

SAINT ANN'S SCHOOL

CURRICULUM

An Overview



THE FOLLOWING NOTICE OF NON-DISCRIMINATORY POLICY IS PRIMARY TO THE MISSION AND PURPOSES OF SAINT ANN'S SCHOOL:

Saint Ann's School admits students of any race, color, religion, creed, gender, disability, national or ethnic origin, sexual orientation or any other category protected by applicable federal, state or local law, to all the rights, privileges, programs, and activities generally accorded or made available to students at the School. The School does not discriminate on the basis of race, color, religion, creed, gender (which includes a person's actual or perceived sex, as well as gender identity and expression), age, marital status, disability, national or ethnic origin, sexual orientation, familial status, predisposing genetic characteristics, actual or perceived domestic violence victim status, unemployment status, caregiver status or any other category protected by applicable federal, state or local law, in carrying on its educational activities or in administration of its educational policies, admissions policies, employment policies, financial aid programs, and athletic and other school administered programs.

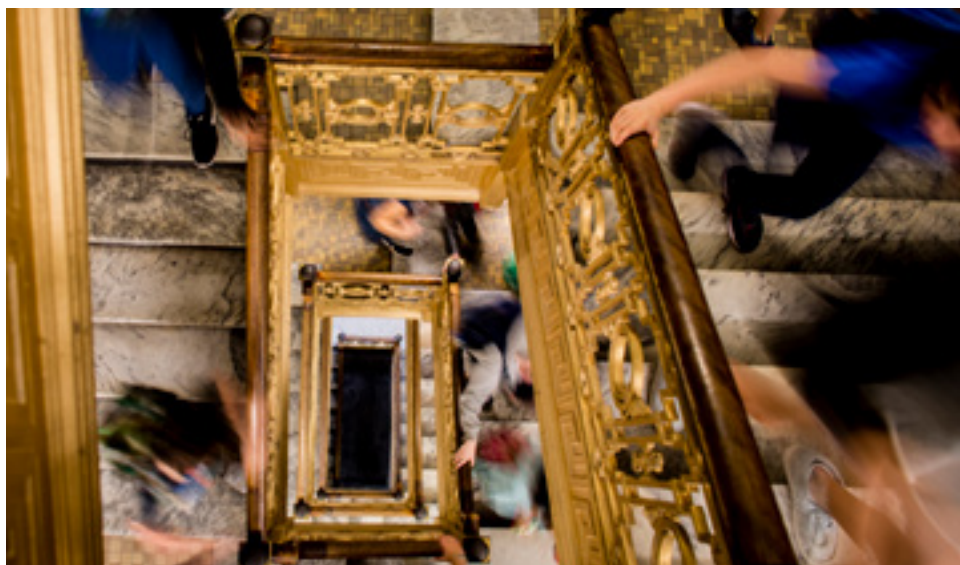
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INTRODUCTION

Education is the process of making sense of the unknown and integrating it into our experience. It is the encounter with the traditions of one's own culture, and of other cultures, and, from that encounter, shaping a world view. It is "I" and "thou," "we" and "they." It is the acquisition of languages, signs, symbols and tools that enable us to describe and create reality, to converse with one another, to understand a people far distant in time or space, to make something beautiful. It is a celebration of our shared humanity. It is a sacred trust, the deepest impulse and first prerequisite of which is love.

The curriculum at Saint Ann's reflects our belief that rigorous, free-spirited engagement with human expression and knowledge is at the heart of learning. We believe that an embrace of the arts, through which students are equipped and enticed into being creators in every discipline rather than passive consumers of information in any of them, is central to that engagement. Our curriculum expresses our collective aspirations and ideals as a school and provides the platform that supports the individual interests, passions and expertise of our remarkable, diverse and eclectic teachers and students.





Whether through the deep and varied curricula that our homeroom teachers design during our students' first years in their Saint Ann's journey (Greek, Indian and Egyptian mythology, the Harlem Renaissance, the Islamic Empire, the human body, among others); or the early introduction of teachers who are specialists in their respective disciplines (in art, music and recreational arts beginning in Preschool, to be joined by poetry and mathematics in Kindergarten and science in Lower School); or the introduction of fully departmentalized instruction beginning in fourth grade, our curriculum is designed to stimulate our students' natural curiosity and motivation. We are less interested in specific grade- or age-based benchmarks than we are in equipping students over time with the skills, languages and intuitions they will need to explore and understand sophisticated concepts and to communicate their knowledge with teachers, peers and the world beyond our walls. Free of the impediment of formal grades, we entice students into becoming learners and explorers, and invite them to dream with us of bringing something new into the world.

Vincent Tompkins
Head of School

PRESCHOOL



In Rachel Carson's book *The Sense of Wonder*, she describes a sharing of adventures which "includes nature in storm as well as calm, by night as well as day, and is based on having fun together rather than on teaching." While the preschool would love to gather by night to look for ghost crabs, we are limited to daytime hours. But there is plenty of time to have fun—and to teach, for that is why we cling to these children, like salt to skin. How can you not teach them, when they have so much fun learning? And we do have fun with them, and wonder with them. The preschool is first and foremost a place of wonder.

Children enter the building on Willow Place to find a world of their own making. As three-year-olds, they might grow small like Marie Elaine and have an adventure with the Queen of Cats. They might sit around an imaginary campfire in Yellowstone Park and tell shivery ghost stories. As four-year-olds, they may travel the deserts and mountains of China or trek deep into the woodlands, examining nurse logs covered with shelf mushrooms.

Murals and poetry fill up the walls as the children immerse themselves in their classroom studies. Georgia O'Keeffe, who wrote of her art as a language, becomes a member of a threes class with her own X on the rug. The children look at her paintings from her time in New

York City and then in New Mexico when she would drive out into the desert in her studio car, which the students replicate. The light! The sky! One child writes: “‘Come to this new world,’ the wind sings.” Another threes classroom is talking about nocturnal creatures, making swooping owls out of papier-mâché, writing poetry that is the centerpiece of an Owl Poetry Party.

Meanwhile, in the downstairs fours, Raven flies off with the light in his beak and Coyote fashions a ladder to the moon during their reading of trickster tales. In the upstairs fours, Monkey King and Er Lang the emperor stand guard while the children read *Journey to the West*. They find themselves in an epic contest of wills, each of them transforming into various creatures—a sparrow, maybe, or a hawk—to decide one’s providence. And isn’t that just like preschool, constantly trying on new guises and discovering what fits?

Across the hall, the threes are listening to Ella Fitzgerald and composing their own songs. They sculpt their own busts out of clay and cover them with bronze metallic paint inspired by Augusta Savage. Their poems go where Langston Hughes’ and Gwendolyn Bennett’s words take them: “I sailed in my dreams to the land of night, in a boat, a pink boat with purple sails. It was dark with a full moon and thirteen stars.”

Amidst all this hubbub, there is time to sing and dance, to rest and read books, and (yes!) always time to play, inside and out, in the yard and in the “big room.”

The big room is the setting for a special gathering in the spring for what has come to be known as the Preschool Opera. A dazzling display of sustained artistic process, the opera asks that the children create a transformative set, choreograph dances, and brainstorm costume and musical lyric ideas. For one day, the big room becomes a magical performance space and we are swept into their dreamy world.

The big room is also the destination for specialty classes—Art, Dance, and Recreational Arts—to which students travel in half groups throughout the year. These specialty teachers begin their journey with the preschoolers and may meet them again in kindergarten or in the lower, middle or high school. Many teachers at Saint Ann’s work across two or more divisions of the school.

In Art, all of the preschool classes make torn paper black and white collages in the first weeks, then tear pieces of clay to produce torn ceramic black and white mobiles. Now every morning, a ritual emerges: a father carries his son up high so he can softly touch the pieces, creating a gentle jangle. The artwork proceeds—next, they paint scenes of ships at sea in gold-painted frames of chunky collage. Again, the boats take on three-dimensionality with painted ceramic slabs of the sea, a single-masted ship billowing over the waves.



In Recreational Arts, the teachers concoct an obstacle course for the children to go over and under and around. Built with mats, bars, ladders and trikes, the course engages the children's mobility and imagination. The same equipment is used for a classroom's expedition into the mountains.

In Dance, the children create a museum of movement. They mirror each other's steps. They leap and run and dip and twirl. Back in the classroom, they become the Great Prismatic Lake, dancing with strips of tissue paper that reflect the colors of the lake's rings.

Music happens in the classroom, the children singing together, again incorporating movement, learning the scale, experimenting with rhythm and drumming, imagining the world as one. Later, five high school students arrive

with two oboes, two flutes and one alto flute to perform a ragtime piece for the threes.

"A child's world is fresh and new and beautiful, full of wonder and excitement," writes Carson. This is our motivating theory of practice. The preschool exists to celebrate each child's verve and to strengthen the children's connection to each other and to their own sense of self. Preschool teachers stoke students' curiosity and guide their quest for knowledge. School becomes a yeasty environment in which to explore and experiment, to synthesize and synchronize.

Quiet descends as the children become engrossed in a collage of many materials or a pen-and-ink drawing with a wash of tea. A child's poem emerges about the mountains:

*Owls are resting on a tree
The night is covering the sun
It's quiet
I'm walking
Alone
I'm free
I will go to the forest
And play*

KINDERGARTEN

The sixth year of life often marks a transition from magical thinking toward a more logical approach to the world. It is in this realm of magic and logic that we dwell and delight. Here at Henry Street, we meet children where they are, nurture them as a community of compassionate and intrepid learners, explorers, artists and problem-solvers, and prepare them to thrive in our Lower School.



As in our Preschool and Lower School, the subject of the classroom curriculum is chosen and developed by the classroom teachers. Whether the inspiration is whales, Frida Kahlo, Mount Fuji, or outer space, the curriculum calls on students to develop and integrate a wide range of academic skills, and to use their intrinsic creative thinking to engage with new ideas, test them and share what comes of the process. The students explore the subject matter through read-alouds of both fiction and non-fiction and extend their thinking through original writing (either dictated or written in the child's own emergent hand). Together they collaborate on research and organize their findings in surveys, charts, or books. The visual arts are employed extensively in curriculum-related collage, paintings, drawings, etc.

Along the way, we observe and nurture the ways in which our students fold their newfound knowledge into their natural dramatic play. Such an expansive array of experiences is necessary in order to richly meet—and challenge—the gifted and diverse students we teach.

Community and Play

Play is at the heart of a five-year-old's life. Through play, they make sense of the world and their place within it. Through play—in the yard, in the block area, in the house corner, in the quiet of rest and the buzz of choice time—children begin to understand and experiment with rules, to make sense of new information and narratives, to sort through issues of identity and community, to test the waters of new friendship, to falter and flourish and thrive. Teachers cultivate environments to encourage a variety of meaningful ways of playing, and lovingly observe and nurture the children's self-directed activity. While there are daily opportunities for free play in the classroom and the yard, curriculum, mathematics, and reading are often taught through active games and playful activities as well.



With twenty classmates it's crucial that our students learn to work and play in a strong, respectful and loving community. Each teacher chooses how best to nurture these understandings and behaviors, but all are committed to the process.

Literacy and Language Arts

The kindergarten is an environment rich in language. The curriculum is explored through picture books and nonfiction titles. Chapter books that are read aloud and explored in discussion and projects challenge students to think about sophisticated plot and character development. The letters and words that students are beginning to master as readers and writers deck the walls of the classroom and invite reference, and the students' own dictated poems and curriculum-related thoughts fill their rooms and extend conversations.

Three times each week the students read in small groups with classmates at a similar reading level. We balance a study of phonics and phonemic awareness with attention to comprehension, decoding, and fluency. Whether a group is playing a phonics game or dramatizing a scene from *Alice in Wonderland*, the goal is the same: to meet each child where he or she is, and to nurture a lasting love of language and literature.

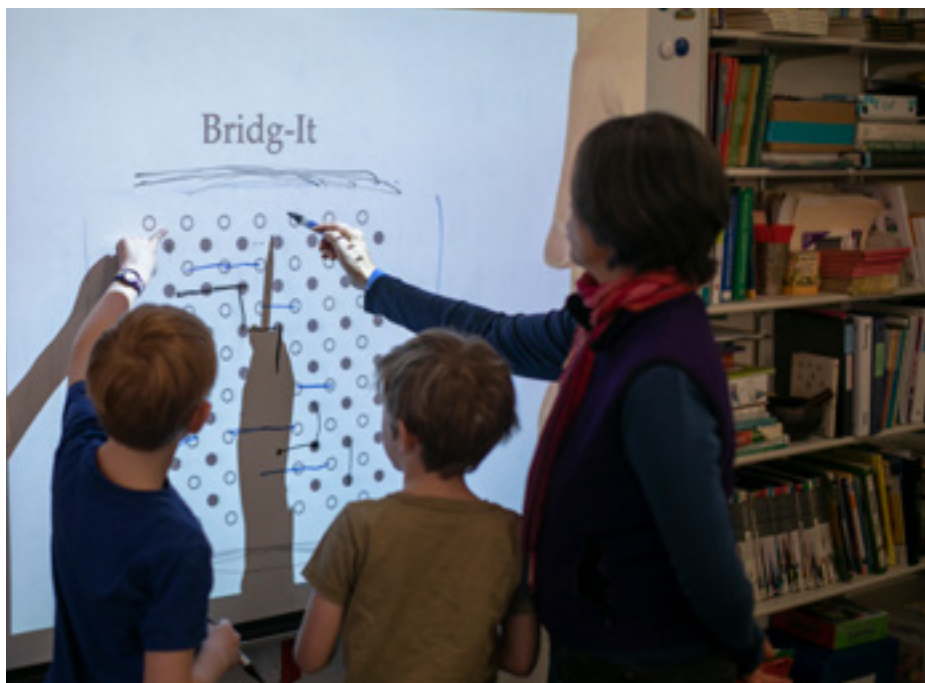
Children enter kindergarten as storytellers. We give them frequent opportunities to dictate their stories and poems as journal entries or as part of curriculum projects, and their work is shared through readings and displays. As storybooks, fairy tales, and folk tales are read aloud for sheer enjoyment and/or for their connection to a given curriculum, elements from these models make their way organically into many a child's writing. In this way our students are developing their voices as writers even as they are still working on mastering the formation of letters themselves.

As students are introduced to letter sounds and formation they begin to write on their own, using invented spelling. Concepts of sequencing and descriptive language are presented and played with. Oral expression is nurtured through regular opportunities for sharing and questioning, and active listening is taught hand-in-hand with clear speaking.



Mathematics

Our mathematics program is a combination of building sound number sense and engaging in strategic problem-solving. In pursuit of the former, students have frequent opportunities to count and sort, to make sets, to find and create patterns, to do addition and subtraction using real materials, and to make and read graphs and charts. They practice writing numbers, do simple equations, and explore size, shape, length, and volume. As for strategy and problem-solving, teachers present a variety of strategy games and open-ended problems for students to discuss and solve both independently and collaboratively. The environment richly supports mathematical meaning-making, both through visual representations as well as through the variety of manipulatives that are available for play and made use of in lessons.



Just as our students come to us as different types of readers, so too do they come to us as different types of mathematical thinkers. The mathematical work in our kindergarten is intentionally open-ended and differentiated so that each child can engage with a concept at his or her own level and pace.

Specialty Classes

The kindergartners attend a wide variety of specialty classes in half-groups: half of a class leaves with the specialty teacher and half remains with the classroom teachers. This scheduling (which continues through the Lower School) allows for a dramatically reduced student-teacher ratio. The ten students who remain in their classroom are frequently joined by a third floating teacher, allowing for small-group work and individualized attention.

Among the specialty classes are Art, Dance, Library, Music, Play & Performance, Poetry, and Recreational Arts.

Kindergarten is a year of transition. The magical thinkers we meet in the fall become the creative storytellers, poets and problem solvers that we send off to the Lower School come June. It is our intent that our students leave us confident in their own voices, admiring of the voices of their friends, and prepared to take on challenges with creativity and joy.



LOWER SCHOOL



Children enter our Lower School at around six years of age and spend three years with us before moving on to a fully departmentalized fourth grade. We are committed to allowing children to move at their own pace and meeting individual children wherever they are. A high student-teacher ratio and creative scheduling allow us to work with small groups of a range of abilities. A child who needs a little extra time to learn to read might easily be a gifted math student. Therefore, there is no lock step progression.

What we call curriculum is not something published in a set of workbooks, but rather a passionate intellectual foray developed and led by the teacher. The teacher leads a focused study in a particular area that reflects his or her interests, enthusiasms, and achievements as well as those of the students. Teachers are encouraged to seek out subjects in art, history, the social and natural sciences to explore; these areas are chosen on the basis of genuine intellectual curiosity and are infused with the freshness of discovery. Classes may study India, the Harlem Renaissance, Ancient Islam, birds, bats, the New York coastline, or theater from

the Greeks to Beckett. (Watching third graders perform *Godot* makes one think adult actors may have been wasting their time!) Fields of study are as varied as the children and their teachers. In the course of their studies, the students make maps, paint murals, read books, perform plays, go to museums, have visiting lecturers, build models and even dance and write poems about what they are discovering—and about the process of discovery itself.

While the teacher-selected curriculum for teaching academic skills varies from class to class, the skills covered are consistent among age groups. For example, all “first year” students learn that a sentence starts with a capital letter and ends with a period. What happens in between is infinite and depends on more variables than can be described.



Reading

Our aim is to launch a passion for literature that becomes a lifetime addiction. We encourage even our youngest children to learn to read for pleasure and for information. The program utilizes phonetic and sight word techniques as well as linguistic and experiential approaches. As soon as the material allows, students are encouraged to use context to interpret words not yet a part of their reading vocabulary. With the many lower schoolers who begin first grade already able to read, we solidify phonic and sight skills, encourage independence and develop contextual understanding. Progress occurs on a continuum. Small groups ensure that children develop at their own rate while moving in a generally similar direction.

As the child's reading progresses, we work to develop critical skills, improving contextual understanding by predicting outcomes and paying particular attention to inferential as well as literal comprehension. Facts and information are assimilated; style and form discussed; formal comprehension questions are answered in writing. To encourage outside reading, book reports are assigned. Naturally, a good deal of supplemental reading is done in conjunction with the curriculum studies.

We expect our children to read voraciously. Teachers initiate independent programs as soon as children are ready to enjoy books without assistance; in addition, groups are maintained for the pleasure of discussion and the enhancement of fluency. Extensive use is made of the library and the librarians help children individually to make book choices they will enjoy.

Each child's progress is assessed by the teachers, two reading specialists, and the Head of the Lower School. We use reading assessments and other diagnostic tools to pinpoint areas of weakness even in an essentially strong reader. If there are children for whom we feel satisfactory progress has not been made, additional diagnostic tests are given or outside evaluation is recommended.

As each child is required to read every day, so they are read to daily. Head teachers, associate teachers, the librarians and the Head of the Lower School all take pleasure in reading to children as a way of communicating their own love of literature and language.

Language Arts

Since the physical process of writing must also be mastered, initially some of the children actually dictate their creative journal stories, eagerly moving on to writing for themselves as their mastery of this process develops. Punctuation and grammar are taught in response to the child's articulated needs. Spelling is an adjunct to the phonics that form an integral part of the reading program.

Children are introduced to poetry, newspapers, questions on curriculum and reading texts, etc., along with alphabetizing and beginning dictionary skills. A more formal language arts program begins in the second grade with the implementation of spelling rules and tests and the application of grammar and punctuation. Skills are introduced at increasingly sophisticated levels; journals are a continued vehicle for creative writing, while assigned topics are completed as separate papers. A seven-year-old who emulates the style of her current favorite author underscores our belief that reading and language arts are inseparable. The children are encouraged to develop their powers of expression, both oral and written.

Our goal for eight-year-olds in their final year of lower school is to stimulate pleasure, ease, and skill in oral and written expression. More complex spelling and punctuation are introduced, including parts of speech, sentence structure, and basic grammar rules.

Handwriting, which comes so naturally to some children and is such a struggle for others, is practiced daily, focusing on print in first and second grade and transitioning to cursive by third grade. Although some children write fluently when they enter first grade, we strive to send all of our children to middle school as confident, compelling writers.



Poetry

Our children's inherent talent for playing with words leads them, with nurturing, to appreciate poetry as art and process. Through the poetry program, they are exposed to basic forms as well as to a range of published and respected creative writing. Student work includes group poems, found poems, and sound collages, as well as extended narrative and descriptive pieces. The content of this work reflects the children's whimsy, personal interests, and frequently their studies. Thus, phonic work reappears as alliterative verse in, for example, a Viking saga. Rhythm, imagery, metaphor, and simile are explored as the children progress from simple cinquain to careful iambic quatrains.

Poetry is collected and printed throughout the year. The youngest children dictate, taking more responsibility for their own writing as their motor skills increase. In second grade, the students write and illustrate their class volumes.

Science

Each teacher develops units of study in science, often drawing on the resources and personnel of the science department. Topics are usually an integral part of the classroom curriculum, although, at times, they may be dictated by separate interests or resources. In second grade, along with the classroom teachers, a member of the science faculty leads the study of topics from sunlight to chemistry. The final year of lower school sees the beginning of a more formal study of science in the laboratories of the Bosworth Building.

Dance, Art, Math, Computing, Music, Recreational Arts

The formal study of these subject areas is departmentalized in the Lower School, and the curriculum of each is discussed under its individual department statement. It is important to note that many specialty classes are attended in half groups, a structure that dramatically lowers the student-teacher ratio. This is clearly an advantage for the students attending the specialty classes as well as for those remaining in the classroom, where the ratio of five students to a teacher allows individualized attention. Informally, these subjects are not only the domain of the specialty teachers; the children compute, calculate, dance, act, and sing in the classroom as well. Weather permitting, they play in the local parks at least twice a week.



MIDDLE SCHOOL

Starting in fourth grade, our youngest middle schoolers move to a new building and into fully departmentalized instruction. This can feel like a big transition from their homeroom-based environment in the Lower School, but before we know it they are nimbly navigating the Bosworth Building alongside their older peers (students in grades four through twelve share the Bosworth Building and other nearby instructional spaces) as they encounter dynamic teachers and engaging curriculum. Each fourth grade student takes English, history,



math, science, language structures, library, theater, music, computer, studio art, and gym. Fourth grade lays the foundation to achieve deeper self-awareness and cultivates a sense of independence, agency and self-confidence that will continue to grow throughout the Middle School. Students are given more and more responsibility and opportunity to shape their own individual academic and artistic experience. The start of middle school also brings a transition for parents, as there are fewer direct interactions with teachers. Beginning in fourth grade, we ask parents to use division offices as their primary means of communicating with the school. Division offices have a holistic sense of how a child is doing and division heads are in frequent communication with teachers and with school support staff.



Robust course options in each discipline encourage broad imagination and exploration. Starting in sixth grade, in addition to a weekly health class, more instrumental music options are added to the palette. Language study begins in seventh grade where students are primed to select from a number of modern and ancient languages. Many of them decide to pursue two or more languages during the remainder of their time at Saint Ann's. With each year, students have an increasing number of electives and more choice in how fully they want to explore the academic and artistic disciplines we offer. Students are free to select classes that will stoke their curiosity, foster new interests, further develop existing talents, and challenge their assumptions.

No two experiences are exactly alike, and eighth grade students emerge self-reliant, unencumbered, and intellectually curious. They all develop skills and habits of mind to prepare them for their departure from middle school, but each of them has arrived there after traveling a unique path. The Middle School at Saint Ann's is not simply a means to an end; we indulge in the joys of the present intellectual pursuit where students are celebrated, supported, and encouraged to fully explore their passions.

HIGH SCHOOL

Our high school curriculum is an incredibly rich and diverse one, consisting of offerings ranging from classes like U.S. History that are taken by students across the country, to electives like African Dance that are unique to our institution. Starting in ninth grade, students are afforded a great deal of choice in shaping their collection of courses, and by senior year the breadth of classes from which a child can choose rivals the offerings of a small liberal arts college.



Our graduation requirements resemble a combination of a core curriculum and a distribution requirement. In many departments, such as Science and Math, lower level courses like Biology, Geometry, and Algebra 2 are required and these must be followed by a certain number of electives, which students are free to choose themselves. In other departments, like Classics and Romance Languages, students must complete four years of foreign language study, but may do so with any combination of courses they choose. This flexible structure allows students to gain important knowledge while remaining free to pursue particular passions in great depth throughout their four years.



While in ninth grade many core academic classes consist of only freshmen, several elective academic courses and all arts courses see students of all ages learning together. In tenth grade and beyond, academic courses are routinely “mixed-grade.” This allows students to connect with each other across the boundaries of chronological age, with underclassmen learning from both their instructors and their older peers, and upperclassmen benefitting from the fresh perspectives of the younger voices in the room.

Creativity is central to our approach to learning in every corner of our institution. The arts—in all forms—are fully co-curricular throughout high school. Whether a student takes painting, dance, jazz, or a filmmaking class, our schedule does not relegate these important endeavors to the outskirts of the day, allowing each child to fully integrate artistic pursuits into their daily experience. The seamless transition from academic exploration to creative expression (and back again) promotes a fluidity of thought that encourages teenagers to make connections across disciplines and hones the critical thinking skills that allow them to dive deeply into each subject they encounter.

ARTS



The word art at Saint Ann's incorporates the performing and visual arts. It eludes the cliché that art is extracurricular, bridges the worlds of practicum and theory, and constitutes an important and extensive series of studies.

Programs in the visual and performing arts are designed as cumulative curricular offerings emphasizing theory, performance, and history, and all are considered of equal importance with the traditionally defined academic courses. The distinction between the “important” academic subjects and the “extracurricular” arts is further blurred by the absence of grades in either set of disciplines and by the scheduling of arts offerings within the regular school day. All lower and middle school students are scheduled for required classes in the arts, and additional electives are available beginning in the fourth grade. High school students are offered a wide range of electives; it is not surprising to find a student taking as many as six arts electives in a given year.

Class scheduling at Saint Ann's is tailored as much as possible to individual needs. In terms of the arts, flexibility of scheduling makes possible the double-period classes necessary for studio art and performance classes, as well as permitting a dispersal of arts classes over the

entire weekly schedule rather than restricting them to a few “arts” slots. Because of the almost universal involvement in the arts here, there is still an overflow, and rehearsals for major non-workshop productions take place in the interstices of the schedule, after regular classes, and on weekends. In addition, up to three regular school days may be missed for the rehearsal of a major theatrical production. Music and dance events usually require less interruption of the normal schedule.

Our arts have the particular characteristic of being taught by professionals who themselves often attain a professional degree of proficiency, whether they pursue careers in these fields or develop life-long avocational interests. Because of Saint Ann’s location in a performing and visual arts center like New York, we profit from an abundance of talented people who wish to combine teaching and practice. While some of these people may lack the formal qualifications for teaching, they possess the verve, the commitment, and the energy that are the true basis of any real teaching. We invite artists to teach our children and to share their professional experience and creative insights with them.

Whether in the visual or performing arts, students frequently extend their school term by participating in special summer programs in the arts: apprenticeships in stock companies and architectural firms, study programs sponsored by local museums and distant colleges, music and dance workshops, and institutes of various kinds. Information, guidance, and encouragement in choosing such programs (and in preparing auditions and portfolios for college applications) further serve to confirm the significance of the arts at Saint Ann’s.



Theater

Theater is a vibrant, joyful and contagious aspect of Saint Ann’s. Beginning in the Lower Middle School, in fourth grade, formal theater classes stress how the human body relaxes, moves through space, and communicates. Students learn how the body makes sounds and how it can observe and understand what might make people tick. Based on fables, fairy tales, myths, poems, stories, plays, music, world events, images, and the students’ own writing and daily life, young students explore the various possibilities of the body and voice. They are introduced to character work and learn to appreciate and serve as an audience for their peers. Each class works as an ensemble.

In the acting classes at the middle school level, we emphasize the exploration of acting techniques, participation in improvisational work, and the creation of original character pieces and scripts. Students also analyze both classical and contemporary texts as the process of fine-tuning an actor's instruments—the body, voice, and imagination—continues. All theater students in the middle school are encouraged to collaborate and perform in workshops and class projects.

By sixth grade, courses in **technical** theater and the study, design, and production of costumes have joined the options for middle school students. These classes involve students in scenery design, stage painting, construction, lighting, sound design, and costume design and production. Students study the history and variety of clothing and costume throughout the world. We also encourage working backstage as light and sound operators or as members of costume and tech crews in school productions to round out a holistic understanding of theater. Sixth graders may also choose Breaking the Code, a class geared toward filmmaking, video and the study of media.

Beginning in seventh grade, classes in **acting** (Theater Workshop and Art of Comedy) are offered, along with Acting Through the Ages, an intensive two-period acting styles class for interested students. Seventh graders may choose to participate in a collaborative documentary **filmmaking** class. Eighth graders may also elect a film and video course that involves writing, directing, performing, and videography, which culminates in an annual film festival of the students' work. Seventh and eighth graders may also take **Playwriting**, in which students write every week and share their work with the class. Playwriting classes culminate in festivals of readings and staged readings of student-written plays. The playwrights direct their own plays and act in other playwrights' plays. Students also gather to read plays of different genres together.

Puppetry classes are also an essential part of the theater program and are offered to the fifth through twelfth grades. Students create all types of puppets and the year culminates in an outdoor puppet parade in which the whole school participates. Throughout the year, puppet plays of different genres are performed throughout campus.

The high school theater program includes a variety of challenging and exciting electives. Acting classes encourage ease, assurance, and expressiveness through the use of games, improvisation, monologues, and scenes. Students learn how to break down scripts, analyze a variety of contemporary and classical texts, and approach a character. Rehearsal and performance techniques are further developed, characters are created and scripts are invented. The use of imagination and empathy remain key. Ensemble work continues to be stressed. Class trips to the theater, guest teachers, student site-specific performances, and demonstrations all play a part in giving students a sense of theater at the professional level. Recent high school course offerings have included Acting, Acting Intensive, Performance Art and Shakespeare Workshop.

High school theater classes meet two to four periods a week. Students are encouraged to perform in **acting workshops** such as The Scene Marathon and Will and Friends From Brooklyn and class projects and plays during the year, and to devise their own pieces. Students create experimental autobiographical works that are performed and experienced throughout campus as well as at sites beyond school walls. Sometimes theater classes collaborate with classes from other disciplines on performance projects that bring a lens to topics in history, philosophy, art, science, languages or music. Disciplines within the theater department (such as dance, film, costume and puppetry) regularly collaborate. Audition coaching for summer programs, college and professional work is readily available from theater department faculty.

The **production** aspects of theater are also taught in depth in the high school, and opportunities abound for students to involve themselves in school theatrical productions. Technical Theater students are responsible for mounting theater department productions. Similarly, costume design classes operate on both the theoretical and the practical levels. **Costuming** is approached from historical, literary, and aesthetic perspectives, and the students design and build many of the costumes for school productions. Costume students participate in crews during school productions, and a spring Clothesline Show exhibits the students' individual projects. Advanced tech students may choose Play Production, in which many aspects of stage managing, lighting, and crewing a show are explored in greater depth.

Most performance-oriented courses in the theater department present workshop performances. In addition to these, participation in major annual productions is open to all students in both the middle and high schools by audition. Collaboration and individual expression are hallmarks of these productions. As many auditioners as possible are included.

At Saint Ann's, plays and musicals reflect all levels of student training and experience without compromising any of the excellence or rigor of the performance and rehearsal process. Projects are chosen that challenge students intellectually and artistically. Younger and older students work together onstage and backstage. The play's the thing in which students often mentor one another and find a "home" in the theater. Guest artists sometimes add their expertise, and student designers, composers, playwrights, choreographers, singers and musicians contribute their work to theater department productions and concerts. There are two major middle school and two major high school productions (drama and/or musical or opera) annually.

In recent years, major theatrical productions have included original plays premiering at Saint Ann's School and published works: *Into the Woods*, *The Emperor's New Toga*, *Much Ado About Nothing*, *The Ash Girl*, *The Fourteenth Floor*, *The Phantom Tollbooth*, *The Brooklyn Bridge Project*, *Saint Joan of the Stockyards*, *The Follies of A Day* or *The Marriage of Figaro*, *Mnemonic*, *The Pied Piper of Hamelin*, *Sweeney Todd*, *The Bacchae*, *The Secret Side of Nowhere*, *Ondine*,

The Tempest, Pippi Longstocking, Beauty and The Beast, Shakespeare in Hollywood, Little Shop of Horrors and My Name is Rumpelstiltskin.

Our **playwriting** program combines the performance and academic aspects of the discipline. Students study dramatic literature and produce plays, but both are perceived from the viewpoint of the playwright. The prime focus is the act of playwriting: each student writes, casts, and directs his or her own play. The process culminates in two annual high school Playwriting Festivals, one of staged readings in the lobby or the rotunda and one presented in the theater during the final week of school.

The Theater Department also includes an in-depth **filmmaking** program. Four levels of 16mm and digital video production, including a ninth grade videography course, are available to high school students as electives. Students write, produce, direct, shoot, and edit their own projects. Both classic motion picture cameras and the most recent digital video technology are available for use. Students also study film history and analyze the language of film. There are one middle and two high school film festivals annually. Students may also collaborate on original soundtracks and scores for film and video projects.



Dance is an integral part of theater at Saint Ann's. Modern dance classes in the Preschool and Lower School emphasize exercises that relax and strengthen the body and imagination while focusing attention on space, movement, and rhythm. Dance electives are offered at beginning, intermediate, and advanced levels to middle and high school students. In modern dance classes, technique and movement patterns—including those of classical ballet and African Dance—may be taught. Dance Fusion is a course for fifth and sixth graders that focuses on various styles of dance from different eras, countries and traditions. In the seventh and eighth grades, High Velocity Dance introduces students to a sophisticated repertoire and new choreographic challenges.



Three levels of high school Choreography classes give students an opportunity to design lights and have costuming input for their original dance concert pieces. Technique and individual movement are related to design and expression. Emphasis is placed on improvisation and the students' choreographic vision and voice. Faculty and guest choreographers teach, choreograph and direct pieces, as well. Students work collaboratively and as solo performers with equal confidence and joy.

African Dance classes, which are both accessible and rigorous, accompanied by professional drummers, are offered to students from the fifth through the twelfth grades. These classes focus on the traditional dances, languages, cultures and music of the African Diaspora with special emphasis on the dances of West Africa. The program also explores social and political contexts for performance across cultures. Students with interest and prior experience are sometimes invited to drum in performances.

School trips to performances, guest artists/teachers and workshops expose students to many forms of dance at the professional level. There are sometimes opportunities for international trips that focus on dance and provide context and creative collaboration.

The theater department attempts to give each student transcendent moments as artists and humans. We encourage our creative community to find the love for one another and for art—wherever art can be made.

Music

Saint Ann's students experience music as performers, composers, and historians. The curriculum provides expansive opportunities by incorporating a wide selection of courses and a diversity of instructional approaches that enable a well-rounded musical education. In all of our programs, at every age level, we celebrate the vitality of music, and make it a central part of life at Saint Ann's.

Instruction begins in the Preschool and continues in the Lower School. Early years focus on singing, beginning instrumental skills, and creative movement. Utilizing the proven methods of Dalcroze and Kodaly, and emphasizing the use of Orff instruments and techniques, students develop pitch recognition, become rhythmically aware, and connect sound with physical activity. We introduce young singers to a wide repertoire of songs from around the world.

Beginning in third grade we offer string instruction. Students choose from violin or cello, and take lessons either before or after school. Third-grade chorus provides a deeper engagement with singing and is open to all.

In fourth grade students meet two times weekly in small groups to continue their development of the skills introduced in lower school. Teachers continue instruction in notation of pitch and rhythm through singing, dictation exercises, ear training, and recorder playing. Teachers continue to use Orff instruments. Students explore music as part of history and culture. Exploration of the great masters of classical music, jazz, and world music emphasizes critical listening skills. In the early spring instrumental teachers begin to





visit classes to demonstrate the instruments that students will choose to study in fifth grade. Many fourth graders elect to sing in the Lower Middle School Chorus (grades four and five). Students who began violin, viola or cello in third grade continue in small classes, developing their skills to prepare for ensembles and chamber music.

In fifth grade each student elects to study an instrument for a full year. We offer clarinet, flute, horn, oboe, percussion, and trumpet. Saint Ann's provides instruments and all classes are taught by professional musicians. Many students continue to delight in singing in Lower Middle School Chorus. In sixth grade students can continue instrumental study. String players generally join Camerata, a large ensemble of violin, viola and cello. Advanced string players and pianists can play in chamber ensembles. Sixth graders can begin to participate in Middle School Singers, singing music in two and three parts and performing two concerts a year in repertoire that ranges from baroque to popular song. Music Lab, a very popular program, encompasses composition, technology and music production, and is held in our well-equipped music lab.

In seventh and eighth grade options expand as students have acquired a broader range of skills. Bassoon, guitar, saxophone and trombone are offered. Woodwind and percussion students can elect to participate in Woodwind Percussion Ensemble. Students can begin to study jazz improvisation in Jazz Techniques class. Brass Techniques offers third-year trumpet and horn players a class to further hone their technique and musicianship skills. Music lab classes continue, and topics in music literature and history are covered in Words and Music class, an exploration of the complex symbiosis of these two realms of human expression. Seventh and eighth graders also continue to participate in Middle School Singers.

In the High School students are offered broad musical opportunities. Composition and theory classes incorporate technology to help students progress at their individual level as they learn the language of music. In the music lab students can study electronic music composition and often score student-written films and plays. Music history and literature classes include Jazz History, History of Western Music, Opera, and Broadway/Musical Theater. An extensive voice program emphasizes both solo and choral singing through the Vocal Study and Ensembles course. All students enrolled in that course also participate in High School Chorus. Frequently classes attend concerts at Lincoln Center and operas at the Met, taking full advantage of the musical riches that New York City offers.

Our program is closely tailored to the needs of individual students. A thriving chamber music program engages our most advanced instrumentalists, selected through audition. Consort, a chamber orchestra that plays without a conductor, represents the best of our performance program, letting students take charge in their performances while rehearsing under the guidance of masterful teachers. Wind Ensemble offers intermediate and advanced wind players the chance to improve ensemble skills. Chamber Orchestra provides large ensemble experience before students join Consort. Students who have participated in jazz techniques classes in middle school continue, performing in combos and honing their skills in improvisation and ensemble playing. Brass Choir offers high school brass players a chance to explore the magnificent repertoire of brass ensemble music.



The school year at Saint Ann's is filled with musical activity. Voice recitals, jazz evenings, chamber music concerts, choral and instrumental performances and collaboration with poetry, film, dance and theater classes provide a wonderfully creative and diverse world

for students to explore. Our students explore opportunities outside of our walls, performing in chamber music competitions and jazz festivals. Master classes feature distinguished artists who visit and work with our students informally, inspiring the entire community. Our First Monday Concert series, open to the public, features faculty, guests and alumnae/i, often in collaboration, bringing Saint Ann's musical life to the wider community.

Visual Arts

The primary aim of the visual arts program is to elicit from students the most powerful and expressive work possible. This requires profound thought, an enlarging sensibility, and a broad understanding of

experience. Our aim is to help students invent pictorial and plastic activity to carry this wealth of feeling and thought into comprehensible artistic representation.

In the Preschool and Lower School, the aim of the Art Department is to familiarize students with a wide range of materials, techniques and pictorial concepts. We consciously differentiate our studio program from the extensive visual work carried out within the individual classrooms. Along with thematic-based projects, students enter the 'art studio' to become fluent with the 'language' of image and object making, to understand the 'instinctive' nature of the artistic process and to become more aware of their own unique 'vision.'

In the Middle School, more sophisticated concepts and techniques are introduced, with a continuing emphasis on drawing, painting and object making. Along with the continued reinforcement of pictorial and compositional fundamentals (texture, form, rhythm, color), contextual, poetic and conceptual notions are explored. Building skills are expanded through work in plaster, clay, cardboard, and wood. Ultimately, students find their own relationship to art through the viewing, discussing and making of art works.



Two art electives are offered to upper middle school students. A drawing elective includes students from both seventh and eighth grades. It concentrates on a study of light, perspective, volume and composition. Introduction to Digital Photography is open to eighth grade students who learn the basics of camera operation and the basics of software-based image manipulation techniques.

The teaching of the visual arts in the High School is a continuous process of shaping and reshaping vision, giving each individual student deeper aesthetic insight. The process occurs across a broad spectrum of disciplines: drawing, figure drawing, painting, still photography, digital photography, animation, ceramic sculpture, sculpture, printmaking, and architecture.



The drawing classes explore various techniques, conceptual approaches, and media. In figure drawing the emphasis is on a feeling for the volumetric structure of the body and the expressive potential of drawing from live models in a wide range of media. In the regular drawing course, students explore varied subject matter from both realistic and abstract perspectives, with the objective of learning to perceive form and to articulate those perceptions pictorially through a variety of drawing media.

3D Animation involves designing and constructing a set and the creation of articulated elements or characters from a variety of materials (clay, paper, cardboard). Students sequence individual scenes using a digital camera, and use computers to edit and add soundtracks to generate a fully realized film presentation.

Painting classes emphasize the study of light, color, and composition. Students paint from still life setups, nature, photo sources and from their imaginations. We also encourage students to explore abstract images and conceptual notions. Inks, water-based media (watercolor, tempera, acrylic), mixed media and water miscible oils are used.

Photography begins with an introductory course emphasizing skills (operation of a camera, exposure and development of film, and darkroom procedures) followed by more advanced courses in which the emphasis is on self-expression. Students continue to work on technical mastery, but with the understanding that the power of the image precedes all. In digital photography courses, students explore image making through an entirely digital format. Students move between the digital camera, the scanner and the computer to refine and manipulate images that are then printed through a digital printer. Traditional studio materials and processes are also integrated into the final digital presentation.



Printmaking explores intaglio techniques (engraving and etching), color printmaking, wood and linoleum cut prints, poster designs (including collaborative posters for theater productions), and screen printing.



Ceramic sculpture and mixed media sculpture are also offered. The former emphasizes slab and coil techniques as well as slip casting and mold making; the latter involves a broader range of materials (plaster, wood, wire, cardboard, papier mâché) exploring reductive, additive, and casting techniques. Both sculpture courses are concerned with producing three-dimensional abstract and representational work.

Introductory and advanced courses in architecture investigate the basic elements of design and structure as they relate to architectural practice and industrial design. Students learn to interpret the history and meaning of their physical surroundings, and the various roles that architecture has assumed throughout history. A variety of drawing techniques, projection systems, model-making approaches, and computer applications are explored.

Art history, offered in alternate years and sponsored by the History Department, is an important part of the art curriculum. A survey of global artistic styles—from the Parthenon as summation of the classical ideal, Chinese landscapes as the realization of an aesthetic tradition unrelated to western conventions and Ai Weiwei or Kara Walker as the epitome of artist-activists—the course is driven by the belief that to place a work in context is to see it more deeply. Students explore how changes in artistic styles reveal (or conceal) changes in political, economic, and social relationships and complete the course equipped with the knowledge and skills to analyze any work of art they encounter.

COMPUTER

In this rapidly evolving field our teachers and students work together as explorers and artists. Teachers demonstrate ideas and tools and turn the students loose to create. “Try it, see what happens! Can you figure out how to make it do more?” We love seeing excellence, creativity, rigor, and joy. We place students into courses based upon their experience and abilities, direct them in an individualized manner, and encourage them to move as rapidly, intensely, and broadly as they can. Our students are active learners. We provide them with the opportunity to learn by doing work that is sophisticated and challenging. We want our students to be engaged, inspired, and responsible while exploring, experimenting, expanding and pushing boundaries in classes that involve problem solving, information processing, project-based learning, and communication skills. We want students to explore the imaginative and creative uses of technology, and be empowered by having a broad understanding of what is possible.



The world around us includes dramatic technologies which are rapidly evolving because fast computers are being used to design even faster computers in turn. New machines and networks bring us more artificial intelligence, nano-technology, mobile devices (phones and tablets), social networks, wireless service, portable cameras everywhere, GPS tracking, digital maps, and touch screens. Vastly improved software toolkits make “child’s play” of what once was difficult, such as building computer games or online databases. Because



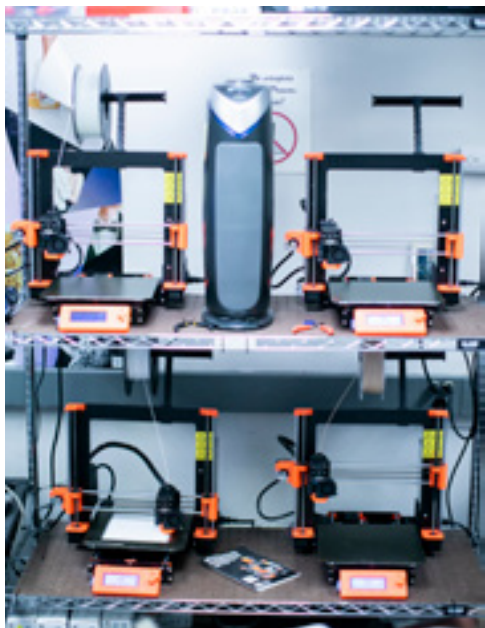
the machines around us are daily growing more powerful, convenient, useful, interesting, and commonplace, our students can create and organize information (including ideas, art, biographies, poems, and algorithms) and can even make their projects accessible to people with limited vision or hearing. With computers our students can share and find ideas more readily than ever before, and can write programs to direct other machines such as printers, music synthesizers, robots, remote sensors, cameras, and 3D printers.

Our teachers are also students in this new world of technology, and we strive to be informed guides across a broad range of ages and skills. We serve students from third through twelfth grades, offering full-year classes in a wide range of topics including animation, circuitry, programming, 3D printing, web design with databases, programming for smartphones, and introductory courses that include creation and manipulation of graphics, spreadsheets, program code, and databases. (Visit <http://tinyurl.com/sacc-software/> to find links and information about the apps we use, many of which are free and downloadable.) We structure computer classes like art studios, imagining the students as artists at their easels. Class time consists mostly of hands-on computer time, with the teacher circulating and helping.

In the Lower School, the computer is a tool for writing and drawing. Third grade students come to the computer center once a week for classes with computer teachers. They spend time learning to type, and composing stories with pictures and animation using multimedia toolkits that combine sound, art, animation, and some basic programming. The class sessions usually include a brief review, a demonstration of new material, and a work period

where students practice and try out the new skills introduced. While planning, building, and rearranging their projects, students learn how to navigate in the computer environment—creating, saving, revising, and building assets for their projects.

In the Middle School, the Computing 1, 2, and 3 courses use the computer as a tool for multiple disciplines, showing students a crazy variety of tools and languages for graphics, music, writing, video, and web page design. We give an introduction to object-oriented programming in all of those classes, and for students with a deeper interest in logic, computer control, and symbol manipulation, we also offer Programming 1, 2, and 3, Game Programming, and Physical Computing (wires, lights, chips, sensors, etc.). Other offerings include 3D printing, Animation, and (sometimes) iPhone programming.



In the High School, students may choose among classes such as 3D Printing, Physical Computing (wires, lights, micro-controllers, internet, sensors, etc.), and Programming 1 through 5. We also run year-long classes in special topics for advanced programming students. In recent years we've taught Compiler Design, Graphics Programming, Artificial Intelligence, Game Programming, and Algorithms for Genetic Sequencing. These courses consider computer science as an intellectual discipline: students see the theoretical foundations of computer languages (grammar, syntax, semantics), practice with fundamental algorithms (sorting, searching), and design data structures (objects, classes, linked lists), while learning some of the powerful

computer languages: Java, Python, Swift, Processing, C++, and JavaScript. Livecode, in particular, serves as a convenient introduction to object-oriented programming.

We make sure that all students at Saint Ann's are skillful with computers: nimble, confident, resourceful, and creative. Students should be able to use the computer as a tool for all kinds of work and art: writing, performing mathematical analyses, testing hypotheses and analyzing scientific data, laying out publications and databases and websites, producing animation, composing music, designing lighting and sound and scripts for plays. Computers are becoming more powerful and students are growing in skill every year, giving us a moving educational target and leaving room for students to constantly amaze us.

ENGLISH



After spending two months in the building, a visiting teacher once remarked that students at Saint Ann’s practice creative writing the way students elsewhere train for the football team. That observation cuts close to the bone of the English curriculum. Our theory and practice of the subject rise not from a list of set books but from a belief that reading and writing embody impulses of the same activity—a hands-on investigation of the way language generates writing and redefines the world within us and without. We regard English as a linchpin that vitally couples academics and the arts.

In the early years of the Middle School our major aim is to foster the natural ebullience and imagination that make children love the experience of reading and the activity of writing. We fiercely engage in these activities for their own sake and not as preparation for a nebulous or required next step. We believe that we best serve our classes by choosing from our individual passions, and our texts often include fantasy and historical fiction, autobiography and drama; fourth and fifth graders may read *Tuck Everlasting* or *Roll of Thunder, Hear My Cry*, Shakespeare or Coleridge. For the first time, a fourth grader discusses books with an entire class. Discussions are energetic and spontaneous, yet directed. Focusing on questions of plot and character, setting and language, children learn how to read and how to articulate their feelings and perceptions. Most of their vocabulary work is drawn directly from the readings

so that new language has a context. Students read outside books; most do not need to be prodded.

Young middle schoolers are poets, playwrights, and sagamakers. Their acrobatics in story and poem remind us that their inventiveness ignites our days together. They assimilate new forms easily because language is a magical tool for them, and in their creative work we encourage them to write what they want to write. They also encounter expository exercises like character portraits, chapter discussions, short essays, and newspaper articles. In open and assigned topics we teach them how to make complete sentences and how to punctuate and paragraph dialogue. Their spelling and penmanship are scrutinized; we want them to be both creative and careful. At this age grammar is still an unobtrusive handmaiden to writing. In exercises delivered in workbooks or generated by teachers, students learn spelling rules, wrangle with ie's and ei's, and practice the exacting skills of proofreading.

As middle school students mature, so does their curriculum. Beginning in the sixth grade, students think less literally, discuss abstract issues, move further away from immediate experience, and explore more subtly what motivates characters. Many students of this age, especially seventh and eighth graders, have a prodigious appetite for information and facts, and their capacity to take intellectual leaps grows dramatically. The readings become correspondingly more demanding, the approach to them more rigorous. While most texts are modern, many sixth graders encounter Shakespeare for the first time when they read and act *A Midsummer Night's Dream*. (Shakespeare is curricular from the sixth through the tenth grade, a primary player in many electives, and essential throughout the program.)



Children in the sixth grade may read Harper Lee, Orwell, and Hansberry; most seventh graders read *Macbeth*, *Huckleberry Finn*, and *Annie John*; eighth graders continue with classics and much twentieth-century literature (e.g., Shakespeare, *Black Boy*, *The Catcher in the Rye*).



Insight, imagination, and argument ricochet in the seventh- and eighth-grade classrooms. Many writing assignments are creative but specifically defined; children write detailed character studies, visual descriptions, and style imitations. Translating perceptions from reading and discussion to essay writing is a painstaking goal of these two years. Believing that analysis both invites and requires students to explore their individual responses to a text, we proceed with thesis formation, paragraph and evidence building, and the crafting of short essays. In addition to writing on literature, eighth-graders develop a major research paper shared by the English and History Departments. For six to seven intensive weeks in the spring, the entire grade learns the step-by-step process of choosing and limiting a topic, researching it, scrupulously outlining it, and writing it. The project is demanding, illuminating, and invariably exciting.

All writing—creative and expository—is tethered to increasingly complex grammar and vocabulary work. Thorough mastery of the parts of speech and grammatical functions in a sentence is expected by the end of seventh grade. Eighth graders review what they have learned and also encounter clauses, modifying phrases, and more difficult problems in usage.

Short stories and poems, personal memoirs and plays—the creative experiments of the year—we share repeatedly inside the classroom. To broadcast student writing outside the classroom we produce an annual literary magazine whose staff includes seventh and eighth graders working with high school editors and faculty advisors. A seminar setting allows young students to learn about the editorial and production process. The delivery of the magazine to each middle schooler is an exuberant ritual at the year's end.

English in the High School is intensive, ambitious, and increasingly analytical. Critical abilities mature enormously in these four years, and students further develop the skills and discover the rewards of creative analysis. We look for sensitive, sensible, and informed reading and writing. More explicitly than in the Middle School we present a text as a work of art and as an intellectual and emotional flight plan. Most of us favor a deep, deliberate read over a swift one.

Ninth graders, entering the High School fresh and curious, encounter sophisticated literature that they discuss thematically and stylistically. They investigate stylistic devices, symbolism, structure, thematic content, historical context, and author's philosophy. *Oedipus Rex* and nineteenth- and twentieth-century writers from around the world—Achebe, Orwell, and Shelley—form the backbone of the curriculum, but Shakespeare and poets from all periods are also in permanent residence. The students' greatest challenge—and our goal—is to narrow the gap between the bursting of insights in class and the sculpting of ideas in writing. Translating their vivacity and intellect to paper is sustained, exacting work which they practice in numerous specific essays. Grammar and vocabulary work continues to enforce reading and writing skills.

Sophomores encounter increasingly sophisticated texts and demands on the quality of their thinking and writing through an intensive study of several genres. The first semester typically concentrates on drama and poetry, the second on short forms and the novel. Authors include Shakespeare, Fitzgerald, Camus, Morrison and O'Connor. Committed to a high level of skills in reading, grammar, and especially essay-making, we have created a writing conference for sophomores—a fifth class period in which small groups of four to nine students polish skills and work on individual writing problems.

The elective program for juniors and seniors presents students with flexible but demanding courses engendered by teachers' passions and studies. In selecting a course the student accepts responsibility for its content and our standards. Electives offer depth and breadth in the study of literature and writing from a range of historical periods and genres. For 2018-2019 students chose full-year courses from the following titles: *American Literature: United States?*; *The Body in Literature*; *Built It Up/Burn It Down: Politics and the Novel*; *The Fall: Temptation, Risk, and Ruin in Literary Lives*; *The Great American Novels*; *Oddballs and Square Pegs: The Literature of Outsiders*; *Queer Literature*; *Reading and Writing*; *Science Fiction*; *The 17th Century*; *World War One*. The junior-senior essay, a critical paper or series of papers growing from the course work, is a major enterprise of the elective years.

While writing in the High School is predominantly nonfiction in most classes, we encourage and exult in our students' creative work. Every English class participates in a week-long writing marathon, and all courses are threaded with creative assignments. Several times a year we invite published writers to read their work to high school students. Recently, we have had the honor of hosting such distinguished authors as Brandon Jacobs-Jenkins and Sarah Ruhl, Tony Kushner and Major Jackson, Min Jin Lee and Leslie Jamison. We exhort students to submit their best work to national contests and to the *Saint Ann's Literary Magazine*, whose student staff meets in a seminar to select the contents and compose the book. At the end of the year the entire high school gathers at the Student-Faculty Reading. We read to each other, celebrate the writer and the writing, remember why we are here, and leave for the summer renewed and hungry for more.

HEALTH



Health education is comprehensive in scope and covers a range of topics in a developmentally sensitive manner. In addition to the classroom experience, students may come to the health education center, which is open daily, to meet with the health teachers, or to make use of a variety of resources that are available to them.

Health begins with regular workshops in fifth grade. These look at growing up, personal body safety, and emotional health. In sixth grade, classes meet weekly and cover puberty, technology, and addressing social and emotional challenges. Seventh grade health focuses on identity, social pressure, stress management, and physical and emotional wellness. Eighth grade begins with an in-depth look at sexuality, consent, and healthy relationships, before addressing substances and technology. Eighth graders also meet monthly with our high school mentors.

In high school, students meet for one semester in ninth through eleventh grade. These classes are interdisciplinary in focus and weave in voices from around our school community in order to closely address issues of technology, sexual and reproductive health, mental health, eating disorders, substance use, and developing life skills. Twelfth graders attend workshops that cover the transition away from Saint Ann's and the emergence of early adulthood. Juniors and seniors are also invited to participate in our high school mentoring program where they work regularly with our eighth graders and lead conversations on everything from their memories of middle school to navigating social situations and friendships and dealing with social media.

HISTORY

The goal of the history curriculum is to cultivate a genuine, informed and critical enthusiasm for the world through history. We want to ensure that students come to an understanding of how cultures have changed over time and learn how to express themselves both in prose and discussion.



The History Department has seven course years—fourth through tenth grades—in which to familiarize students with five millennia of history. Our objective in fourth grade history is to nurture our students' curiosity about the world and our place in it. Using maps, books and other resources, students begin to understand some of the dynamic changes that occurred when people from different parts of the world came into contact with one another.

The fifth grade course is United States history: from the origins of our nation to the end of the millennium. We use a narrative style text as the basis of the course. We emphasize chronological development and cause and effect relationships, and we help students to learn new study habits, especially note-taking and critical reading. By the end of this year students should be able to evaluate and record important historical dates from lectures or



texts and to analyze the information critically. The course tends to leave fifth graders with a sense of some problems and personalities in American history, and an array of interesting and important facts and arguments within a chronological context.

Sixth grade history entails the study of the earliest human societies. We begin by examining the prehistoric transitions of early human hunting and gathering societies to herding and early settled agricultural societies before moving to urban civilizations, which we study in particular detail. We spend most of our time examining the political, social, economic, technological, artistic and religious structures of ancient civilizations. Our study of specific civilizations covers, in varying proportion, Sumer, Egypt, India, China, and Greece. Students

write short historical fictions, essays and dialogues based upon close reading of primary sources including the *Epic of Gilgamesh* and *The Descent of Inanna*, the *Iliad*, the *Odyssey* and *Antigone*.

Seventh grade history is a topic-driven study of various civilizations that begins with an in-depth study of Rome and ends with the transitional period of the late fifteenth century. In addition to the textbook, we read numerous primary sources to explore contrasting perspectives on the events covered by our travels. The rise and fall of Rome, the spread of Christianity, the rise of Islam and its spread across Asia and North Africa, and the evolution of feudal Europe are all examined. We draw parallels and make connections between the European and Mediterranean societies and their counterparts in other parts of the world, in particular China, Japan, India, and Persia. We discuss, debate, and act things out to bring the material to life and to connect it to issues today. Above all, the course stresses writing in a variety of forms, from in-class essays and historical fiction to formal analytical papers, in order to strengthen skills and develop the themes at the heart of this course.

Eighth grade history aims to cover various social, political, and economic aspects of the Early Modern Era. We emphasize non-western cultures to introduce students to aspects of

the world that expand their knowledge from the Far East to the West. The class deals with an array of topics which may include the Mali Empire of West Africa, the Ming Dynasty of China, the Gunpowder Empires of the Middle East, Aztec and Incan culture in the Americas prior to European colonization, the Black Death, the European Renaissance, and the Scientific Revolution. The course introduces students to the historical shifts in power and the impact of technology on these shifts. We also examine the process of European exploration during this time period, focusing on the voyages to the Americas and the development of the Atlantic slave trade. The course ultimately broadens students' understanding of power and nation-building and examines a variety of Asian, African, Mesoamerican, European, and Middle Eastern primary sources in this period. In addition to regular writing assignments, students also spend time building their research skills. This culminates in a formal term paper, written in conjunction with the English Department, in the second semester.

Ninth grade history is concerned with key cultural processes that historians associate with the making of the modern world. It tells the story of major events, ideas, and movements that have given shape to the modern world community as it exists today. It asks analytical questions of global significance: how did the different regions of the world come into contact so that almost every part of the world today is tied into global political, economic, and social systems, and intellectual, religious, artistic and technological exchanges? Why are some regions of the world more powerful than others, both politically and economically? The course provides a framework to support further, more specific studies in grades ten through twelve.

Tenth grade history examines the origins and development of the United States from a variety of perspectives including race, class, and gender, providing students opportunities for in-depth investigations of key moments and themes in U.S. history. In their final year before entering into the elective program, students continue to hone their skills as critical thinkers, readers and writers with a greater emphasis on historiography.

By their junior year students are prepared for our most rigorous offerings and they are invited to bring these skills to an elective of their choice. The junior/senior elective offerings are wide and varied, reflecting the passions and expertise of the faculty. In all cases, they challenge students with college-level readings, an emphasis on analyzing primary documents, and opportunities for original research. Students also consider the role of historiography in the construction of arguments and narratives. Courses range from sophisticated or thematic reviews of material covered in previous grades (*The United States Since 1945*, *African American History*, *World War One*, *History of New York*) to introductory courses in interdisciplinary topics (*Socioeconomics and Race in Medicine*, *The Medieval Mind*) and non-western surveys (*The Cold War and Vietnam in Asia*). In addition, high school students may decide to pursue topics of their own choosing through the Independent History Research program. Working with mentors from the department, the students in this program dig

deeply into particular historical issues over the course of the school year, create scholarly research papers, and present their work at an annual symposium.

Following this path of study, students leave Saint Ann's with a powerful analytical toolbox to be used in the highest forms of critical engagement with history: parsing and interpreting contradictory ideas and evidence; developing and presenting original arguments; identifying gaps in explanations assumed to be definitive; finding ruptures and silences in traditional narratives; giving voice to the non-celebrated and rendering human the old hero-gods. Armed with these tools, which are honed in the context of historical study, students become empowered as citizens, locally and globally. For we believe in a usable past, which is not to say that we teach the past so that its examples can be understood as easy equivalences to contemporary events or keys to the present. Instead, by learning to recognize patterns and discrepancies in a range of historical contexts, and to understand the push-and-pull of social structures and individuals in the process of social change, students develop the ability to use history not in the service of ideology, but "to think with"—that is, to read between the lines of rhetoric, to illuminate contradictions in policy, to expose the pretenses of power, to make better sense of the world. What they do with this knowledge is, of course, up to them.



INTERDISCIPLINARY STUDIES

Courses in this program explore topics, problems, or relationships that extend beyond the boundaries of a single discipline. In doing so, not only are the ideas of two or more disciplines considered and brought to bear, but also their methods and media. In the first year of this program, for instance, the program offered a course entitled *Notions of Space, Time, and Dimension* which employed the multiple lenses of mathematics, philosophy, science, and literature to explore the evolution of these foundational concepts. Courses that have been taught over the last few years include: *Film, Money, and Politics*, *Socioeconomics and Race in Medicine and Medical Research*, *Patterns Through Math and Music*, *Propaganda, Discrimination and the United States Legal System*, and *The Medieval Mind*. One should expect from the Interdisciplinary Program (in which the courses change each year) collaboration between different art-worlds, between art and science, between the historical and literary endeavors—always, though, with an eye towards coming to a fuller understanding of a specific topic. Not surprisingly, classes in this program are often, but not always, co-taught by faculty members from different departments.



LANGUAGE

The study of language is first introduced at Saint Ann's in the Lower School. We teach it as language arts. Beginning in the fourth grade, the language structures program takes formal charge of language studies in a three-year sequence beginning with the structures of English alone and culminating in the sixth grade in a comparison of English and Latin grammar. Seventh graders are eligible for language electives and may choose from a variety of classical and modern languages including Latin, Greek, Chinese, French, and Spanish, all of which continue through the High School. Eighth graders and high school students may also elect Japanese.



When students enter the High School, they usually continue with the languages they have studied in middle school and, if they have not already done so, frequently choose a second or even third language. Language courses in the High School become more sophisticated and demanding. Oral and written work must reflect an increasingly complex knowledge of grammar and vocabulary. Placement in all electives is based primarily on demonstrated ability; thus any such course may be made up of students from different grade levels.

Modern and classical languages at Saint Ann's supplement and are supplemented by courses in other departments. Students of Mandarin Chinese and Japanese may take advanced

electives courses such as History of China or Modern East Asia offered by the History Department, and Spanish and French students may read the same literature in translation in an English course. Courses in European history as well as in theater richly enhance a romance language student's appreciation of a classical seventeenth century play or the development of existential theater in the twentieth century. This blending of disciplines gives students the experience of language as a primary source, a tool for conversation, and an irreplaceable means for understanding.

Language Structures

The beginning of the language structures program exemplifies in many ways how Saint Ann's works. It was conceived in 1978 as the outgrowth of an experimental course for middle school students in the comparison of English and Latin grammar. The curriculum was designed over a period of time with the encouragement and suggestions of a number of faculty members. The department emerged in direct response to a perceived need for students to have a solid understanding of their own language and how it functions both separately and comparatively. It was clear that young middle school students worked adequately but without real confidence in dealing with languages other than English. In fourth grade the curriculum emphasizes the nature of literature as a reflection of society. Toward that end, students read a variety of fairy tales and myths in an effort to discern the ethos of the people who produced them. As the year progresses, classes focus on folkloric writing, delving into the work of individual cultures and authors. Students are often asked to create their own fantastical worlds in response to texts. In their writing, they work on a narrative and purposive allusion, developing real stories that have a beginning and an end.

The fifth grade curriculum focuses on different types of writing, with an emphasis on genre and form. Special attention is given to memoir, mystery, comedy, and dystopias. The students read short fiction, novels, poems, and plays. Teachers concentrate on helping students experiment with each mode of expression in their own work. Beginning in January, the fifth graders select a topic for a three to five page research paper. Topics are drawn from the broader subject area of New York and students learn to use the research facilities in the library. The paper is intended to teach the students reading for facts and information from a variety of sources and then organizing that information into a viable whole.

By sixth grade, students are conceptually advanced enough to understand fully that languages exhibit complex structures. In the Introduction to Languages course, students consider a variety of languages as phenomena worthy of study on their own terms. By examining the morphology, syntax, phonetics, and lexicon of English (and, occasionally, other languages), students develop a structural framework with which they can account for the grammar of any human language. Concurrently they develop a working descriptive grammar of English. In the second half of the course students turn their attention to Latin, where they reconsider comparatively the grammatical concepts they developed in the first semester, while at the same time learning the skills to acquire another language.

The success of the language structures program has been remarkable. An emphasis on the different functions and forms of writing in the early years enables students to express themselves coherently and artfully on paper. The examination of the grammars of English and Latin, and the acquisition of



grammatical terminology to describe any language, deepen their understanding of syntax, semantics, and morphology and position students to study foreign languages efficiently. Indeed, it is common for our students to reach high levels of proficiency in two languages. Many students will do the same with three.

The formal study of a foreign language at Saint Ann's generally begins in the seventh grade. From time to time, exceptions are made for those students who come from bilingual homes, have lived in other countries, or are already proficient in a second language. Most seventh grade students have had the benefit of the three-year sequence in the language structures program and are therefore well-equipped to face the intricacies of a foreign language.

Asian Languages

Mandarin is offered from the seventh through twelfth grades. The course sequence covers: 1) the spelling system—Pin Yin; 2) phonetic rule—the four tones; 3) character writing—both traditional and simplified forms in accordance with the students' preference; 4) conversation—idiomatic modern Chinese in current use among native speakers, especially everyday social communication and specific situations; 5) reading—stories, proverbs and idioms, poems, newspaper clips, and authentic Chinese literature works at advanced levels. The annual celebrations of the Moon Festival and the Chinese New Year provide students with opportunities to further their understanding of Chinese history, culture and traditions while writing calligraphy, making lanterns, singing Chinese songs, etc. Language studies are also supplemented and enriched by a wealth of information about Chinese current events, history, geographic regions, pop culture, and local customs and traditions that are discussed in class and explored through slide shows, films, field trips and guest speakers.

Japanese is offered as a language elective beginning in eighth grade. The first two years focus on basic sentence structures, verb and adjective conjugations and vocabulary. The emphasis

in the first year course is on mastering the two phonetic systems, Hiragana and Katakana. Kanji (Chinese characters) is also introduced. The second year builds on the first, adding an emphasis on composition. The students are also introduced to a variety of social situations in which the use of keigo or honorifics is required. The third, fourth, and fifth years continue the emphasis on speaking, writing, listening, and reading to allow continued growth in the mastery of Japanese. In Japanese Conversation, students further their ability to function in various social situations with greater spontaneity, following cultural codes. In each of the grades we continuously explore Japanese culture and traditions from ancient periods to current popular trends through extensive examination of Japanese history, philosophy, art, etc.



Classical Languages

Both Latin and Greek are offered as full-time languages. In the first two years of the beginner Latin course (seventh and eighth grades) students are introduced to all of the forms and syntax necessary to read Roman authors in the original. By the second half of the eighth grade, students often begin reading the Latin prose and poetry of ancient authors. The intermediate course, Poetry, Prose, Drama and the Novel, teaches selections from authors including Petronius, Plautus, Catullus, Cicero, Sallust, Horace, Vergil, and Ovid. The course focuses on Latin literature as literature and serves as a grammar review that will enable the students to read Latin more quickly and more fluently. Having completed this course, students begin the elective program, first studying Vergil's *Aeneid*, then choosing from electives such as: *Livy*; *Skepticism*; *The Declines and Falls of Rome*; *Another Antiquity*; *Tacitus*; and *The Epyllia*.

The Greek program closely parallels the Latin program. The first year focuses on acquiring basic forms, syntax, and vocabulary, in order to facilitate the reading of Greek authors. By the end of the first year, the students have gained enough mastery of grammar and vocabulary to read slightly adapted original Greek texts. The second year concludes the study of forms and complex syntax and serves as an introduction to translation of passages excerpted from Aristophanes, Apollodorus, and Plato among others. In the third year, students read Plato and sometimes a tragedy. In the fourth, fifth, and sixth years students elect courses such as: *Homer, Odyssey*; *Homer, Iliad*; *Greek Tragedy: The Oresteia*; *One Thousand Years of Greek Writing*; *Sophocles' Ajax and Philoctetes*.

In both the Latin and Greek programs, high school students can take accelerated introductory courses that cover two years of material in one year.

Romance Languages

In teaching Romance languages, equal emphasis is given to the four fundamental language skills—listening, speaking, reading, and writing. The basic structures of these languages are introduced in middle school: seventh graders learn useful everyday sentences and expressions and are expected to master them in both written and oral forms. Drills, dialogues, audio visual materials, elementary readings, songs, and games are used to facilitate and enliven the process.

The eighth grade curriculum reinforces and broadens the students' understanding of fundamental grammar and syntax while expanding their vocabulary in the foreign language. With strong emphasis on the mastery of verb conjugations and simple grammatical patterns, our program fully promotes skill development through discussion of supplementary reading material and a variety of writing assignments. Oral expression, regardless of skill level, is encouraged and occurs formally in the classroom as well as in the casual atmosphere of our school halls.

In the high school, students who have completed the middle school program continue on into our level 2 classes. High school students may also begin their study of a first or second Romance language at any time during their high school career through one of two classes: for students who have never taken another Romance language or who have had shaky beginnings in French or Spanish and want to start afresh in order to build a solid foundation, we offer a High School 1 class; for students who have successfully completed at least one year of a first Romance language and wish to add a second we offer an accelerated course in which they may cover two years of that second language in one.

Our intermediate high school classes (levels 2 and 3) broaden students' skills in all areas through the study of more complex grammar and more sophisticated vocabulary. More extensive readings (poetry, stories, short books) and writing assignments as well as diverse



aural comprehension and oral expression activities are an integral part of our intermediate curriculum.

At level 4 students may choose between classes that focus on the study of contemporary French-speaking or Spanish-speaking cultures and incorporate more hands-on activities (Language and Culture), or that focus on the study of classic and contemporary literary works and advanced grammar and that incorporate more extensive writing assignments (Language and Composition).

Our level 5 classes include both traditional literature classes and classes focused on contemporary writers, cinema and art. In all our advanced classes, students continue to refine their skills in every area of language acquisition while developing their sensitivity to elements of style and tone and their ability to appreciate and critique works from the literary and visual arts. Discussions of these works serve as a catalyst for self-expression and as a means of further understanding French and Spanish cultures. We encourage expository as well as purely creative writing at all levels. Students who wish to focus more exclusively on improving their oral expression are invited to take conversation classes.

LIBRARY

We are a community of readers at Saint Ann's, and the goal of the library is to foster this reading community. In both the Lower School Library and the Annie Bosworth Library in the Bosworth Building, we work to connect readers to books they will love and to promote critical thinking, creative problem-solving, and intellectual curiosity. The two libraries at Saint Ann's play an integral role in the curriculum and in the school community in general.



The Lower School Library

The Lower School Library, serving children from kindergarten through third grade, is situated on the first floor of The Farber Building. The collection contains more than 19,000 volumes, ranging from alphabet books to classics like *The Hobbit*. Every child in the Lower School participates in two library periods each week: one to check out books and the other to listen as a librarian reads aloud. Students call these periods “library pick-out” and “library story.”

During library pick-out, students are given the freedom to roam through the stacks to select books. Pick-out helps children develop not only their love of reading, but a real sense of independence in a library setting; they choose the books that interest them. Each child gets to take two books home every week. One of these books,

called a “reading book,” matches the child’s independent reading level; the librarians help the children make appropriate choices. The other selection can be any book in the library, and is



called the “anything book,” or, occasionally, “my everything book!” The children are encouraged to explore the many genres available in the library.

Library story, a former student reminisces, “is like listening to a play, because the librarians give voice to every character.” Librarians read to every class. In kindergarten and first grade, the children help decide what to read; kindergarteners choose books about animals and first graders choose books about countries. Second and third graders hear a variety of chapter books read aloud, in a range of genres from fantasy to nonfiction. When a book is finished, each group undertakes a related project—such as creating a book cover—the results of which are displayed near the library for parents and other children to admire. There’s always something fun going on in library story; as

one second grader said, “I love when we finish a book, because then we get to do a project. But I love when we’re in the middle of a book, too.”

When children finish third grade and move on to the library in “the big building,” they have been exposed to thousands of books and have developed into a community of readers, ready to explore new horizons and challenges.

The Annie Bosworth Library

When students enter the Middle School in fourth grade, they graduate to the Annie Bosworth Library in the Bosworth Building. This library contains more than 27,000 print books and offers students and faculty access to an ever-growing digital library. It offers dozens of scholarly and popular periodicals in both print and digital form, and provides local and remote access to myriad research, news, and educational databases. Visit the library one day, and you may find serious scholars arguing fine points in the *Aeneid* while sitting alongside readers dissecting the plot twists and turns of the latest popular dystopian thriller. Another day, you may spot a middle schooler devouring the newest volume of a manga series or a newshound perusing the editorial page of *The Wall Street Journal*. What wild synergy might develop between these disparate library patrons? There’s no telling. The library is far more than the sum of its volumes.

Children come to the Annie Bosworth Library for regularly scheduled classes, to do research for class assignments, and to browse, study or check out a book for fun. The library maintains an open door policy; high school students are free to come in any time. Middle school students may use the library during lunch and study periods, as well as after school.

Once a week, all fourth graders have library class, in which they are read to by a librarian who also acquaints them with the library and helps them choose books for pleasure reading. Classes have a maximum of twelve students, ensuring that each child receives personal reading advice. In fifth grade a library elective is offered. In this class, students learn about the Dewey Decimal system, learn to use online databases, and perfect research strategies. Students are taught the importance of evaluating websites and other research material for currency, relevance, authority, accuracy, and purpose. The librarian also reads aloud to students; even these more mature kids love to sit and listen to a great book. A highlight of the fifth grade library classes is the ever-popular annual Harry Potter night.



To encourage pleasure reading over the summer, librarians compile suggested summer reading lists. The lists for the middle school and high school students are annotated and include links to copies in our digital library when available. The high school list is unique; it is made up of suggestions from faculty and staff and is distributed to adults in the community as well to as high school students.

The Annie Bosworth Library is available for all teachers to schedule classes for research projects. Librarians provide bibliographic instruction to large groups or on an individual basis, depending on the nature of the project. Beginning in the fourth grade, teachers in a variety of curriculum areas assign research projects that require students to use the library independently. There

are also set projects in each grade. For example, all fifth graders spend a week in the library with their Language Structures class conducting intensive research for a paper, often on a New York City-related topic. Eighth graders complete a term paper with their humanities

classes on a topic of their choice. In ninth grade, students write another term paper, this time focusing on a historical topic. The library plays an integral role in all of these research projects.

The library is for reading, research, browsing, and thinking. We want our students to be lifelong readers, thinkers and intellectual explorers. To that end, we engage students with our curriculum, collection, and programming. Since 2004 we have run a Middle School Author Series in conjunction with the English department; the goal is to have a writer come and speak to each grade. Guests have included Jason Reynolds (author of *Long Way Down*), Joan Bauer (*Hope Was Here*), and Adam Gidwitz (*The Inquisitor's Tale*). Fourth through seventh graders are invited to participate in the Mock Newbery Committee each fall; some read more than twenty books as they try to pick the best of the year! High school students meet to discuss the merits and shortcomings of National Book Award finalists. The library also hosts a faculty and staff book group, regularly attended by people from a wide range of departments. The plethora of activities in the library furthers its mission: to encourage and celebrate books and knowledge.



MATHEMATICS



The Mathematics Department at Saint Ann's is committed to inspiring a sense of joy and confidence in mathematics. We view math as an art form. While exploring the power and beauty of mathematical systems, we aspire to develop thoughtful and precise reasoning in all of our students.

Our teachers pursue deep and compelling questions, challenging our students in their most creative and ambitious moments, while at the same time providing instruction in fundamental principles and algorithms. They lead investigations of number, shape, and pattern, urging students to pose questions, and to communicate their ideas both verbally and in writing. They foster an atmosphere of experimental fervor, encouraging students to make conjectures, to generalize results, and to verify and prove their hypotheses whenever possible. Their freedom to shape the curriculum within guidelines enables them to share their love of mathematics in a way that is most natural for them. Students and teachers develop a comfortable dialogue, and there is also ongoing dialogue among math teachers in which ideas and materials are openly exchanged.

From the Lower School through the High School, math classes are formed to accommodate each student's pacing needs and manner of engagement in the learning process. We strive to make each classroom a vibrant mathematical community where students are able to work together to pursue common goals. The math classes are formed at the end of each school year and are reevaluated and adjusted throughout the subsequent year to ensure that the needs of no individual are compromised.

In the Saint Ann's Mathematics Department, informal investigations of number, shape, and pattern precede formal manipulations and codification. In Lower School, we explore the workings of base-ten arithmetic and learn to compute using the four operations. We investigate ancient number systems and encourage our students to create their own number systems. We give them the opportunity to play with polygons, tangrams and pentominoes, to develop an intuitive feeling for shape and space. Throughout the Lower School, a math enrichment program introduces mathematical games, puzzles, and construction projects. Students are provided with the opportunity to follow through with these activities throughout the week during free time. We create a body of mathematical experience in a setting that is fun and exciting, and encourage our students to become authors of their own mathematics.

In the Lower Middle School of the fourth and fifth grades, we begin a more formal investigation of base-ten arithmetic. The students' understanding of the relationship between the four operations and the meaning of a fraction or a mixed number is developed through exploration of the number line, the ruler, fraction bars, and pie charts. The four operations are applied to whole numbers and fractions in problem solving. Counting and strategy games support the student's awareness and interest in number patterns. Throughout the Lower Middle School, students are encouraged to make observations and form generalizations (for example, is it true that the sum of an odd number and an even number is always odd?).

In the sixth and seventh grades, we begin a more thorough investigation of the real continuum and apply it to the art of measurement. The concept of base-ten place value is extended to the right of the decimal point and we move to the left of zero on the number line to explore the world of negative numbers. The difference between rational and irrational numbers is explored. We examine the concept of a ratio and scaling with respect to similar figures, percents, maps, or architectural drawings, encouraging all of our students to set up equivalent fractions and to think proportionally. Variables are introduced and students begin to model word problems algebraically. They are asked at this point to begin to express generalizations and verify conjectures in abstract form.

Throughout the entire Middle School, we explore topics in logic, number theory, set theory, algebra, geometry, and modular or other-base arithmetic. Our students intuitively explore the concepts of unknowns and balance long before they are introduced to the algebraic laws

of equality. They compose and defend logical and geometric arguments long before they are ever asked to perform a formal proof in Geometry. We also offer electives in Problem Solving, Mathematical Art, The Game of Go, and others to provide even more avenues of mathematics for students to explore. Middle school students may participate in various math competitions including MathCounts, AMC 8, and others; some of our students have advanced to the national level of the MathCounts competition.

In eighth grade, students begin a formal course in Algebra. It is the first year of high school level mathematics. In Algebra 1, students develop their ability to model and solve word problems by assigning variables and determining the precise relationship between variable expressions. In the process of graphing the solution sets of linear equations on the Cartesian plane, students gain familiarity with the concepts of slope and intercept. They find simultaneous solutions to systems of equations and apply factoring in order to find the roots of quadratic equations. These investigations promote arithmetic and algebraic fluency.

High school students are required to take four years of high school math (one of which is Algebra 1, usually taken in the 8th grade.) All students take Algebra 2 and Geometry. For these classes, students choose between a class that covers fewer topics for longer periods of time and one which moves more quickly through more topics. In addition to this pacing choice, some years a teacher may offer an alternate approach to the subject for any students who are interested (examples have included “Geometry: History and Explorations of Formal Systems” and “Algebra 2: Functions and Abstract Algebra”). Each of these alternate courses takes the place of the corresponding required class, covering the core topics by way of the teacher’s individual approach.

In Geometry, students deepen their appreciation for spatial experience by practicing conjecture and proof as modes of mathematical discourse. Students develop their ability to construct and manipulate configurations of points, lines, circles, and planes in two and three dimensions. While exploring concepts like congruence, similarity, symmetry, and incidence, students organize their observations and generate plausible hypotheses. As they test and critique each other’s theories, they grapple with composing carefully worded definitions and well-crafted proofs. Algebraic tools acquired in previous years help students untangle geometrical relationships and solve measurement problems, while discussions about transformations pave the way for later work with functions.

In Algebra 2, students solve equations, graph relations on the Cartesian plane, and study properties of functions. They use algebraic tools to explore theorems of geometry involving similar figures, right triangles, and properties of a circle. They study conic sections and higher degree polynomials. They derive the quadratic formula and analyze the roots of second-degree equations. This exploration leads to the discovery of complex numbers, the complex plane, and a formulation of the Fundamental Theorem of Algebra. They explore exponential



and logarithmic functions. The expansion of the binomial leads to a generalization of the binomial theorem and its application to problems involving counting and probability. All students also take a weekly Computational Fluency class in the ninth grade. The goal of Computational Fluency is to expose students to the content and format of questions that arise in the SAT and ACT standardized tests. Students are given brief reviews of each topic these tests cover and are then given time to practice solving problems of varying difficulty.

In addition to the required courses, high school students may choose from a variety of electives such as: Trigonometry and Analysis, Calculus 1, Calculus 2, Probability and Statistics, Advanced Problem Solving, Game Theory, Group Theory, Linear Algebra, Non-Euclidean Geometry, Fractals and Chaos, Independent Math Research, Number Theory, Math of Life, Sports Statistics, Introduction to Logic, and a variety of other one-semester courses offered each year. Students also have the opportunity to participate in the New York Math League and American Mathematics Competition. Many of our high school students have gone on to represent the New York City math team in national competitions. On several occasions Saint Ann's students have represented the United States in international competitions. The breadth of our curriculum reflects the wide range of experience of our faculty in mathematics, science, and the arts.

RECREATIONAL ARTS

Saint Ann's recreational arts curriculum is rooted in the idea of providing a positive, creative, safe environment in which to foster an awareness of the value of physical activity and athletics. We are committed to engaging students in a process that will enhance their lives now and in the future.



Physical fitness is a lifelong objective. Our classes and activities from preschool through twelfth grade reflect this belief, putting substantial emphasis on the idea that the experience should be a joyful one. Students are encouraged to explore our physical education and athletic offerings not only to enhance their health, but also to learn the lessons inherent in trying new things, competing and facing challenges.

The foundation of our program is taught in the Preschool and the Lower School. During these years the children receive their initial exposure to movement. Constantly moving, they touch, climb on, jump over, balance across, and run toward any obstacle or challenge we



offer, and we offer plenty! By the time they have reached third grade, they have explored movement in relation to space, time, and form, learned basic skills in team and individual sports, and learned to interact in large and small groups, working toward a shared goal.

In the fourth grade, a challenging transition occurs. Each child must negotiate his or her own complex, departmentalized middle school schedule. Individual attention is given to ensure a positive adaptation to the new and often larger gym classes with older children. Fourth, fifth, and sixth graders continue to develop through drills and game-playing experience, with an emphasis on rules and beginning-level strategies. Our lunchtime intramural program is open to all lower middle school students, often providing them with their first chance to be a member of a team.

Seventh and eighth grade students refine the skills they have learned in the earlier grades. They are ready to use more complex individual and team strategies in sports and to challenge themselves and each other at a higher level. In addition to the “traditional” sports curriculum, these challenges can be achieved through alternative activities such as badminton, bocce, indoor climbing, ultimate Frisbee, fitness room, and jump rope, as well as through electives in exercise, fencing, karate, yoga, and inward bound (adventure training). Upper middle school students may join interscholastic teams in baseball, basketball, cross-country, gymnastics, soccer, softball, track and field, and volleyball.

We use team teaching to maximize student-teacher interaction, and we organize the classes according to age. This method provides an opportunity for individualized attention and skill development. During the fall and spring our classes are conducted outdoors; in the winter,

we teach classes in our large and small gymnasiums, fitness room and our apparatus room. High school students can begin to focus on developing their own program of life fitness, and the high school courses are designed to show students their many options. For the teachers, working with high school students is more like sharing their own ongoing learning process in both its physical and creative aspects. We take more risks, understand more precisely, and strive harder toward mastery.

Two major areas constitute the high school program: recreational classes and interscholastic teams. We encourage the students to join in all activities. High school classes are offered in adventure training, basketball, climbing, cycling, exercise, fencing, flag football, floor hockey, karate, Parkour, physioball, Pilates, racquet games, running, “Sports, Games, and Fitness,” table tennis, tap dance, ultimate frisbee, weight training, and yoga. High school students may join interscholastic teams in baseball, basketball, cross country, fencing, gymnastics, soccer, softball, squash, track and field, and volleyball.



SCIENCE

If I have seen a little further, it is by standing on the shoulders of Giants.

–Attributed to Isaac Newton, 1676



The Science Department aims to lift students to the realm of intellectual Giants by providing the necessary tools and skills, be they binoculars, graphs, or pulleys, to reach great heights. Science is an enterprise that ideally transcends boundaries and belongs to the whole of humanity. The primary mission of our faculty is to create a collaborative, positive classroom experience driven by curiosity and passion, where students experience science as an engaging and uplifting endeavor.

We are conscious of the importance of broad scientific literacy in a world in which science and technology play an ever-increasing role. We seek to prepare students to engage in scientific conversations that bear on global policy, as well as the arts and humanities. Students will become familiar with the large issues of our time, and will develop the critical, scientific skills to evaluate new challenges. Students begin to appreciate the joys—and prevalence—of multidisciplinary work.

The science curriculum at Saint Ann's leads students to realize that science is not simply an ocean of memorized facts, formulae, and unfamiliar terminology, but a way of looking at the universe, a mode of asking and answering relevant questions. At every age, experimentation is stressed. Throughout the varied disciplines, students design procedures and gather, analyze, and interpret data. Mathematical, statistical, and effective science writing skills are consistently emphasized. Field trips are taken to supplement classroom learning. Lessons are enhanced by the professional expertise of guest speakers.

In the younger grades, the emphasis on science is gradually increased from preschool through the third grade. In the Preschool, the Kindergarten and in first grade, science is integrated into the curriculum by the classroom teachers with support from science faculty. Second graders have a science lesson each week in their home classrooms taught by science faculty. When they reach third grade, students begin to travel to science labs in the Bosworth Building once a week for classes with science faculty. The topics covered are as varied and inspiring as chemistry, entomology, electricity, and botanical classification.

Beginning in the Lower Middle School, science is a full-time academic class, meeting four times per week. Fourth grade science introduces many subjects, including anatomy, evolution, geology, chemistry, and cell biology. Highlights include an owl pellet dissection, chemical demonstrations, and a field trip to the American Museum of Natural History. Fourth graders begin to use microscopes, balances, and other laboratory equipment. They also keep a detailed lab binder—a practice that they will continue throughout many middle school classes at Saint Ann's. As a culmination of a year of scientific experimentation, fourth grade students design independent research projects, and present their research in lively in-class "poster symposia."

In fifth grade, the general topic of concern is water. Students spend the first term investigating the chemical and physical properties of water through rigorous experimentation. Surface tension, buoyancy, and factors affecting boiling and freezing points are just some of the topics considered. The water cycle and weather are also explored as a way to observe the properties of water. We also investigate water quality and the natural and manmade influences on our waterways. During the spring, students concentrate on a study of oceanography and marine biology, and come to appreciate the diversity and the delicate balance of life in the oceans. The year culminates with a visit to Fulton Ferry Landing, where students have the chance to review what they've learned about NYC geography, water chemistry, meteorology, and plankton.

Sixth grade science takes students on a tour of the physical world, from the motion of distant galaxies at one extreme to that of electrons at the other. Major units include astronomy, kinematics, electricity, and magnetism, which are explored through research projects and experiments in addition to class discussions. There are various engineering assignments



throughout the year, such as a series of egg-drop competitions, and the much-anticipated house-building project in which basic electronics principles are utilized, with the opportunity for some fabulous architectural designs. Recent inter-class projects have also included a Rube Goldberg contraption demonstration and the Pinewood Derby. Sixth graders take an annual field trip to the New York Hall of Science.

Chemistry and the intricacies of the periodic table are studied extensively in seventh grade. The class goal is to connect chemical theory to everyday life experiences and applications. Students explore atomic theory, boat building, and chemical and physical transformations. Armed with this knowledge and the many lab techniques they practice throughout the year, students end the course with a thorough and independent separation and analysis of a mixture of chemical components we affectionately call “sludge.”

Human biology, in all of its complexity and detail, is presented in the eighth grade. The major organs and body systems are examined from the standpoints of both their morphology and physiology. Moving from the microscopic to the macroscopic, students are introduced to how these systems work together to create a functional whole. Many genetics, health, and pathology topics are investigated over the course of the year, augmented by dissections and other labs, as students work to understand the human body in a manner that satisfies their immense natural curiosity.

In addition to their regular science class, students in the fifth through eighth grades may also elect a physical or biological sciences elective. Some specific course topics have included forensics, earth science, food science, and engineering.

In high school, students take a minimum of three years of science, one of which is general biology and at least one of which is a physical science course. Most students, however, take at least four full-year science courses, and many take more than one per year. The comprehensive biology course is generally taken by ninth graders, who spend the year in rigorous investigation of the living world from molecules to cells to entire ecosystems, studying organelles, cellular respiration, mitosis and meiosis, genetics, and plant biology, among other topics, with evolution serving as a unifying theme. Students work with microscopes and are introduced to the fundamental lab techniques of molecular biology and modern genetics.



Students are encouraged to take both chemistry and physics early in their high school career, as these courses are often prerequisites for advanced study in the sciences. The department offers advanced second-year classes in biology, chemistry, and physics, and a wide array of electives in each of these disciplines as well. Elective courses vary from year to year, depending on student interest and faculty expertise. They may be either one or two semesters long and differ in their level of difficulty. Recently offered electives include Animal Behavior; Astronomy; Advanced Biochemistry; Organic Chemistry; Chemistry of Cooking; Advanced Physiology and Medical Ethics; Environmental Science; Sustainable Design;

Molecular Biology; Marine Biology; Oceanography; Neuropsychology; The Science of Music; Introduction to Quantum Mechanics; and Classical Mechanics and Relativity.

The high school independent research program provides an additional opportunity for students to choose their own paths of scientific exploration. Individual students or groups of students seek out science faculty advisers with a particular area of expertise to guide them. The topic and pace of the research is set by student motivation, experience, and time constraints. Research students attend scientific lectures and exhibit their findings at our in-house Science Research Symposium held annually in May.

Students occasionally participate in outside research or academic programs, and competitions such as the New York City Science and Engineering Fair, the International Brain Bee sponsored by the Dana Foundation, or the Science Olympiad. A group of our Independent Science Research students has participated in the Multi-School Independent Science Research Symposium each year as well. Our department has also had a marine science team participate in the National Ocean Sciences Bowl since 1999, taking first place at the New York State level Bay Scallop Bowl in 2014.



SEMINARS

Our seminars are love affairs. At the core of this program is the central Saint Ann's value of learning for learning's sake, and the commitment that students and faculty bring to these fully elective endeavors is a testament to the joy that such collaborations can bring. Seminars are held at odd hours, often at the end of the regular school day, because the busy schedules of the instructors and the students allow no other time. These courses are intensive 1.5-hour periods in which students undertake enormous amounts of study and/or creative work in fields that they might not otherwise encounter. These unique offerings are presented by teachers outside of the domain of their departments and in addition to their regular teaching load (and generally without additional pay).

Recent offerings have included: *Fly Fishing*, *Poetry Writing Workshop*, *The Portrait of a Lady*, *Toy Design*, *The Art of Debate and Rhetoric*, *Philosophical Problems*, *Kite Making*, *The Financial Environment*, *Space Colonies*, *Internship at the Preschool*, *Fire Works*, *High School Literary Magazine*, *American Dissent*, *Bible Shenanigans*, and *New Narratives*.





Saint Ann's School
129 Pierrepont Street, Brooklyn, NY 11201-2705
T 718-522-1660 | www.saintannsny.org