourages students to develop an understanding of and appreciation for creative and expository writing, poetry, and drama, and to communicate effectively through written and spoken language. Students write daily and complete assignments through a workshop process in which they develop strategies for organizing their thoughts, revising and discussing their work in student-teacher conferences, and sharing published pieces with the class.

Students explore and apply proper language and grammar to improve their writing. Throughout the writing curriculum, process writing and grammar study are designed to be parallel and interconnected methods of ensuring mastery of skills. Using the 6+1 Traits of Writing (ideas, organization, voice, word choice, sentence fluency, conventions, and presentation), students work through the various stages of the writing process, from writing simply to get ideas down on paper to crafting final drafts of publishable writing. From the earliest stages of a rough draft through a published piece, students use the Six Traits as a guide during the revision process.

In grade four, students begin to work through the stages of writing at their own pace and are encouraged to edit their work more independently as they become more facile with the mechanics of writing. Students learn about paragraph structure, dialogue, and literary devices to enhance their written work.

A yearlong vocabulary and word study program is also an integral part of English instruction. In fourth grade, teachers create a word-rich environment by modeling an interest in words through what students see in the classroom, read in a variety of texts, hear in the classroom, and use in speaking and writing. As part of their word study, students explore derivational relationships and Greek and Latin roots, making meaningful connections between words they know and those they may not know.

Fourth graders continue to participate in our public speaking program, crafting speeches about influential historical figures and delivering their speeches in the theater. The public speaking curriculum provides ample opportunities for developing confidence and presentation skills.

Lower School: Grade Four

Social Studies

The fourth grade social studies curriculum is designed to help expand students' knowledge and understanding of world geography and their place within it. Students study key components of the five themes of geography before embarking on an "Around the World in 160 Days" journey. Students "travel" to several countries on multiple continents and learn about five key elements: food and culture, sports and entertainment, economy and goods, geography and tourism, and government and nationalism. Student practice collaboration, reading comprehension, research and note-taking, presentation building and public speaking, and

- Demonstrate understanding of the five themes of geography
- Analyze information
- Compare and contrast information
- Identify and extract main ideas and supporting details from a variety of resources
- Organize information with and take notes

Science

Lower School science practices have been adopted from the National Research Council's *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas* (2012) and build on skills and material covered in Primary School. Students who demonstrate success in Lower School science courses will be able to:

- Ask clarifying and extending questions
- Apply the scientific process to creative real-world projects
- Create and follow a written plan for an investigation
- Gather, organize, and explain data
- Predict the outcome of an investigation and analyze the results
- Collaborate effectively to complete investigations and solve problems
- Use evidence from real-world observations to demonstrate conceptual understanding
- Communicate concepts and observations through writing and drawing

Fourth graders study the environment, with a focus on water, land, and air pollution. They conduct in-class research, culminating with the creation of student-produced informational videos and an engineering design project in which students design, build, test, and redesign a pollution solution. In a unit on color, light, and sight, students learn about vision and hearing and how the ear, eyes, and brain work together. Finally, fourth graders explore biomes, focusing on what it is that plants need to grow. Revisiting their work from the fall, students design and create sustainable biomes that enable plants to grow in potentially adverse conditions.

Digital Literacy

Digital Literacy provides students with key technology skills, practices, and behaviors that they need to be successful both in and out of the classroom. Students learn to leverage technology to achieve their goals and to be responsible digital citizens by using it safely and ethically. Digital Literacy focuses on learning how to use technology as a tool for productivity, with

a focus on construction, critical thinking, communication, and collaboration. The Digital Literacy curriculum is based on the International Society for Technology in Education Student Standards (ISTE).

Each Lower School student has access to a Chromebook for use in all classes throughout the day, and students use a range of Google Education tools, including Gmail, Google Classroom, Docs, Sheets, and Slides. Students also utilize tools, including Scratch for coding, and Typing Club for keyboarding skills.

World Languages: Spanish and French

Fourth graders choose one language—Spanish or French—to study throughout the year; for most students they continue their study of the language they selected in third grade. Fay's Lower School French and Spanish program is based on F.L.E.S. (Foreign Language in the Elementary School). The F.L.E.S. methodologies are based on the developmental progression of first language acquisition, which involves the active use of and exposure to the language being learned. The learning style is hands-on and activity-based with textual support. Teachers emphasize listening and speaking skills through interactive activities such as games, choral repetition, TPR (Total Physical Response), acting out dialogues, and music. Through the use of vocabulary-rich activities and repeated sentence structures grounded in thematic units, students develop basic reading and writing skills. The study of culture continues to be a highlight of the program, as it allows the students to learn and appreciate French and Spanish speaking communities. Teachers encourage students to use French or Spanish to express basic ideas and to participate in brief conversations.

Fourth graders review the material learned in third grade and expand on basic vocabulary. They learn simple sentence structures, theme-based vocabulary, and common cultural expressions through hands-on activities, games, and age-appropriate Francophone and Hispanic literature and media. Throughout the year, students participate in group activities that enable them to sharpen skills in reading, writing, listening, and speaking. The class transitions to a more expanded use of French or Spanish, thus enabling the students to enhance their listening comprehension and speaking skills. By the end of the year, students are comfortable using French or Spanish expressions and basic language in the classroom. Culture is an important part of the program, and the students learn about special Francophone and Hispanic traditions and celebrations.

Music

The Lower School music program is based on the educational philosophy of Zoltán Kodály and incorporates other methods, including Orff and Dalcroze. Children acquire musical skills and appreciation through singing, speaking, listening, games, movement, music reading and writing, improvisation, composition, and playing instruments. Students also perform in school concerts and plays. Students are exposed to a repertoire of music from folk songs and world music to classical music. As music is a language of emotion, the music curriculum supports Fay's core value of Wellness of Mind, Body, and Spirit by supporting the development of children's emotional intelligence.

Grade four goals include review of all grade three concepts; identification and demonstration of the extended do pentatonic scale (low la, low so, high do); recognition of the do, la, and so pentatonic scales; reading whole notes and whole rests; identifying uneven rhythms (syncopation); identifying half steps; learning the solfege tone fa, identifying tetrachords and hexachords, learning about key signatures; identifying meter of 3, and singing in harmony. Fourth graders continue their study of the soprano recorder at a more advanced level.

Art

Students focus on techniques of illustration throughout the year. They work with pencil, pen, watercolor paints, oil pastels, dry pastels, and acrylic paint. They learn about the differences and similarities among these media. One major project is a painting on canvas from observing a still life.

Students who successfully complete the fourth grade art program will be able to:

- Use media and tools appropriately
- Listen to and understand multi-step directions
- Understand the slab method of clay construction
- Work cooperatively
- Understand the color wheel as they learn to mix paint for a still-life on canvas
- Care for their materials and maintain a clean workspace

Drama

Building upon the foundation established in third grade, fourth grade drama is a year-long course that offers students an opportunity to deepen their understanding of the foundations of drama including voice, body, imagination, ensemble, and story. Students explore the art of the theater, express themselves through storytelling, and learn to collaborate with peers as an empathetic ensemble member.

Physical Education

The fourth grade P.E. program focuses on cardiovascular fitness and developmentally appropriate skills and activities as well as continuing progress towards developing an awareness of and participation in team sports. Teachers address skill development, effort, participation, and sportsmanship, with a focus on how to handle competitive situations in a positive manner. As grade four students will be choosing from among a range of athletic offerings in grade five, the department introduces options to students by inviting a coach from each Upper School sport to speak to the grade four students in a guest lecture format, so students can listen to the expectations of coaches on that level and to ask questions. Students begin using lockers in Harlow Gym and are expected to change into appropriate physical education attire at the beginning of each class. They begin with warm-ups and stretching exercises.

Activities:

- Fall: Flag football, field hockey, cross country, soccer, and tennis
- Winter: Basketball, floor hockey, volleyball, climbing wall
- Spring: Lacrosse, softball, baseball, track and field, and polo

Other PE Activities:

Tag games, capture the flag, kickball, parachute, obstacle courses, Frisbee (ultimate and golf), basic tumbling and stunts, creative movement and spatial awareness activities, relay races, scooter activities, muscle conditioning (vs. weight lifting)

Wellness

In Wellness class, fourth graders focus on essential life skills that support their social, emotional, and physical well-being. The curriculum is designed to be responsive to the needs of the students, adapting to class social dynamics, school climate, and emerging issues. Students practice:

- Understanding cliques, fostering inclusivity, and building positive relationships
- Recognizing, responding to, and preventing bullying behaviors
- Developing critical thinking skills to navigate challenges effectively
- Learning to express personal needs and set healthy boundaries
- Strengthening techniques to improve focus, self-regulation, and emotional awareness
- Strengthening collaboration skills through group activities and discussions
- Exploring habits that promote overall well-being, including nutrition, exercise, and sleep

Lower School: Grade Five

Grade Five

Grade Five Overview

In fifth grade, students continue their journey of understanding who they are as learners and what it takes to be a successful student at Fay. Fifth graders continue to meet with their homeroom teachers each morning and afternoon to support their academic and social-emotional needs. Academics are departmentalized in fifth grade, and students participate in a rich academic program that includes reading, English, mathematics, science, social studies, world language, music, art, and principles of design. Instructional routines and practices are aligned with the developmental, cognitive, and emotional strengths and needs of each particular group of fifth graders, and teachers encourage increased independence and responsibility for one's learning as the year progresses. Highlights of the year include the transition to interscholastic athletics; expanded options for music classes, and grade-level experiences that help establish, solidify, and celebrate the class community.

Mathematics

The goal of Lower School mathematics is to encourage and support students as they develop number sense, computational fluency and efficiency, strategies for problem solving, and a beginning understanding of the connectedness of mathematical topics and procedures. The curriculum offers opportunities for self-discovery and exploration of concepts and personal strategies as well as exploring and understanding traditional algorithms. Visual models are used at every level to provide concrete examples of abstract concepts.

Grade five expands upon the goals and objectives of fourth grade mathematics. Students practice computational skills and application of whole number operations, and they build their conceptual understanding of fractions, decimals, and percents. Writing and proof are significant components of the fifth grade program, and students are frequently asked to clarify, justify, and support their thinking in their mathematical writing. Students continue to develop and extend mathematical proficiency in the following areas: number and operations; fractions, decimals, and percents; measurement, geometry; data analysis and probability; and algebraic thinking.

Students who successfully complete the grade five mathematics program will have a fundamental understanding of topics in the following categories:

Number and Operations

- Demonstrating fluency in basic multiplication facts
- Solving multiplication problems using the traditional multiplication algorithm
- Solving division problems with partial quotients and “traditional” long-division algorithms
- Interpreting remainders
- Demonstrating understanding of order of operation
- Determining factors of numbers and finding the greatest common factor of two numbers
- Generating multiples of numbers and finding the least common multiple of two numbers
- Classifying numbers as prime or composite; as even or odd; and as abundant, deficient, or perfect
- Determining factorizations including prime factorization of a whole number and using prime factorization to find common multiples and factors
- Understanding the place value system and powers of ten
- Understanding fractions as parts of a whole, as measures or quantities, as quotients, as decimals, and as percents
- Determining equivalent fractions, decimals, and percents
- Comparing and ordering decimals, fractions, and percents
- Developing benchmarks for estimating with fractions, decimals, and percents
- Reading and writing decimals
- Adding and subtracting fractions and decimals
- Solving problems involving adding and subtracting fractions

Geometry

- Developing and applying strategies and formulas for calculating area and perimeter
- Exploring relationships between area and perimeter
- Graphing points on a coordinate plane
- Converting like measurement units within a given measurement system
- Representing and interpreting data
- Understanding concepts of volume

Measurement & Data Analysis

- Visually representing data to use as an analytical tool
- Summarizing numerical data sets in relation to their contexts
- Defining ways data can be collected
- Investigating, creating, and interpreting scatter plots

Algebraic Thinking

- Understanding equality as a relationship of equivalence between two expressions and using the relationship to find missing values
- Writing and evaluating expressions using grouping symbols
- Generating numeric patterns using given rules

Reading

Literature is a tool for understanding the world and the people in it. Exposure to a broad range of literary styles and subject matter in grade five encourages students to develop their own interests, tastes, and critical skills. Teachers select books because their content parallels material studied in other classes, they relate to a larger theme, they are part of an important body of literature, or they support a community of learners. Finally, selected titles provide important connections for the reader: to themselves and peers, and to other generations, cultures, time periods, philosophies, and worlds.

Being part of a community of readers is an important aspect of the grade five reading program, as students are encouraged to share their book interests. Students read a variety of material and develop an in-depth appreciation of language and style. Fifth grade reading classes develop an understanding of plot, character,

and theme. Students analyze reading for meaning and value, critiquing an author's intent and synthesizing and exploring information. Students are encouraged to develop critical standards and awareness of the richness of language.

Writing

The fifth grade writing program is workshop-based, and students learn what it is to be a writer working within a community of writers. Students write during class and practice expressing their ideas in a range of creative and expository genres. One-on-one conferences with the teacher provide students with the appropriate individualized guidance to improve their writing skills. Students use Google Docs, a platform that facilitates writing instruction through collaboration and feedback.

The fifth grade writing program builds on the objectives established in fourth grade. Students develop their writing skills and stamina by consistently writing. Students also develop their ability to read like writers. Students learn to apply the strategies they find in presented texts. At this stage of their writing study, students have learned to use a variety of strategies to generate ideas and plan their writing independently. Students explore literary genres by developing pieces that follow the distinct structure and purpose of each genre. Rewriting is a focal concept of the fifth grade curriculum. Students learn how writers continually re-evaluate, revise, and rewrite their pieces—a process supported by the use of Google Docs.

Integrated grammar and vocabulary instruction supports the students' development as writers. Grammar lessons are woven throughout the curriculum, with students directly applying new rules to enhance their writing. The objective of the grammar program is to provide students with an increasingly sophisticated understanding of language conventions to continuously hone their craft.

A hallmark of the Lower School writing program is the tradition of public speaking. As in grades three and four, students develop ideas, draft, and revise speeches. Delivering their speeches to an appreciative audience encourages students to develop confidence and comfort with public speaking.

Social Studies

Fifth graders focus on the exploration of and migration to America. Students study how, when, and why people explored and migrated to America before the founding of the United States, learning about the social, economic, and political development of the thirteen colonies and the causes and conflicts that led to the American Revolution. Students learn how the movement of people, their ideologies, and their ways of life impacted the growth of American society and culture over the three centuries of our nation's existence. During this study, students learn history through storytelling and are introduced to historical thinking skills, such as context, perspective, and cause and effect, to deepen their understanding.

Students who successfully complete the grade five social studies program will be able to:

- Interpret, analyze, and synthesize information from both primary and secondary sources

- Recognize and apply historical thinking skills
- Organize and articulate their understanding of the topics studied both verbally and in writing

Science

The Lower School science practices have been adopted from the National Research Council's *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas* (2012) and build on skills and material covered in Primary School. Students who demonstrate success in Lower School science courses will be able to:

- Ask clarifying and extending questions
- Apply the scientific process to creative real-world projects
- Create and follow a written plan for an investigation
- Understand how to gather, organize, and explain data
- Predict the outcome of an investigation and analyze the results
- Collaborate effectively to complete investigations and solve problems
- Use evidence from real-world observations to demonstrate conceptual understanding
- Communicate concepts and observations through writing and drawing

Students in fifth grade ask, "How can we as scientists explain the world?" Fifth graders begin their year with a study of energy and electricity, during which they explore the properties of renewable energy and the uses and forms of energy. This focus prepares students for design challenges that encourage the application of these understandings. During a unit on ocean ecosystems, students learn about ocean life, investigate how humans and the ocean are interconnected, consider how our oceans are changing, and identify the driving forces that are behind that change. In a related hands-on design challenge, students learn how to balance buoyancy and pressure as they design, build, test, and redesign submersibles. In a unit on inertia, students apply their knowledge of Newton's Laws of Motion and the properties of air to the mechanics of air-powered vehicles, as students build balloon-powered race cars, hovercrafts, and water rockets to help them see these principles in action.

Principles of Design

Principles of Design is a Creativity and Design course for fifth and sixth grade students that establishes a solid foundation for Creators courses in grades seven and eight. Materials and skills that are covered in Principles of Design include ideation, iteration, brainstorming, hand drawing and CAD design, environment and design, sustainable design, logo design, and the connection between culture and design. Students learn how designers use technology to impact their environment. By the end of fifth grade, students are able to identify different relationships between technology and environments; describe ways in which designers use technology to positively and negatively impact their environment; ideate and design solutions to a problem; and construct, test, and evaluate their solutions.

Lower School: Grade Five

World Languages: French and Spanish

Fifth graders choose one language—Spanish or French—to study throughout the year; returning students continue their study of the language they selected in third or fourth grade. Fay's Lower School French and Spanish program is based on F.L.E.S. (Foreign Language in the Elementary School). The F.L.E.S. methodologies are based on the developmental progression of first language acquisition, which involves the active use of and exposure to the language being learned. Teachers emphasize listening and speaking skills through interactive activities such as games, choral repetition, TPR (Total Physical Response), acting out dialogues, and music. Through the use of vocabulary-rich activities and repeated sentence structures grounded in thematic units, students develop basic reading and writing skills. The study of culture continues to be a highlight of the program, as it allows the students to learn and appreciate French and Spanish speaking communities. The students are encouraged to use French or Spanish to express basic ideas and to participate in brief conversations.

In grade five, students embark on more advanced written and visual projects, skits, and class performances. Oral communication in the target language continues to be important, with increased emphasis on the development of basic reading and writing skills, as well as on basic grammar in preparation for a more formal study of the language in grade six. Authentic children's literature is employed along with age- and level-appropriate music, videos, and games. Cultural proficiency and knowledge of basic historical events continue to be an important part of the curriculum and offer an opportunity for students to learn and apply new vocabulary and grammar. At this level, the class is mostly conducted in the target language, so that by the end of the year, students demonstrate a basic ability to understand, read, speak, and write basic French or Spanish.

Music

Beginning in grade five, students elect to participate in Beginning Band, the Lower School Chorale, or Beginning Strings.

Beginning Band is open to students in grades five and six. Students learn how to assemble, hold, play, and care for their instruments. No previous instrumental experience is necessary. During the year, students learn note reading, fingering, rhythm, articulations, intonation, dynamics, posture, and appropriate music symbols. By the end of the year, students play beginning-level music as a band. Success in this course requires practice as homework. Instrument choices include flute, clarinet, alto saxophone, trumpet, trombone, and baritone horn. Students wishing to play oboe or French horn are required to seek additional support through private lessons.

The Lower School Chorale is open to students in grades five and six. The chorus is a treble choir that sings pieces in unison and two parts. Students also practice music reading and listening skills through the use of movable do solfege and rhythm syllables.

Beginning Strings is open to students in grades five and six. Students learn how to assemble, hold, play, and care for their instruments. No previous instrumental experience is necessary.

During the course of the year, students learn note reading, fingering, rhythm, bowing, intonation, dynamics, posture, and appropriate music. By the end of the year, students play beginning-level music as an ensemble. Success in this course requires practice as homework. Students may choose either violin or cello; students wishing to play viola are required to seek additional support through private lessons.

Art

Grade five students build on their existing skills. They focus on portraiture and the proportions of the figure. They draw studies of hands, feet, and shoes, and they learn simple anatomy. They work in the ceramics studio to create and glaze a hand-built vessel.

Students who complete the fifth grade art program will be able to:

- Use media and tools appropriately
- Listen to and understand multi-step directions
- Understand the basics of portraiture and drawing from life
- Understand the slab method of clay construction
- Understand the proper technique of glazing ceramics
- Care for their materials and maintain a clean workspace

Drama

In this year-long course, fifth graders work as an ensemble to explore the key elements of theatrical storytelling. They learn how to use elements of theatrical design to enhance storytelling, such as props and costumes. Students delve into playwriting, create complex original characters, enhance their performance skills, cultivate effective habits of a theater artist, and discover the connection between theater and empathy.

Athletics

The fifth and sixth grade athletic program at Fay is designed as a bridge from the physical education curriculum taught in Kindergarten through grade four to interscholastic athletics in grade seven. The focus of this program is to introduce students to a variety of activities, provide sport-specific instruction, foster appropriate levels of competition, and provide opportunities for individuals to learn about teamwork, sportsmanship, and fair play. The program creates a fun and challenging environment where players have the opportunity to learn and grow as athletes. Coaches focus on technique and skill development and, as competency increases, tactical elements and game situations.

The three primary components of the program are:

- Instructional: Sport-specific instruction focused on skill development, technique, knowledge and understanding of rules, team concepts, and fair play
- Intramural: Competition against peers to build teamwork and camaraderie within the sport setting
- Interscholastic: Appropriate levels of competition against peer schools to provide a fun and positive experience

Sports offered:

- Fall: cross country, field hockey, flag football, soccer
- Winter: basketball, multi-sport, squash, wrestling, dance
- Spring: baseball, lacrosse, softball, multi-sport

Wellness

In fifth grade Wellness class, students participate in discussions and activities that help them navigate the transition into pre-adolescence. The curriculum focuses on building essential life skills, fostering self-awareness, and promoting healthy relationships. Students practice:

- Identifying, preventing, and responding to bullying while developing positive communication strategies
- Learning techniques to handle academic and social pressures effectively
- Developing strategies to make responsible choices in challenging situations
- Understanding the importance of physical activity for overall well-being
- Learning about physical and emotional changes that come with puberty in a supportive and age-appropriate way
- Exploring the value of integrity and treating others with kindness
- Expanding techniques to enhance focus, emotional regulation, and self-reflection

Grade Six

Grade Six Overview

As our sixth graders conclude their Lower School experience and prepare for their transition to the Upper School, they continue their journey of understanding who they are as learners and what it takes to be a successful student at Fay. Sixth graders continue to meet with their homeroom teachers each morning and afternoon to support their academic and social-emotional needs. Academics are departmentalized in sixth grade, and students participate in an engaging program that includes reading, English, mathematics, science, social studies, foreign language, music, art, and principles of design. Instructional routines and practices are aligned with the developmental, cognitive, and emotional strengths and needs of each particular group of sixth graders, and teachers encourage increased independence and responsibility for one's learning as the year progresses. A highlight of the year is a grade-level experience that provides closure to Lower School as students look forward to entering the Upper School in the fall.

Mathematics

The goal of Lower School mathematics is to encourage and support students as they develop number sense, computational fluency and efficiency, strategies for problem solving, and a beginning understanding of the connectedness of mathematical topics and procedures. The curriculum offers opportunities for self-discovery and exploration of concepts and personal strategies as well as exploring and understanding traditional algorithms. Visual models are used at every level to provide concrete examples of abstract concepts.

Grade six expands upon the goals and objectives of fifth grade mathematics. Students practice computational skills and application of whole number operations; they also build conceptual and procedural understanding and manipulation of positive and negative fractions, decimals, and percents. Students also explore two-dimensional geometric concepts and measurement. Writing is a significant component of the sixth grade program, and students are frequently challenged to clarify, justify, and support their thinking in their mathematical writing. Teachers work closely with Upper School math teachers to provide and support an instructional progression in preparation for Upper School math classes. Students continue to develop and extend mathematical proficiency in number and operations; fractions, decimals, and percents; measurement, geometry; data analysis and probability; and algebraic thinking.

Students who successfully complete the grade six mathematics program will be able to demonstrate fundamental understanding of topics in the following categories:

Number and Operations

- Understanding the inverse relationship between multiplication and division
- Applying and extending previous understandings of arithmetic to positive and negative integers
- Developing algorithms for adding, subtracting, multiplying,

Lower School: Grade Six

- and dividing positive and negative numbers
- Locating positive and negative rational numbers on a number line
- Developing algorithms for adding, subtracting, multiplying, and dividing fractions and decimals
- Using benchmarks and estimation strategies to estimate the result of fraction operations
- Solving problems using fraction and decimal operations

Geometry

- Understanding measurement as a counting of iterated units and differentiating between types of units (ex: linear, square, and cubic units)
- Developing and applying strategies for measuring the areas of rectangles, triangles, and parallelograms
- Measuring the perimeter of two-dimensional shapes
- Developing and applying strategies for measuring the volume and surface area of rectangular prisms
- Measuring and categorizing angles using an angle ruler or protractor
- Describing the relationship between the interior and exterior angle sums of polygons
- Classifying two-dimensional shapes based on properties such as regularness, concavity, and complexity
- Classifying three-dimensional shapes as polyhedra, prisms, and pyramids

Measurement & Data Analysis

- Visually representing data to use as a tool during the analysis process
- Summarizing numerical data sets in relation to their contexts
- Defining ways data can be collected
- Investigating, creating, and interpreting scatter plots

Algebraic Thinking

- Representing, analyzing, and generalizing patterns with tables, graphs, words, and, when possible, symbolic rules
- Relating and comparing different forms of representation for a relationship
- Identifying functions as linear or nonlinear and contrast their properties from tables, graphs, or equations
- Showing an initial conceptual understanding of different uses of variables

Reading

Literature is a tool for understanding the world and the people in it. Exposure to a broad range of literary styles and subject matter in grade six encourages students to explore their interests, gain new perspectives, and develop critical skills. Teachers select books because their content parallels material studied in other classes, because they relate to a larger theme, because they are part of an important body of literature, or because they support a community of learners. Finally, selected titles provide important connections for the reader: to themselves, their peers, other texts, other generations, other cultures, and other time periods.

Strengthening the sense of being a part of a community of readers is an important aspect of the reading program in grade six as students engage with the material actively, bringing their unique perspectives and personal interests into thoughtful

discussions. Collective and individual comprehension deepens as students interpret the text and practice using evidence to support their assertions. This exchange of ideas not only strengthens connections but also encourages growth, as each person's voice contributes to a more dynamic and inclusive conversation.

Writing

Through the Lower School writing program, students learn what it is to be a writer working within a community of writers. The sixth grade writing program is workshop-based, focusing on reworking and revising texts as integral parts of the writing process. Students write during class and learn how to express their ideas in a variety of creative and expository genres. One-on-one conferences with the teacher provide students with individualized guidance to improve their writing skills. Students use Google Docs, a platform that facilitates writing instruction through collaboration and feedback.

The sixth grade writing program builds on the objectives established in grade five. Students explore various literary genres by developing pieces that follow the distinct structure and purpose of each genre. At this stage of the writing program, students recognize the elements of great writing and are more proficient at revising their work. As their metacognitive skills develop and their sense of agency increases, students apply each stage of the writing process with increased independence.

Students participate in a more intensive study of grammar and vocabulary as they experiment with sentence structure and use increasingly sophisticated written language. Grammar lessons are woven throughout the curriculum as students directly apply rules to enhance their writing. Through instruction in Greek and Latin roots, prefixes, and suffixes, students expand their vocabulary base and are better able to infer the meaning of unknown words.

A hallmark of the Lower School writing program is the tradition of the individual student speeches. As in grades three, four, and five, students develop ideas, draft, and revise their speeches in a context of structure and support. Delivering their speeches to an appreciative audience helps students to develop confidence and comfort with public speaking. Students become increasingly poised public speakers, sharing their thoughts with their peers and other members of the community, and modeling the public speaking skills the younger students will one day acquire.

Social Studies

In sixth grade social studies, students continue their study of American history with a three-part study of the United States government, law, and economics. Students learn about the formulation of our democracy and the growth of the three branches of government through an examination of the founding documents and the different roles played by elected officials at the federal, state, and local levels. Students then learn the principles of our economy, focusing on the growth of capitalism and the American monetary system. Finally, students explore our system of justice, learning the roles and responsibilities of the federal, state, and local courts through a focused study of seminal cases that have appeared before the United States Supreme Court. Throughout the year, students learn history through storytelling;

they continue to practice recognizing and applying the historical thinking skills of context, perspective, and cause and effect. The students culminate the year with a research project on a topic related to the period of study.

Students who successfully complete the grade six social studies program will be able to:

- Interpret, analyze, and synthesize information from both primary and secondary sources
- Recognize and apply historical thinking skills
- Organize and articulate their understanding of the topics studied both verbally and in writing

Science

The Lower School science practices have been adopted from the National Research Council's *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas* (2012) and directly build upon skills and material covered in Primary School. Students who demonstrate success in Lower School science courses will be able to:

- Ask clarifying and extending questions
- Apply the scientific process to creative real-world projects
- Create and follow a written plan for an investigation
- Gather, organize, and explain data
- Predict the outcome of an investigation and analyze the results
- Collaborate effectively to complete investigations and solve problems
- Use evidence from real-world observations to demonstrate conceptual understanding
- Communicate concepts and observations through writing and drawing

Students in sixth grade ask, "How can science inspire new ideas and explanations?" In the fall, sixth graders study the solar system and learn about the Mars 2030 Challenge as they explore the future and possibilities of space. Students also "travel" to Mars, and they participate in an engineering design project in which they create a Mars Lander/Rover. The focus then shifts to Earth and its structures, which includes a study of landforms and erosion as well as an Earthquake Design Challenge as they are introduced to the constantly changing planet surface. At the end of the year, students look inside Earth as they learn about earth systems and resources. Students explore the resources available to humans and consider how these resources should be used while also exploring Earth's cycles and systems.

Principles of Design

Principles of Design is the Creativity and Design course for sixth grade students that provides a foundation for Creators courses in grades seven and eight. Materials and skills that are covered in Principles of Design include ideation, iteration, brainstorming, hand drawing and CAD Design, environment and design, sustainable design, logo design, and the connection between culture and design. Students learn to identify and describe ways in which designers help develop a society; ideate and design solutions to a problem; and construct, test, and evaluate their solutions.

World Languages: Spanish and French

Sixth graders choose one language—French or Spanish—to study throughout the year; most students continue their study of the language they selected when they joined Lower School. Fay's Lower School French and Spanish program is based on ACTFL's (American Council on the Teaching of Foreign Languages) World-Readiness Standards for Learning Languages which includes five main goal areas: Communication, Culture, Connections, Comparisons, and Communities. Teachers work to cultivate interculturality, use vocabulary and grammar in context, and assess language understanding in a variety of modalities.

In grade six, students apply their knowledge of the language acquired in previous years to more advanced written and visual projects, skits, and class performances. While oral communication in the language continues to be important, there is continued emphasis on the development of basic reading and writing skills, as well as on grammar. Teachers integrate authentic children's literature along with age and level-appropriate music, videos, and games. Cultural proficiency and knowledge of basic historical events continue to be an important part of the curriculum and are connected to relevant vocabulary and grammar. At this level, the class is mostly conducted in the target language, so that by the end of the year, students demonstrate confidence in their ability to understand, read, speak, and write in Spanish or French.

Music

In grade six, students elect to participate in Beginning Band, the Lower School Chorale, or Beginning Strings.

Beginning Band is open to students in grades five and six. Students learn how to assemble, hold, play, and care for their instruments. No previous instrumental experience is necessary. During the year, students learn note reading, fingering, rhythm, articulations, intonation, dynamics, posture, and appropriate music symbols. By the end of the year, students play beginning-level music as a band. Success in this course requires practice as homework. Instrument choices include flute, clarinet, alto saxophone, trumpet, trombone, and baritone horn. Students wishing to play oboe or French horn are required to seek additional support through private lessons.

The Lower School Chorale is open to students in grades five and six. The chorus is a treble choir that sings pieces in unison and two parts. Students also practice music reading and listening skills through the use of movable do solfege and rhythm syllables.

Beginning Strings is open to students in grades five and six. Students learn how to assemble, hold, play, and care for their instruments. No previous instrumental experience is necessary. During the course of the year, students learn note reading, fingering, rhythm, bowing, intonation, dynamics, posture, and appropriate music. By the end of the year, students play beginning-level music as an ensemble. Success in this course requires practice as homework. Students may choose either violin or cello; students wishing to play viola are required to seek additional support through private lessons.

Lower School: Grade Six

Art

Grade six students draw and explore positive and negative space. They learn about folk art and create a painted one-stringed musical instrument as well as a ceramic face pot. They explore Japanese and Chinese brush painting and create their own work in a similar style.

Grade six students explore the fundamentals of art-making on a deeper level. Projects connect students to the elements of design with specific focuses on space, color, texture, line, color and value. In the studio, students engage with a wide variety of materials and techniques, ranging from crafting ceramic face jugs to functioning one-stringed instruments. Art history is emphasized throughout the year, culminating with a unit based on American Folk Art.

Students who successfully complete the sixth grade art program will be able to:

- Use media and tools appropriately
- Listen to and understand multi-step directions
- Understand principles of proportion and design
- Understand African-American folk art and artists
- Care for their materials and maintain a clean workspace

Drama

Sixth graders develop skills essential to working in theater, including building a strong ensemble, developing original characters, and building effective rehearsal techniques. Students practice interpreting stories through various media, empathize with diverse characters, and use theater to educate, entertain, and inspire. The course culminates in a performance of the sixth grade play, where students showcase what they learned.

Athletics

The fifth and sixth grade athletic program at Fay is designed as a bridge from the physical education curriculum taught in Kindergarten through grade four to interscholastic athletics in grade seven. The focus of this program is to introduce students to a variety of activities, provide sport-specific instruction, foster appropriate levels of competition, and provide opportunities for individuals to learn about teamwork, sportsmanship, and fair play. The program creates a fun and challenging environment where players have the opportunity to learn and grow as athletes. Coaches focus on technique and skill development and, as competency increases, tactical elements and game situations.

The three primary components of the program are:

- Instructional: Sport-specific instruction focused on skill development, technique, knowledge and understanding of rules, team concepts, and fair play
- Intramural: Competition against peers to build teamwork and camaraderie within the sport setting
- Interscholastic: Appropriate levels of competition against peer schools to provide a fun and positive experience

Sports offered:

- Fall: cross country, field hockey, flag football, soccer
- Winter: basketball, multi-sport, squash, wrestling, dance
- Spring: baseball, lacrosse, softball, multi-sport

Wellness

Sixth grade Wellness classes provide students with the tools they need to navigate the increasing social and emotional complexities of adolescence. As they prepare for the transition to Upper School, students engage in meaningful discussions and activities that promote self-awareness, decision-making, and personal well-being. Students practice:

- Understanding influences from peers and developing confidence in personal choices
- Learning strategies to balance school, activities, and rest for overall health
- Practicing techniques to handle academic and social pressures in healthy ways
- Recognizing and respecting personal and social boundaries
- Developing skills to handle challenging or awkward interactions
- Exploring the impact of self-care on overall well-being

Upper School Overview

Fay's Upper School consists of grades seven through nine. Students from across the United States and more than 25 countries come here to participate in a learning community that is internationally respected for its excellent academics, its commitment to tradition and innovation, the high quality of its boarding program, and its strong secondary school counseling program.

From the seventh grade onward, students experience increasingly demanding academic requirements. Every student works closely with a faculty advisor who serves as a counselor and point person for the student's team of teachers.

Upper School students take courses on a six-day rotation, in an engaging program that includes mathematics, English, history, science, world language, Creators, art, music, wellness, and athletics. Students are assigned to some courses based on their grade level; students are enrolled in other courses (such as math and world language) based on their level of proficiency. Additionally, some courses are open to students as electives.

Upper School students participate in athletics every afternoon, choosing a different sport or activity each trimester. With over 20 sports to choose from, students can explore new sports or continue to hone their skills in a familiar sport.

The program is complemented by a rich selection of activities, which range from dance and drama to robotics, outdoor adventures, and our Creators classes in the Center for Creativity & Design. Upper School students also participate in service learning and enjoy a variety of social events, outdoor activities, and supervised weekend trips to nearby Boston to visit its world-class museums and cultural attractions.

Grade Seven

Grade Seven Overview

Our seventh grade includes day students from Fay's Lower School, new day students from surrounding communities, and seventh grade boarding students from around the nation and the world. Courses in math, English, history, and science are required for all seventh graders, and differentiated instruction in small classes allows close teacher-student connections to flourish. Mathematics and world language placements ensure that students study material appropriate to their skill level and move at a pace that allows them to build on previous knowledge and increase depth of understanding. All seventh graders take art, music, and wellness. In addition, students are immersed in our Creativity and Design Program, with Creators Class, a course that takes place in our Center for Creativity & Design that focuses on using the design process to make hands-on projects with both simple and sophisticated tools, such as 3D printers and laser cutters. Throughout seventh grade, a focus on critical thinking, introspection, and problem solving helps students establish a solid academic foundation.

Mathematics

Based on a student's ability to work independently and persevere with problems, along with their past mathematical performance, they are placed into one of our Upper School math courses. We recognize that students at this age develop at different rates and appreciate that there is more than one path through the math curriculum; for that reason, we conduct careful student placement in the spring of each year to ensure that each student is appropriately challenged. See page 34 of this guide for a full list of Upper School mathematics courses.

English 7

Seventh grade English stresses the development of writing skills with particular emphasis on well-structured paragraphs and more abstract thinking and writing. Writing with precision is emphasized and practiced through frequent composition assignments. Students focus on identifying and understanding the elements of grammar in their own writing. In the study of literature, students begin to identify themes and their relationship to life experiences as well as examples of figurative language. Students study vocabulary in order to develop a more sophisticated written and spoken command of English.

Students build reading comprehension and analytical skills through their reading, focusing their attention on stories of immigration, homecoming, and belonging, beginning with Jerry Craft's *New Kid* as a summer reading text, and continuing with Adi Alsaid's collection *Come on In* and Julia Alvarez's *Before We Were Free*. Seventh graders are introduced to the work of Shakespeare through an in-depth examination of *A Midsummer Night's Dream*, after which they read a wide selection of myths from Edith Hamilton's classic *Mythology*, many of which are connected to the Ancient World Cultures curriculum. As they read, students learn the main tools of literary analysis, focusing their attention on plot, setting, irony, theme, and character, mood, and the basics of poetic rhythm and meter.

Upper School: Grade Seven

Throughout the year, seventh graders review and expand their grammar skills, with a focus on using parts of speech correctly, varying sentence beginnings, formalizing language, and using proper punctuation and capitalization. Students also explore sentence structure and learn to identify sentence elements such as subjects, predicates, and direct and indirect objects. This grammar instruction, coupled with a workshop-style writing curriculum, cultivates deep thinking and builds confidence in written and oral expression. As with all grades in the Upper School, seventh graders participate in the Upper School Speech Contest and the Scull Essay contest.

Ancient World Cultures

Ancient World Cultures is a comprehensive study of seven different ancient civilizations, each of which made significant contributions to the growth and development of culture around the world. Students study the prehistoric tribes of Ethiopia and the first formal civilization of Mesopotamia; then students explore the cultures, economies, and governments of ancient Egypt, India, Greece, Rome, and China. The year culminates with an in-depth look at the Inca, Aztec, and Mayan peoples of Latin America, focusing on how they laid the cultural foundations for the modern civilizations throughout the region. In addition to looking at the cultural universals of each civilization, students learn the basic geography of each region and explore advancements in art, religion, literature, and architecture. Students practice note-taking, critical thinking, debate, analytical writing, and historical research through class discussions, short essays, and other project-based assessments.

Life Science 7

Upper School science practices have been adopted from the National Resource Council's A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas (2012) and build on the practices from the Lower School. Students who demonstrate success in upper school science courses will be able to:

- Ask questions and define problems
- Construct explanations and design solutions
- Plan and carry out investigations
- Analyze and interpret data
- Use mathematics and computational thinking to solve problems
- Develop and use models
- Participate in evidence-based arguments
- Obtain, evaluate, and communicate information

Life Science introduces students to the basic principles of biology and health science. Students learn to classify living organisms and begin to study relationships between humans and other animals on Earth. They study cell structure and function, and they learn the structure and function of organs and organ systems within the human body. Students learn principles of genetics and explore how genetic variations of traits in a population increase a species' probability of survival. Students study the anatomy of the human body, and they also study the biology of the natural world with an in-depth look at our local water systems. Films, microscope slides, computer simulations, laboratory exercises, and outdoor activities complement the text and help students to build upon

the analytical skills acquired in lower grades. Throughout the year, students produce independent projects that develop problem-solving skills they will use in future science courses.

World Languages

Upon entering the Upper School, students select a world language to study. Students choose from French, Spanish, Mandarin Chinese, and Latin. Placement in all levels is based upon the student's prior experience in the language, teacher recommendations, and a placement test. See page 35 of this guide for a full list of Upper School world languages courses.

Music

The music faculty is committed to the concept of "learning by doing" and recognizes the value of performance in every student's experience. Each year, Upper School students choose a music course from options that include 7th Grade Chorus, Bells, String Ensemble, Band, and Music Exploration. The courses extend the theory and performance skills developed in the Lower School, but students new to Fay will also find that they can succeed in a beginning-level ensemble with little or no previous musical experience. See page 38 of this guide for a full list of Upper School music courses.

Art 7

The seventh grade program is designed to develop students' motor skills, social skills, and visual literacy. Students participate in interdisciplinary and multicultural projects, learn about art history, and take advantage of resources within the school and community. Students learn about the proper care and use of materials and are encouraged to respect the work of others. Students have regular opportunities to practice and refine their drawing skills. Projects include painting, collage, sculpture, printmaking, cut paper, ceramics, and other two- and three-dimensional works. Exhibit opportunities exist in the larger community, our online gallery, and the School.

Students who successfully complete the seventh grade art program will be able to use media and tools appropriately, maintain a clean and productive workspace, and demonstrate understanding of the following concepts:

- Shade and gradient with pencil
- Elements of design
- Basic ceramic construction
- Principles of linocut
- Simple composition building

Drama

Seventh grade drama is a year-long course in which students pursue a holistic exploration of theater arts. As students participate in units on acting, directing, design, and playmaking, they develop an appreciation for the collaborative nature of the theater and an understanding of each essential component of a successful theatrical production. Whenever possible, the course aims to foster cross-disciplinary connections.

Creators Class

Creators Class is a required course that takes place in Fay's Center for Creativity & Design. The course is designed to build each student's creative confidence, perseverance and resilience. The specific projects may change from year-to-year, but the course will focus on the following themes:

- Design thinking, an empathy-based problem solving mindset and process, to help students identify problems and generate solutions
- Physical maker skills that include measuring, cutting, joining and design drafting
- Digital fabrication, to design and build 2D and 3D objects using the school's laser cutter, vinyl cutter, and 3D printing technologies

Through a series of hands-on design briefs, students practice identifying problems, ideating through understanding, crafting, iterating solutions and presenting their ideas to peers and industry experts.

Wellness 7

Seventh grade Wellness classes provide a supportive environment for students to explore important social, emotional, and health-related topics. Classes meet once per rotation and emphasize self-awareness and personal growth; students engage in class discussions and activities that develop skills to navigate adolescence with confidence and empathy. Topics are explored through the lens of diversity, equity, inclusion, and belonging to ensure all students feel seen, heard, and valued. Students practice:

- Understanding personal values, strengths, and how identity shapes experiences
- Developing respect and appreciation for diverse perspectives and backgrounds
- Recognizing and challenging stereotypes to foster inclusivity
- Identifying bullying behaviors, learning intervention strategies, and building a supportive community
- Developing effective communication skills and setting healthy personal boundaries
- Understanding the risks and making informed choices regarding drugs, alcohol, and peer pressure

Athletics

The athletics program takes place every day following academic classes. All students in grades seven through nine are required to participate daily in all three terms. Students choose from an array of interscholastic sports and intramural activities (one per term). Students may try out for competitive interscholastic teams or join an intramural team or activity. However, all students are required to participate in at least one interscholastic sports team each year. See page 43 of this guide for a full list of Upper School athletics options.

Grade Eight

Grade Eight Overview

Eighth grade students benefit from challenging courses that develop essential skills in reading, writing, quantitative reasoning, scientific thought, and world language. English, history, and science courses are standard for all eighth graders, while courses in mathematics and world languages require placement tests. Eighth grade students continue to internalize fundamental skills and habits, such as organization and time management, and they refine their thinking, speaking, reading, writing, and listening abilities throughout the year in all classes. Students also focus on problem solving and design with our Creators Class, a required course that takes place in our Center for Creativity & Design. Courses in visual and performing arts and wellness class round out students' schedules. Students have numerous opportunities to develop and demonstrate academic and personal independence throughout the year as they practice essential life skills such as discernment, adaptability, and collaboration.

Mathematics

Students are placed into one of our Upper School math courses based on their ability to work independently and persevere with problems, along with their past mathematical performance. We recognize that students at this age develop at different rates and appreciate that there is more than one path through the math curriculum; for that reason, we conduct careful student placement in the spring of each year to ensure that each student is appropriately challenged. See page 34 of this guide for a full list of Upper School mathematics courses.

English 8

Eighth grade English emphasizes literature, grammar, writing, and vocabulary. Students read from a selection of major literary works that in recent years have included *Hope Against Hope* by Sheena Wilkinson, *Maus I* by Art Spiegelman, and Shakespeare's *Romeo and Juliet*. Other readings are selected to complement the Modern World Cultures history course, such as an Irish poetry unit and an interdisciplinary project on Irish poetry that is completed in both History and English.

Through discussion and reflection, students participate in a close examination of literature and reflect on each book or play with an analytical essay. Students focus on using grammar as a tool for good writing, and they practice incorporating more complex sentence structures, including verbal phrases and subordinate clauses. As with all grades in the Upper School, eighth graders participate in the Upper School Speech Contest and the Scull Essay contest.

Writing assignments are frequent, and students learn to move from the free writing stage, through the process of revision, to final drafts of longer essays. The emphasis in class discussions and in student essays is on a more abstract examination of the work rather than on plot description, and students learn to identify themes and literary devices as well as specific details in the reading. Students study vocabulary in context in order to

Upper School: Grade Eight

develop a more sophisticated written and spoken command of the English language.

Modern World Cultures

Modern World Cultures is a study of 20th-century post-colonial civilizations. Students examine what happened as the colonial era ended and new societies and cultures evolved in places like Ireland, South Africa, Ireland, East Asia, and Latin America. Students learn about the cultural, economic, and political roots of each society's independence movement before examining each nation's transition to autonomy. Students focus on the challenging and sometimes rocky process of state-building, including systems of justice, government structure, and cultural influences. Students annotate, interpret, and analyze primary source documents; identify key terms and seminal themes; and use evidence to support written and verbal arguments. Students participate in class discussions, writing activities, and project-based assessments to develop their analytical, critical, and creative thinking skills.

Physical Science 8

Upper School science practices have been adopted from the National Resource Council's *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas* (2012) and build on the practices from the Lower School. Students who demonstrate success in upper school science courses will be able to:

- Ask questions (for science) and define problems (for engineering)
- Construct explanations (for science) and design solutions (for engineering)
- Plan and carry out investigations
- Analyze and interpret data
- Use mathematics and computational thinking to solve problems
- Develop and use models
- Participate in evidence-based arguments
- Obtain, evaluate, and communicate information

Physical Science is a lab-based course that covers foundational content related to physics and chemistry. It includes three units: motion and forces, chemistry, and coding. At the beginning of the year, students learn about motion and forces, starting with motion as related to a position, building to define speed and acceleration, and ending with an examination of the force of gravity. Through focused laboratory experiments, students learn to isolate variables, work with large data sets, graph findings, and extract information from graphs. In the winter term, students learn about the structure and properties of matter and chemical reactions through the study of chemistry principles. In the final term, students learn how to write code to manipulate movement and collect data. Students design investigations where they control variables to provide evidence for the law of conservation of mass and energy, while taking into account variables that affect the rates of reactions.

World Languages

Upon entering the Upper School, students select a world language to study. Students choose from French, Spanish, Mandarin Chinese, and Latin. Placement in all levels is based upon the student's prior experience in the language, teacher recommendations, and a placement test. See page 35 of this guide for a full list of Upper School world languages courses.

Music

The music faculty is committed to the concept of "learning by doing" and recognizes the value of performance in every student's experience. Each year, Upper School students choose a music course from options that include Fay School Chorus, Bells, String Ensemble, Band, and Music Exploration. The courses extend the theory and performance skills developed in the Lower School, but students new to Fay will also find that they can succeed in a beginning-level ensemble with little or no previous musical experience. See page 38 of this guide for a full list of Upper School music courses.

Art

The Upper School visual arts curriculum encourages personal expression and fosters the development of cognitive, motor, and social skills. Interdisciplinary and multicultural projects, art history, and resources within the school and community are integrated through the program.

Students learn basic art skills as well as the elements and principles of design. In all grades, students have regular opportunities to draw from life and imagination; they also work in a range of media that includes paint, collage, ceramics, cut paper, sculpture, digital media, and other two- and three-dimensional media. Eighth and ninth graders have the option to participate in art electives that allow them to focus on specific areas of interest. See page 39 of this guide for a full list of Upper School art electives.

Creators Class

Creators Class is a required course that takes place in Fay's Center for Creativity & Design. The course is designed to build each student's creative confidence, perseverance and resilience. The specific projects may change from year to year, but the course will focus on the following themes:

- Design thinking, an empathy-based problem solving mindset and process, to help students identify problems and generate solutions
- Physical maker skills that include measuring, cutting, joining and design drafting
- Digital fabrication, to design and build 2D and 3D objects using the school's laser cutter, vinyl cutter, and 3D printing technologies

Through a series of hands-on design briefs, students practice identifying problems, ideating through understanding, crafting, iterating solutions and presenting their ideas to peers and industry experts.

Coding for Apps and Games and **Robotics** are elective courses available to eighth and ninth grade students. See page 41 of this guide for detailed course descriptions.

Wellness 8

Eighth grade Wellness classes provide students with the knowledge and skills to navigate the challenges of adolescence with confidence and responsibility. Through discussions, activities, and self-reflection, students explore a wide range of topics that promote personal well-being, healthy relationships, and informed decision-making. Students explore:

- The importance of sleep, stress management, and mindfulness practices
- Respect, inclusivity, and understanding diverse perspectives
- Developing communication skills and setting personal boundaries
- Understanding how to keep oneself safe in various situations
- Analyzing how outside influences, including social media and advertising, shape choices
- Building confidence in resisting negative peer influences
- Understanding dating, relationship violence, and the importance of mutual respect

Athletics

The athletics program takes place every day following academic classes. All students in grades seven through nine are required to participate daily in all three terms. Students choose from an array of interscholastic sports and intramural activities (one per term). Students may try out for competitive interscholastic teams or join an intramural team or activity. However, all students are required to participate in at least one interscholastic sports team each year. See page 43 of this guide for a full list of Upper School athletics options.

Grade Nine

Grade Nine Overview

Ninth graders at Fay experience a challenging and stimulating high school-level curriculum that thoroughly prepares them for tenth grade in a secondary school. In English, students delve into classics, develop a more sophisticated style of writing, and hone their public speaking skills. Ninth graders take biology and Topics in Modern American History, and multiple math courses are offered, including Algebra, Geometry, and Pre-Calculus. Students may choose to study French, Spanish, Mandarin Chinese, or Latin, and they have regular opportunities to practice language skills with Fay classmates from around the world. Students can apply to take Advanced Design Portfolio, taking advantage of Fay's Center for Creativity & Design for hands-on learning across all subjects, or Advanced Studio Art. By virtue of their seniority in the School and intellectual maturity, ninth graders take an active role in their learning and enjoy a collegial rapport with teachers. Alumni of Fay's Ninth Grade Program cite this unique teacher-student dynamic as a key feature of their ninth grade experience.

Mathematics

Students are placed into one of our Upper School math courses based on their ability to work independently and persevere with problems, along with their past mathematical performance. We recognize that students at this age develop at different rates and appreciate that there is more than one path through the math curriculum; for that reason, we conduct careful student placement in the spring of each year to ensure that each student is appropriately challenged. See page 34 of this guide for a full list of Upper School mathematics courses.

English 9

In ninth grade English, students focus on the advanced study of literature, including more complex literary devices and the identification of major literary movements, along with advancing their skills in grammar, writing, and vocabulary. Students develop a more sophisticated style of writing as they incorporate a variety of sentence structures and verbal phrases. They also explore different types of writing, including expository essays, rhetoric, analysis, and literary review.

Students explore a range of texts from twentieth-century America, including poetry starting with the Harlem Renaissance and going through contemporary works while also interrogating plays and novels from Orwell, Miller, Bradbury, and Hansberry. They also participate in a survey of Shakespeare's productions and end the year taking a look at the films of the 1980s. Ninth graders also read required summer books that connect to the first units of the year. The summer reading selection is the focus of our first discussions as well as a reference point for students in other disciplines such as history.

By the end of grade nine, students will have a sound knowledge of figurative language, especially metaphors and similes, symbols, allusions, image, allegory, and personification. Students possess

Upper School: Grade Nine

an understanding of how authors use these devices to convey depth of meaning, as well as how they can incorporate figurative language to enhance their own personal and analytical writing. Students know how to craft a thesis statement and support it with thorough analysis and specific textual references. As with all grades in the Upper School, ninth graders participate in the Upper School Speech Contest and the Scull Essay contest.

Topics in Modern American History (TMA)

In Topics of Modern American History (TMA), ninth graders explore the cultural, socio-economic, political, and foreign policy development of the United States from the end of World War II through the end of the Cold War. Focusing on specific time periods 1945-1960, 1960-1975, 1975-1990, students explore the questions, events, and individuals that shaped the actions, attitudes, expectations, and ideologies of modern America. Among the topics students examine over the course of the year are the rise of the United States as a global superpower and the Cold War rivalry with the Soviet Union, the Civil Rights movement, the 1960s counterculture, and the impacts of Reaganomics and the War on Drugs in the 1980s.

In TMA, students continue to develop their critical and analytical thinking skills, using the historical concepts of significance, context, perspective, cause and effect, continuity, and agency to examine primary and secondary source material. Class discussion, writing, and projects allow students to demonstrate mastery of the content and apply their understanding skills in creative ways.

Biology 9

Upper School science practices have been adopted from the National Resource Council's *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas* (2012) and build on the practices from the Lower School. Students who demonstrate success in upper school science courses will be able to:

- Ask questions (for science) and define problems (for engineering)
- Construct explanations (for science) and design solutions (for engineering)
- Plan and carry out investigations
- Analyze and interpret data
- Use mathematics and computational thinking to solve problems
- Develop and use models
- Participate in evidence-based arguments
- Obtain, evaluate, and communicate information

Biology 9 is a full-year, laboratory-intensive high school course based on the Next Generation Science Standards. Students focus on broad themes and develop deep conceptual understanding of foundational ideas in biology, including organismal structure and function, heredity, evolution, and ecology. Through student-led research, digital texts, collaborative learning teams, and exposure to primary sources, students participate in experimental design, scientific writing, data analysis and interpretation, and research. Students develop skills to prepare for future secondary level school work, such as note taking, study strategies, and learning in

a digital classroom environment.

Throughout the year, biological concepts and unifying themes come to life as pressing real-world issues are brought into the classroom, such as genetic engineering, stem cell technology, climate change, intelligent design, and science denialism. Students learn to observe the world from a scientific perspective, using scientific methodology to produce reliable data. As they study biochemistry, students learn why organismal structure and function is essential to understanding organismal survival. Cell biology introduces students to the cell as the basic unit of life, and investigations focus on how cell structure enables life processes to occur. Students also study genetics and evolutionary biology, focusing on the mechanisms of inheritance, the process of evolution, and the unity and diversity of life on Earth. Students investigate organismal diversity and how interconnected systems work together to sustain life. To finish the year, students delve into ecology, exploring organismal interactions with the physical environment around Fay. During the winter term, ninth grade biology students design their own course of study to plan, iterate, and execute a scientific research project while learning valuable research and project management skills along the way. Connections with people in the field include scientists, doctors, and designers.

World Languages

Upon entering the Upper School, students select a world language to study. Students choose from French, Spanish, Mandarin Chinese, and Latin. Placement in all levels is based upon the student's prior experience in the language, teacher recommendations, and a placement test. See page 35 of this guide for a full list of Upper School world languages courses.

Music

The music faculty is committed to the concept of "learning by doing" and recognizes the value of performance in every student's experience. Each year, Upper School students choose a music course from options that include Fay School Chorus, Bells, String Ensemble, Band, and Music Exploration. The courses extend the theory and performance skills developed in the Lower School, but students new to Fay will also find that they can succeed in a beginning-level ensemble with little or no previous musical experience. See page 38 of this guide for a full list of Upper School music courses.

Art

The Upper School visual arts curriculum encourages personal expression and fosters the development of cognitive, motor, and social skills. Interdisciplinary and multicultural projects, art history, and resources within the school and community are integrated through the program.

Students learn basic art skills as well as the elements and principles of design. In all grades, students have regular opportunities to draw from life and imagination; they also work in a range of media that includes paint, collage, ceramics, cut paper, sculpture, digital media, and other two- and three-

dimensional media. Eighth and ninth graders have the option to participate in art electives that allow them to focus on specific areas of interest. Ninth grade students have the option to apply for Advanced Studio Art, a full-year immersion in the art studio that is graded as a full academic course on par with math, English, history, science, and world languages. Students are selected for Advanced Studio Art based on portfolio review by the visual arts faculty. Students complete work in two-dimensional media, including drawing, pastels, drypoint etching, mixed media, and acrylic painting. See page 39 of this guide for a full list of Upper School art electives.

Creativity and Design

Ninth grade students may explore Advanced Design Portfolio, a year-long elective designed to build each student's design skills and understanding of professional design tracks through the creation of design objects and systems. Coding for Apps and Games and Robotics are elective courses available to eighth and ninth grade students. See page 41 of this guide for detailed course descriptions.

Wellness 9

Ninth grade Wellness classes focus on leadership development, self-awareness, and preparing students for the transition to secondary school. This course helps students navigate the challenges of adolescence while equipping them with the skills to make responsible, informed decisions. It provides a structured, supportive environment where ninth graders can explore their leadership potential, develop confidence, and build the skills necessary for a successful transition to their next chapter. Students participate in a leadership retreat at the beginning of the year; over the course of the year, they explore:

- Individual leadership styles and how they interact with others
- Emotions tied to leaving Fay School and preparing for new experiences
- Teen mental health and ways to support oneself and others
- Making good decisions about drug and alcohol use, including drinking and driving
- The importance of consent in healthy relationships
- Reflecting on personal growth and preparing for life beyond Fay

Athletics

The athletics program takes place every day following academic classes. All students in grades seven through nine are required to participate daily in all three terms. Students choose from an array of interscholastic sports and intramural activities (one per term). Students may try out for competitive interscholastic teams or join an intramural team or activity. However, all students are required to participate in at least one interscholastic sports team each year. See page 43 of this guide for a full list of Upper School athletics options.

Upper School: Mathematics

Upper School Mathematics Courses

Upper School Math Overview

Students are placed into one of our Upper School math courses based on their ability to work independently and persevere with problems, along with their past mathematical coursework and performance, and standardized test scores. Students in each course engage in productive struggle while tackling problem sets as part of our problem-based learning model. A major goal of all Upper School math classes is to help students learn to write, interpret, and discuss mathematical arguments.

Students in grade seven study pre-algebra topics in courses designed to develop an understanding of mathematics as a system of thought. After Pre-Algebra or Pre-Algebra Advanced, students take Algebra 1, Algebra 1 Advanced, Algebra 1 Part 1 and Part 2. Following coursework in algebra, students take Geometry or Geometry Advanced, which is then followed by Algebra 2.

Student placement is evaluated in the fall and spring of each year, recognizing that students at this age develop at different rates and appreciating that there is more than one path through Fay's math program.

Pre-Algebra

This math course is designed to consolidate computational skills, enhance understanding of underlying mathematical concepts, and extend the skills of working with proportion, percent, linear equations, and geometric relationships. Students gain proportional reasoning skills and become proficient with integer operations.

Pre-Algebra Advanced

This course covers a sequence of topics similar to Pre-Algebra, but it covers more complex problems, and it requires a demonstration of some independence in mathematical thinking. It is designed for students who have already mastered computational skills, who have demonstrated the ability to think more abstractly about mathematics, and who are self-motivated to work independently to solve problems.

Algebra 1

This is a complete Algebra 1 course. Topics in this class include proportional reasoning; writing, solving and graphing linear equations and inequalities; systems of equations; functions and their transformations; non-linear functions; and quadratic equations and solutions. Application of skills, procedures, and concepts to solve real world problems is an integral part of this course. An important goal of this course is for students to begin to see algebra as a language to model situations, in addition to solidifying the ability to manipulate symbols.

Algebra 1 Advanced

This course covers the same sequence of topics as Algebra 1, but it covers more in-depth and complex problems and requires a demonstration of independence and flexible thinking in mathematics. Students will learn through theory and abstract thinking, problem-solving, application, and investigation.

Algebra, Part 1 and Part 2

This course covers the topics of the complete Algebra 1 course over two school years. It is offered to eighth and ninth graders who benefit from a more supportive pace to learn new topics and who need more guidance in learning how to tackle each new problem and recognize which skills to use when confronted with an unfamiliar format. In Part 1, concepts include data exploration; proportional reasoning; direct and inverse variation; writing, solving and graphing linear equations and inequalities; and systems of linear equations. During year two, in Part 2, concepts include exponential growth and decay, rational numbers and radicals, and a full study of quadratic equations and their solutions. The textbook for this class is the same as the one used in the one-year Algebra I course.

Geometry/Geometry Advanced

Geometry is a secondary school course that deepens students' understanding of plane and solid geometric figures while fostering their abilities to analyze, justify, and communicate information about geometric relationships and write geometric proofs. Topics include congruent and similar triangles, parallel and perpendicular lines, right triangle trigonometry, polygons, circles and solids, transformations, and constructions. Algebra topics are integrated throughout the course to provide a solid and broad foundation for advanced mathematics courses. Geometry has a balanced focus on inductive and deductive reasoning, providing students with some practice with proofs. The Geometry Advanced course is for more independent learners and is a proof-based curriculum focusing on the development of inductive reasoning. Students in both courses use technology such as Geogebra or Desmos to demonstrate understanding of the geometry topics.

Algebra 2

This course is a full-year study of advanced algebra for students who have completed Algebra 1 and a formal geometry course. Evidence of readiness and approval by the chair of the Mathematics Department is required to enroll. Topics include data analysis, sequences and recursion, functions, trigonometry, matrices, exponential and logarithmic functions, and conic sections. Students also study irrational and complex numbers, polynomial equations, analytic geometry, and statistics. A TI 84 Plus graphing calculator is required in order to fully explore functions.

Pre-Calculus

Pre-Calculus is a full-year course that prepares students for Calculus. Drawing on algebra, geometry, and arithmetic, the course synthesizes students' prior mathematical work while introducing ideas of calculus. Topics include analysis of polynomial, rational, exponential, logarithmic, and trigonometric functions; complex numbers; mathematical induction; vectors in the plane; polar geometry; analytic geometry and conic sections; statistics, the normal distribution, and basic combinatorics; and area under curves. Moving at a challenging pace, the course emphasizes conceptual understanding, problem solving, and proof.

Upper School World Languages Courses

World Languages Overview

Upon entering the Upper School, students select a world language to study. Students choose from French, Spanish, Mandarin Chinese, and Latin. Placement in all levels is based upon the student's prior experience in the language, teacher recommendations, and a placement test.

French

French 1A

French 1A is an introductory course that provides students with practice in developing skills in the four major areas of the language: listening, speaking, reading, and writing. Students focus on listening comprehension and the use of basic conversational patterns of French speech, which they practice through various communication activities. Students also learn elementary grammar and work with appropriate reading materials. Hands-on projects throughout the year encourage a heightened awareness of the French-speaking world, and class work incorporates music and videos to familiarize students with the sound system and sentence structure of the French language. Students learn greetings, time, dates, school and school vocabulary, family vocabulary, and everyday activities. Students also learn regular verbs in the present tense, commonly used irregular verbs, and adjectives.

French 1B

French 1B is the continuation of the French 1A program. Complex sentence patterns and wider vocabulary base broaden the four basic skills of listening, speaking, reading and writing. Vocabulary units and communicative activities focus on shopping for clothing, restaurant, sports, leisure activities, weather, and celebrations. Students continue to learn the present tense of regular and irregular verbs and study the passé composé with avoir. Students develop cultural awareness through music, basic newscasts, fables, poetry, and thematic projects.

French 2A

French 2A is a second-year course in which students continue to develop listening comprehension, speaking, reading, and writing skills. The course integrates information about French culture through short stories and poems. Students are expected to communicate in French through sustained speech and write using compound and complex sentences in the present and past. Students expand on their knowledge of irregular verbs by adding idiomatic expressions, and they complete a thorough study of the passé composé, imparfait, adverbs, and object pronouns. Students practice applying their knowledge of grammar and verb forms to their written expression.

French 2B

French 2B is a continuation of French 2A in which students are expected to communicate in the target language. This course continues the development of listening comprehension, speaking,

reading and writing skills. Students expand on previously learned vocabulary and apply their knowledge of grammar and verb forms to their written expression. Students complete an in-depth study of past tense narration, reflexive verbs in the present, past and as infinitives, order of object pronouns, and article choice. In speaking, students interact with each other in situational dialogues, using sustained speech patterns and incorporating idiomatic expressions. The course integrates cultural information about the French-speaking world through short stories, newscasts, and poems.

French 3A

French 3A is a continuation of French 2B, where students are immersed in the language at all times and expected to communicate in the language as well. Students in this course have met the expectations of the level one and two courses and are well prepared for more advanced and complex language structures. Students learn and practice new vocabulary through pictures and written responses to open-ended questions, allowing for creativity, expansion and growth. Students are exposed to a variety of cultural practices and have the opportunity to recreate them and to experience them in class. Students work on authentic projects that afford them the opportunity to step outside their comfort zones and to try something new. The four modalities of reading, writing, speaking, and listening are given equal emphasis and are often brought to the classroom through short stories and readers, magazines, board games, and video programs. Colloquialisms and proverbs become a part of the daily routines and communication, giving students a real-world experience. Students study grammatical concepts and learn the present perfect, pluperfect, future perfect, conditional perfect commands, present progressive, present subjunctive, and the present perfect.

Spanish

Spanish 1A

Spanish 1A is an introductory course that provides a foundation for the development of listening, speaking, reading, and writing. The class is conducted primarily in the target language, and students are encouraged to communicate in Spanish, thus providing ongoing practice with listening comprehension. This course covers basic vocabulary that allows students to communicate effectively by asking and answering questions, describing situations, and expressing needs. Students learn a variety of grammatical concepts so they can communicate in the present tense. As the year progresses, students build upon their foundations in vocabulary and grammar to develop speaking, reading and writing skills. Students gain an appreciation of the cultural diversity within Spanish-speaking countries as they reflect on their own perspectives and experiences. Students also engage in a variety of authentic celebrations that foster an appreciation for the cultures of Spanish-speaking places.

Spanish 1B

Spanish 1B addresses the elements of the language covered in Spanish 1A, but more in-depth, for students with a foundational background in the study of Spanish. Students learn vocabulary

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related to travel, clothes, and hobbies. Students study stem-changing and irregular verbs in the present tense, direct and indirect object pronouns, the present progressive tense, the difference between *ser* and *estar* as well as *saber* and *conocer*, and the preterite tense of regular verbs. Cultural awareness is developed through map study, projects, films, and selected readings. Active participation is necessary and facilitates the development of speaking, listening, reading, and writing skills

Spanish 2A

Spanish 2A is conducted in Spanish and is open to students who have demonstrated a mastery of basic grammar, verb forms, and tenses and who have shown proficiency through a placement test. Placement is determined by the World Languages Department. In addition to reinforcing and broadening listening comprehension, speaking, reading and writing skills, the course integrates cultural and historical information about the Spanish-speaking world through short stories, and poems. In this course, students explore the subtleties of language with an emphasis on the differences between the imperfect and preterite tenses, *por* and *para*, and the passive voice for impersonal information or announcements. Students are expected to communicate in Spanish through sustained speech and are required to write essays using compound and complex sentences in the imperfect, present progressive, simple present, and preterite tenses. Students produce a variety of written texts, including narratives and informative essays. In speaking, students interact with each other in situational dialogues, using sustained speech patterns and incorporating idiomatic expressions.

Spanish 2B

Spanish 2B is a continuation of the Spanish 2A course and is open to students who have demonstrated proficiency on a placement test. Placement is determined by the World Languages Department. This course moves at an accelerated pace, continuing the development of listening comprehension, speaking, reading and writing skills. Students are expected to apply their knowledge of grammar and verb forms to their written expression. Students produce a variety of written texts including narratives and informative essays. In speaking, students interact with each other in situational dialogues, using sustained speech patterns and incorporating idiomatic expressions. In addition to reinforcing and broadening the four language skills, the course integrates cultural and historical information about the Spanish-speaking world through short stories, newspaper articles, and poems. In this course, students develop a deeper understanding of the history, literature, and traditions of the Hispanic world via selected readings from a variety of literary genres. Students are expected to communicate in Spanish through sustained speech and are expected to write essays using compound and complex sentences in the future, imperfect, imperfect progressive, present, perfect, preterite tenses, and conditional mood.

Spanish 3A

Spanish 3A is a continuation of Spanish 2B, where students are immersed in the language at all times and expected to communicate in the language as well. Students in this course

have met the expectations of the level one and two courses and are well prepared for more advanced and complex language structures. Students learn and practice new vocabulary through pictures and written responses to open-ended questions, allowing for creativity, expansion and growth. Students are exposed to a variety of cultural practices and have the opportunity to recreate them and to experience them in class. Students work on authentic projects that afford them the opportunity to step outside their comfort zones and to try something new. The four modalities are given equal emphasis, and are often brought to the classroom through newspapers, magazines, and video programs. Additionally, colloquialisms and proverbs become a part of the daily routines and communication, giving students a real-world experience. Students study various grammatical concepts and learn the present perfect, pluperfect, future perfect, conditional perfect commands, present progressive, present subjunctive, and the present perfect.

Chinese

Chinese 1A

Chinese 1A is an introductory course to Mandarin Chinese language and culture for students in grades seven, eight, and nine with limited or no prior language experience. The *Discovering Chinese 1* textbook is used for this course. Chinese pronunciation is taught through Pinyin, the Chinese phonetic system. Students are introduced to the Chinese writing system by studying the basic strokes and development of Chinese characters. Four language skills (listening, speaking, reading, and writing) are emphasized throughout this course. Topics include but are not limited to greetings, locations, numbers, family, countries and nationalities, food, school life, time, date, and days of the week. In addition, Chinese culture and traditions are integrated into this course through the study of Chinese art, history, geography, folktales, films, music, and holiday celebrations.

Chinese 1B

Chinese 1B is a continuation of Chinese 1A for students in grades seven, eight, and nine using the textbook *Journeys to Chinese Proficiency Level 1*. With an increased level of complexity, spoken Mandarin and written characters are emphasized throughout the course. Topics include greetings, family, nationalities, professions, hobbies, school work, daily routines, and invitations. This course focuses on customs and cultural understanding as students continue to build their Mandarin grammar foundation, expand vocabulary, improve character writing, and enhance their speaking skills. Essential grammar and sentence patterns are introduced to enhance the students' writing skills. At this level, students are expected to write longer and more complex sentences and paragraphs using transitional expressions. Chinese culture and traditions are integrated into this course through films, music, classic poems, and holiday celebrations.

Chinese 2A

Chinese 2A is a continuation of Chinese 1B. The textbook is *Journeys to Chinese Proficiency Level 2*. This rigorous and challenging course focuses on reinforcing and improving students' proficiency level. Different sentence patterns, more

complex sentence structures, various transition words, and a larger vocabulary are introduced. Topics include shopping, hosting guests, student life, and asking for and giving directions. Chinese culture and traditions are integrated into this course through classic poems, films, music, and holiday celebrations.

Chinese 2B

Building on Chinese 2A, Chinese 2B delves deeper into linguistic skills, where students refine their understanding of complex sentence structures, acquire advanced vocabulary, and engage with nuanced grammatical concepts. The textbook is *Journeys to Chinese Proficiency Level 3*. Topics include nature, cultural events, weather, health, and transportation. With a focus on fostering communicative competence and cultural awareness, Chinese 2B aims to equip students with the necessary tools and knowledge to navigate real-life situations with confidence and fluency in the Chinese language.

Chinese 3A

Chinese 3A is a continuation of Chinese 2B. In this course, students further develop real-life communicative skills while discussing topics related to everyday life and expanding their knowledge of grammatical structures. The primary textbook is *Integrated Chinese, Volume 2*. In addition to building on themes introduced in Level 2B, new topics include, but are not limited to, asking for and giving directions, renting a place, and planning itineraries. Students are expected to use a wider range of adverbs and conjunctions to produce more complex and nuanced sentences.

Latin

Latin 1A

Latin 1A is an introductory course to the Latin language and Roman history and culture using level 1 of *Latin for the New Millennium* and its online platform *Lumina*. Students study nouns of the five declensions, the four conjugations of verbs in the indicative active, and passive. Students also study other basic grammatical structures including positive, comparative, and superlative adjectives, adverbs, and pronouns. Students learn effective strategies for reading and translating Latin texts of increasing difficulty. They employ proper pronunciation of Classical Latin through reciting passages and composing dictations. Through projects, students become acquainted with the daily life, culture, and history of the Ancient Romans.

Latin 1B

Latin 1B is a continuation of skills and language taught in Latin 1A. Students read and translate passages from the second half of level 1 *Latin for the New Millennium* textbook and continue using the corresponding online platform *Lumina*. Building on Latin 1A material, students learn participles, imperatives, infinitives, deponent verbs, pronouns, and other complex grammatical structures. These are used in the proper translation and comprehension of their readings. Students develop a deeper understanding of Roman life by investigating ancient political, social, and economic structures while also making connections to early American political thought.

Latin 2A

Latin 2A solidifies students' ability to read, write, and speak Latin. Using level 2 of *Latin for the New Millennium* and the corresponding online platform, *Lumina*, students learn the subjunctive mood, gerunds, and gerundives to better examine and understand authentic texts from Roman authors such as Ovid, Cicero, Frontinus, and Phaedrus. Using these texts, students become even more familiar with the vocabulary and figurative language employed by historians, poets, and prose writers, deepening their understanding of sophisticated grammar constructions and syntax. Stoicism, ethics, and justice are central themes of the year.

Latin 2B

Latin 2B sharpens students' analytical skills by reading and translating seminal texts such as Caesar and Vergil. Completing the level 2 *Latin for the New Millennium* textbook, students develop a solid and detailed foundation of Latin and practice daily conversing and articulating their thinking and reasoning for their translations and constructions. Through this process, students continue developing a trained classical mind that questions, listens, contemplates, shares, and debates.

Upper School: Music

Upper School Music Courses

Music Overview

The music faculty is committed to the concept of “learning by doing” and recognizes the value of performance in every student’s experience. Each year, Upper School students choose a music course from an array of options that include Seventh Grade Chorus, Fay School Chorus, Bells, String Ensemble, Band, and Music Exploration. The courses are designed to extend the theory and performance skills developed in the Lower School, but students new to Fay will also find that they can succeed in a beginning-level ensemble with little or no previous musical experience. See the detailed course descriptions below.

Seventh Grade Chorus

Fay’s Seventh Grade Chorus is open to all seventh grade students of any singing ability. Students build on skills learned in the Lower School by studying the rhythms, intervals, and scales of the year’s repertoire. The Seventh Grade Chorus typically performs music in two- or three-part harmony representing a variety of historical periods and styles. The Seventh Grade Chorus also performs at least one piece in a language other than English each year. Performances are scheduled throughout the year for on-campus events. Motivated singers are encouraged to audition for MMEA’s Central District Honors Choir.

Fay School Chorus

Fay School Chorus is open to all students of any singing ability in grades eight and nine. Students build on skills learned in Seventh Grade Chorus by studying the rhythms, intervals, and scales of the year’s repertoire. Fay School Chorus typically sings music in three- or four-part harmony representing a variety of historical periods and styles. Performances are scheduled throughout the year for on-campus events. Motivated singers are encouraged to audition for MMEA’s Central District Honors Choir.

Chamber Singers

Fay’s Chamber Singers is open to advanced singers in grades eight and nine. The group is made up of both upper- and lower-voiced singers who have auditioned for and been accepted into the group. Members of Chamber Singers are expected to develop their musicianship and musicality to a high level. Students in Chamber Singers must be a part of another one of Fay’s music ensembles. Chamber Singers typically perform in three- and four-part harmony at events both on and off campus. Motivated singers are encouraged to audition for MMEA’s Central District Honors Choir or Massachusetts All-State Choir.

Bell Ensemble

Fay’s Bell Ensemble is open to all students in grades seven, eight, and nine. No previous ringing experience and all those interested in performing in this unique music ensemble are encouraged to join. The Bell Ensemble focuses on learning basic ringing techniques and sight-reading skills. Ringers in the Bell Ensemble work closely together to perform three- and four-octave arrangements of repertoire representing a variety of historical

periods and styles. Performances are scheduled throughout the year for on-campus events.

Fay Bells

Fay Bells is open to students in grade eight and nine who have been selected by the director and have completed Bell Ensemble. This class is for more experienced and skilled ringers. Students practice more advanced techniques, and the repertoire is more challenging. Students in this group are more accomplished in theory and ear training.

Concert Band

Concert Band is the next step for students who have successfully completed Beginning Band in the Lower School (or the equivalent). Students are placed in this group with the approval of the director. The band’s repertoire spans a wide range of musical styles and periods. Success in this course requires practice outside of class. Students meet twice during the six-day rotation and usually perform twice throughout the year. Special ensembles may be selected out of the larger group as performance opportunities arise. Instruments include everything from Beginning Band with the addition of percussion (percussion students must have at least one year of band experience or the equivalent of private lessons).

Wind Ensemble

Fay’s Wind Ensemble is composed of students with advanced skills who have been selected by audition or recommendation. The Wind Ensemble plays music of a more difficult nature representing a variety of cultures and styles. Students in Wind Ensemble often audition for outside ensembles including advanced ensembles at various performing arts colleges or district festivals for middle and high school students. Private lessons are sometimes required.

String Ensemble

The String Ensemble is open to students with prior experience. The instrumentation includes violin, viola, cello, and contrabass. This group performs music in a variety of styles and performs on numerous occasions throughout the year.

String Orchestra

The String Orchestra is a select group of string players that meets twice during the six-day rotation. The students involved determine the repertoire for the group, although a string quartet is the ideal instrumentation. They play music that is more advanced than the String Ensemble.

Jazz Ensemble

Fay’s Jazz Ensemble is composed of students with advanced skills, and students are selected by audition or recommendation. Private lessons are sometimes required. The Jazz Band performs jazz, rock, and pop and has specific instrumentation (sax, trumpet, trombone, guitar, bass, drums, and piano, woodwinds), which limits the size of the group. Students in the Jazz Band meet twice during the six-day rotation and usually perform two or three times throughout the year. Members of the Jazz Band must also

be in the Wind Ensemble or String Ensemble as long as their instrument is in the instrumentation of these two ensembles.

Music Exploration

Music Exploration is a year-long music course open to students in grades 7, 8, and 9. Throughout the year, students engage in units including world drumming, handbells, orffestra, ukulele, and electronic music. Instruction will focus on the basic rhythmic skills required for music making, including beat competency; ensemble playing; rhythmic, pitch, and contemporary notation (such as tabs and chord symbol notation); a short introduction to Digital Audio Workstations (DAWs) and recording technology; and an opportunity to collaborate with peers to create minimalist arrangements of popular songs. This is a non-performance-based class, although students may have the opportunity to perform for their peers.

Upper School Visual Art Courses

Visual Arts Overview

Eighth and ninth graders have the option to participate in art electives that allow them to focus on specific areas of interest. See below for course descriptions.

Drawing

Drawing is a course with an emphasis on building specific drawing skills, including observation, composition development, and application of value. In this course, students apply abstract ideas and themes to their work as they examine how artists apply the principles of design to add organization to their pieces. They start to look at art with a more focused eye towards composition, and they participate in class critiques. Projects include drawing, oil pastel, and mixed media collage.

Students who successfully complete Drawing will be able to:

- Recognize the principles of design
- Extrapolate from an existing work to create a new, abstract design
- Investigate themes of identity and individuality through art-making
- Explore a range of different drawing materials

Sculpture

Sculpture is an introduction to creating art in three dimensions. Students explore the elements of space and form while designing work that ranges from abstract to realism. Materials may include wire, cardboard, plaster, found objects, wood, stone, mixed-media, and ceramic sculpture. Sculpture is a one-term class offered to eighth and ninth graders.

Students who successfully complete Sculpture will be able to:

- Design, plan, and execute an enlargement sculpture
- Understand armature sculpture
- Care for their materials and maintain a clean workspace
- Address space and work with three-dimensional artwork

Ceramics

This course is an introduction to the pottery studio, with an emphasis on hand building and ceramic construction. Students are challenged to think in three dimensions as they plan, draft, and build pieces that often combine function and form. Students learn techniques ranging from pinching to slab construction in an expansive, clay-only studio. In addition to building, students explore glazes and glazing techniques from dipping to antiquing.

Students who successfully complete Ceramics will be able to:

- Understand methods of clay construction; pinch, coil, slab
- Understand glazing techniques
- Care for their materials and maintain a clean workspace

Pottery

This course provides students an introduction to the art of throwing pots. Students will explore the art of combining form and function while developing proper technique on the potter's

Upper School: Visual Arts & Drama

wheel. The class teaches students how to center, raise and shape their own pieces ranging from mugs to bowls. Students will also learn how to trim and glaze their ware. Students are asked to maintain a clean, organized workspace and are given the responsibility of taking care of and reclaiming material.

Students who successfully complete Pottery will be able to:

- Center, raise and shape functional ware
- Understand the value in combining form and function
- Explore how artistic design affects usable objects
- Participate in maintaining a communal studio

Digital Photography and Media

Digital Photography and Media is a course in the basics of photography using digital cameras. Students focus on composition and techniques of image capture; topics include camera usage, file format, exposure, white balance, lighting, creativity, and image editing software. Students learn to use Adobe Photoshop Elements to manipulate, correct, and edit images; students also explore advanced Photoshop techniques such as drawing within the program, combining images, and creating images from a blank canvas.

Students who complete Digital Photography will be able to:

- Understand the basic functions of a digital camera
- Manipulate digital photos using Adobe Photoshop
- Develop their ability to compose interesting photos
- Define photo-specific vocabulary such as aperture and shutter speed

Painting

Painting class explores the principles of design through the process of making paintings.. Working from both photographs and from life, students develop compositions and mix colors to depict their subjects. Students work in a range of media, including oils and acrylics. This is a one-term class offered to eighth and ninth graders.

Students who successfully complete Painting will be able to:

- Develop original compositions
- Demonstrate understanding of color mixing
- Replicate colors they see
- Care for their materials and maintain a clean workspace

Watercolor

This course introduces students to the art of watercolor and the various techniques associated with the medium. Students will explore how watercolor can achieve quick compositions that encourage artists to consider color and value when developing their compositions. Students consider the principles of design as they engage in a wide array of projects.

Students who take this course will be able to:

- Identify the common characteristics of watercolor paintings
- Implement techniques such as washes and layering
- Demonstrate proper brush and pigment control
- Care for their tools, materials and studio space.

Advanced Studio Art

This advanced ninth grade course is a full-year immersion in the art studio and is graded as a full academic course on par with math, English, history, science, and world language. Students are selected for Advanced Studio Art based on portfolio review by the visual arts faculty. Students complete work in two-dimensional media, including drawing, pastels, drypoint etching, mixed media, and acrylic painting. They visit galleries and explore the work of contemporary working artists. Exhibit opportunities exist at the School and in the larger community.

Students who complete Advanced Studio Art will be able to:

- Improve their understanding of compositional theory
- Develop a personal artistic voice
- Explore a wide range of drawing and two-dimensional materials
- Recognize how social issues can be expressed in art
- Care for their materials and maintain a clean workspace

Upper School Drama

Introduction to Greek Theater

In this term elective, students explore the origins and foundation of western theater by examining the conventions, culture, and playwrights of Ancient Greece. Students learn about the life, times, and works of the four major Greek playwrights and examine their influence on modern theater by making connections to contemporary works of art. The course culminates with students working in small groups and being endowed as directors, actors, and designers as they work together to stage a scene for their classmates from either a classical Greek text or a contemporary adaptation.

Sketch Comedy

In this term elective, students sharpen their comedic playwriting skills. Students hone their comedic abilities, both as performers and as writers, by participating in a variety of creative writing prompts and classic improvisational scenarios. The course culminates with students working either individually or in small groups to select, develop, refine, workshop, and “polish” one complete four-to-five minute comedic sketch, which will then be performed for a select audience within the Upper School community.

Theater for Young Audiences

In this term elective, students refine their physical, vocal, emotional, and imaginative theater skills with a focus on exaggerated, high energy, larger-than-life depictions of storybook characters. Students participate in dramatic activities that bolster confidence, foster conviction, and encourage strong acting choices. The course culminates with students working in small groups or as a class; they will select an age-appropriate picture book or story and adapt it into a short performance for the Primary School.

Upper School Creativity and Design Courses

Creativity and Design Overview

Ninth grade students have the opportunity to participate in Advanced Design Portfolio. Eighth and ninth graders have the option to participate in electives that allow them to focus on specific areas of interest. See below for course descriptions.

Advanced Design Portfolio

Advanced Design Portfolio is a year-long elective for ninth graders that takes place in Fay's Center for Creativity & Design. This course is a full academic course and is graded on the same scale as the course courses in math, English, science, history, and world languages. It is designed to build each student's design skills and understanding of professional design tracks through the creation of design objects and systems. Advanced Design Portfolio focuses on the following themes:

- Human-centered design — a design philosophy and methodology that places the user's needs and experience at the center of the design process
- Digital fabrication — the use of the CC&Ds laser cutter, 3D printers, vinyl cutter, and other machines to create design objects
- Understanding the moral, environmental, and technological relationships designs have with the cultures they live in

Coding for Apps and Games

This term elective is an interactive course designed to immerse students in the world of coding and app development. This course equips students with the fundamental skills they need to create their own unique apps and games.

Students will learn the basics of block-based coding languages Scratch and Blockly and will begin to work with text-based coding languages such as Python, JavaScript, and HTML. Students will explore the process of designing an app, from conceptualizing an idea to implementing functionality and testing for user experience.

Students will also delve into the principles of game design, learning how to create engaging and interactive experiences within their apps. Students will also explore more advanced topics such as game physics as they learn how to integrate game elements into their apps.

By the end of the course, students will have a solid foundation in coding and app development and will be ready to turn their creative ideas into functional and user-friendly apps and games.

Robotics

This term elective provides a comprehensive overview of the fundamental concepts and skills needed to understand and create robots. Students will learn about the basics of robotics, including the principles of mechanical design and the role of sensors and actuators. Students also explore the concept of control systems and how they are used to program a robot's actions.

Students apply their knowledge to hands-on projects, allowing them to experience the process of designing, building, and programming a robot. By the end of the course, students will have a solid understanding of robotics and will be ready to explore more advanced topics.

Upper School: English Language Program

English Language Program (ELP)

The Fay School English Language Program (ELP) is an immersive, multidisciplinary course of study that builds fluency in spoken and written English while introducing students to the Western cultural tradition. ELP students develop proficiency with the English language through an innovative humanities curriculum, small class sizes, and direct, one-on-one interaction with faculty. The program accommodates both strong, well-prepared students who are not yet fluent in English, as well as students who are already proficient and working towards mastery.

Program Overview

Most English Language Program students begin in grade seven or eight, with the goal of joining Fay's mainstream classes in ninth grade as preparation for secondary school. The ELP is composed of three courses: **Literature and Composition**, a reading, writing, and discussion course; **American History**, a history course focused on the struggles and triumphs of the earliest years of the American project; and **Inquiry and Analysis**, a research-based non-fiction and philosophy course. Since mastery of English comes from learning key cultural and social contexts, the ELP also features robust outside-the-classroom experiential learning about the American and Western cultural experience.

ELP students take all other courses—which include math, science, art, music, Creators, and wellness—with their mainstream classmates.

Immersion and Community

Students enrolling in Fay's English Language Program are full and integral members of the Upper School community, which is composed of 275 day and boarding students from more than 50 local towns, 11 American states, and 25 countries. Students have opportunities throughout the school day and on weekends to participate in engaging, immersive activities that foster friendships and new interests. Students play a team sport each season, choose music and art electives, participate in after-school activities, compete in our color team competitions, share dorm rooms, and enjoy meals and social events with students from around the world. By using English continuously in meaningful contexts, students achieve proficiency and fluency at a faster rate.

Structure and Support

Fay's structured language program facilitates the steady development of language skills. Our ELP teachers are experienced in teaching English to international students, and they are trained to provide engaging activities and meaningful feedback to support students' learning and progress. Dorm parents and advisors are also part of each student's team of support. They are on hand before and after class hours to provide supervision, guidance, and encouragement as students learn and grow.

Who is eligible?

While prior English speaking experience is a requirement for this program, students need not be completely fluent. Successful applicants will be able to demonstrate a strong school record, effective study skills, earnest effort, the ability to hear and incorporate feedback, and a willingness to be a contributing part of our community. During the application process, students are placed into the English Language Program by the Director of Alumni and International Relations and the chair of our English Department, who consider the applicant's written and spoken English, academic record, and standardized test scores.

Courses for Seventh and Eighth Graders

Course 1: Literature and Composition

Students participate in literary study and analysis through individualized instruction, choice reading, and guided analysis of texts. Students gradually move towards longer compositions, developing fundamental analytical writing skills and growing fluency with argumentation, organization, rhetoric, and style. Students in Literature and Composition explore a variety of texts, including novels, poetry, short stories, film, songs, and visual and pop culture.

Course 2: American History

This survey course introduces students to key moments in American history. In the fall, students examine U.S. geography and the structure of the U.S. government. In the winter and spring terms, students learn about the story of the United States, from its colonial legacy and the origins of slavery on the continent to the global wars and economic depression of the twentieth century. Using Howard Zinn's *A Young People's History of the United States* as the central text, students examine American achievements and contributions—and also ask how its people can do better in the future. Through reading and analyzing primary and secondary sources, students develop their language skills, with a focus on reading comprehension, writing, and oral expression, in preparation for secondary school.

Course 3: Inquiry and Analysis

This highly individualized course offers a workshop environment in which students learn the vocabulary, organizational skills, and study strategies needed for success throughout their experience at Fay School and beyond. Students participate in frequent discussions, vigorous debates, small group work, experiential learning opportunities, and field trips in order to build confidence and develop the fast-paced language processing and speaking skills necessary to thrive in secondary school and college.

Upper School Athletics Overview

The athletics program takes place every day following academic classes. All students in grades seven through nine are required to participate daily in all three terms. Students choose from an array of interscholastic sports and intramural activities (one per term). Students may try out for competitive interscholastic teams or join an intramural team or activity. However, all students are required to participate in at least one interscholastic sports team each year.

Fall Athletics

Soccer

Fay offers a competitive interscholastic program for soccer, with varsity and JV levels for each gender. Students are placed on a team that is appropriate for their age and level of experience.

Football

Fay offers a competitive interscholastic football program for students in grades seven through nine. Only a varsity level is offered, and all students are placed on that team.

Cross Country

Fay offers a competitive interscholastic coed cross country program in grades seven through nine. A varsity level is offered, and all students are placed on that team.

Volleyball

Fay offers competitive interscholastic programs for volleyball, with varsity and JV levels offered. Students are placed on the team that is appropriate for their skill level.

Field Hockey

Fay offers competitive interscholastic programs for field hockey, with varsity and JV levels offered. Students are placed on the team that is appropriate for their skill level.

Intramural Golf

Students in the intramural golf program use a driving range facility as well as two local nine-hole courses. This is not an instructional program, so students should have some prior experience playing golf. Numbers for this program may be limited.

Beginning Tennis

The intramural tennis program provides some basic instruction and opportunities to play both singles and doubles against individuals with a similar level of experience. Numbers for this program may be limited due to court space.

Multi-Sport

Fay's Multi-Sport program provides students with opportunities to try a variety of sports and activities, spend time outdoors with friends, and stay active every day. Students in multi-sport participate in sports and activities such as tennis, golf, disc golf, ultimate frisbee, rock climbing, mountain biking, and fishing. Students learn new skills, take appropriate risks, build confidence, and practice teamwork.

Winter Athletics

Basketball

Fay offers a competitive interscholastic program for basketball, with varsity and JV levels offered for each gender. Students are placed on the team that is appropriate for their skill level.

Ice Hockey

Fay offers a competitive interscholastic program for ice hockey, with boys and girls varsity teams and a coed JV team. Students are placed on the team that is appropriate for their abilities.

Wrestling

Fay offers a competitive interscholastic wrestling program for all students in grades seven through nine. A varsity level is offered, and all students are placed on that team.

Squash

Fay offers an instructional and competitive squash program for all students that takes place at Nick Taylor Squash Academy in Natick. This program may incorporate some interscholastic matches where appropriate. Numbers may be limited for this activity.

Intramural Skiing & Snowboarding

Fay offers a recreational ski program at Nashoba Valley in Westford, MA. Students can take ski or snowboard lessons as part of the program for an additional cost. Rental equipment and lessons are also available for an additional cost.

Multi-Sport

Fay's Multi-Sport program provides students with opportunities to try a variety of sports and activities, spend time outdoors with friends, and stay active every day. Students in multi-sport participate in sports and activities such as tennis, golf, disc golf, ultimate frisbee, rock climbing, mountain biking, and fishing. Students learn new skills, take appropriate risks, build confidence, and practice teamwork.

Dance

Fay offers an instructional dance program that focuses on a variety of styles of dance. Students have the option of participating in beginning dance for new dancers or advanced dance. The group performs in Morning Meeting and at other school venues.

Upper School: Athletics

Spring Athletics

Lacrosse

Fay offers a competitive interscholastic program for lacrosse, with varsity and JV levels offered for each gender. Students are placed on the team that is appropriate for their skill level.

Baseball

Fay offers a competitive interscholastic program for baseball, with varsity and JV levels offered. Students are placed on the team that is appropriate for their skill level.

Softball

Fay offers a competitive interscholastic program for softball, with varsity and JV levels offered. Students are placed on the team that is appropriate for their skill level.

Track & Field

Fay offers a competitive interscholastic track and field program for all students in grades seven through nine. A varsity level is offered, and all interested students will be placed on that team.

Tennis

Fay offers a competitive interscholastic tennis program for boys and girls in grades seven through nine, with varsity and JV teams offered. This sport has limited numbers, and there may be a try-out.

Multi-Sport

Fay's Multi-Sport program provides students with opportunities to try a variety of sports and activities, spend time outdoors with friends, and stay active every day. Students in multi-sport participate in sports and activities such as tennis, golf, disc golf, ultimate frisbee, rock climbing, mountain biking, and fishing. Students learn new skills, take appropriate risks, build confidence, and practice teamwork.

Dance

Fay offers an instructional dance program that focuses on a variety of styles of dance. Students have the option of participating in beginning dance for new dancers or advanced dance. The group performs in Morning Meeting and at other school venues.

Learning Services

Learning Services Overview

The Learning Services Department supports children with diverse learning needs from Kindergarten to grade nine. The department includes Learning Specialists, a reading specialist, and a speech and language pathologist, all of whom understand children's unique learning styles. These Learning Specialists work in collaboration with classroom teachers to ensure that each child has the specific support they need to establish a strong foundation of academic and life skills. At each grade level, specialists provide academic support individually, within a small-group setting, or integrated into the classroom based on a child's individual needs. .

Screenings

In-school screenings are conducted as needed to assess progress and needs. Information derived from these screenings is shared with the team to suggest supportive classroom interventions. If a student continues to have difficulty accessing the curriculum, an external neuropsychological or psychoeducational evaluation may be recommended. Information from these reports is used to create learning profiles that are shared with classroom teachers. The Director of Learning Services supports families throughout the evaluation process and manages the cases of each student with a learning profile.

Primary School

In the Primary School, students may work with a reading specialist or speech and language pathologist. Support is provided individually, in small groups, or in the classroom. Specialists closely monitor the progress of each child, adjusting intervention as needed. Our reading specialists are trained in a variety of evidence-based reading interventions and tailor their support to supplement the classroom literacy program by meeting individual needs. Additionally, limited speech and language support is available during school hours.

Lower School

In the Lower School, children requiring specialized reading support have an opportunity to work with a trained reading specialist either individually or in a small group. Fay's reading specialists are trained in a variety of evidence-based reading

interventions. In addition, Learning Specialists are available to work in the classroom and with small groups to bolster their reading, writing, and math skills. Some students with diagnosed learning differences qualify for additional one-on-one academic support, which can be provided by the Learning Specialist in grades three and four and for a fee in grades five and six.

Upper School

In the Upper School, the Learning Services team provides varied levels of support based on students' needs. Fay's qualified Learning Specialists address the needs of any student who, due to their varied learning profiles, may require extra interventions and individualized support. During team meetings, specialists also share specific strategies and tools with teachers to facilitate student success. Such support may include developing and strengthening executive functioning skills, teaching how to plan and complete a long-term assignment or project, or bolstering math and writing skills. Learning Specialists also provide testing accommodations, such as a separate setting and extra time.

Individualized Academic Support

Individualized Academic Support with a Learning Specialist is available for an additional fee to students with documented learning needs. Sessions are scheduled during the school day, and Learning Specialists work with the faculty to ensure they understand the academic demands and what strategies can best support their learning.

Learning Profiles

Once an evaluation is completed and a student and a learning difference has been identified, a profile is developed by the learning services team and shared with classroom teachers and advisor. This learning profile will provide an overview of the student's learning difference/disability, as well as the recommended academic or social-emotional supports. In addition, accommodations are outlined so that all individuals working with the student can support them in the classroom and with assessments. These learning profiles are used to appropriately shape the learning experience to enhance each student's strengths and provide support to help these students become confident, independent learners.

