

SAINT ANN'S SCHOOL

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MIDDLE SCHOOL

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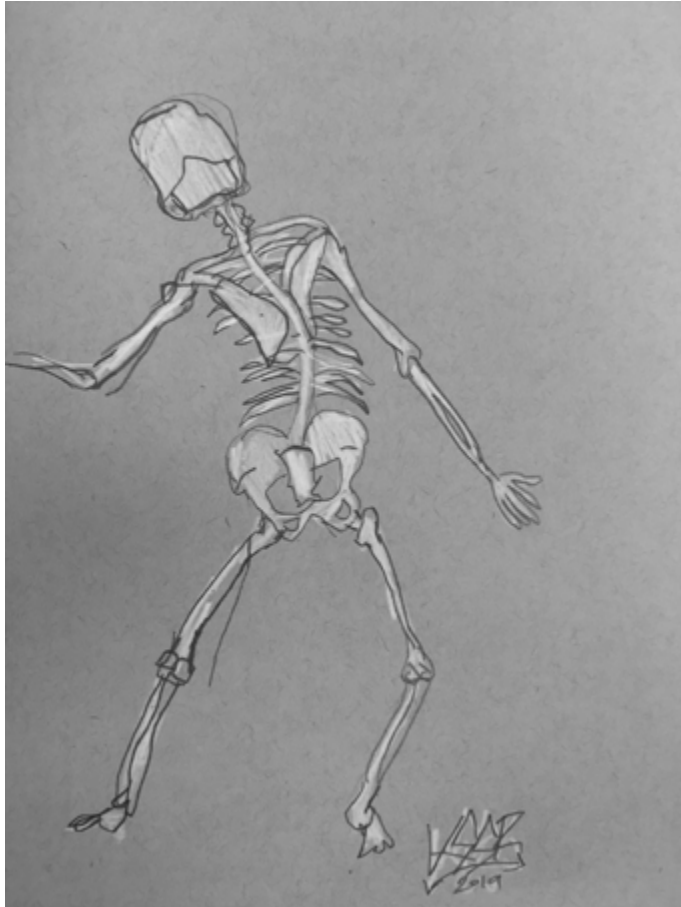
COURSE CATALOG

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2019-2020

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Artwork by: Katherine SR.

You wouldn't believe what once or  
twice I have seen. I'll just  
tell you this:  
only if there are angels in your head will you  
ever, possibly, see one.

Mary Oliver (1935-2019)  
*The World I Live In*

Dear Middle School Students,

How do you imagine your next year of middle school? What wonder fills your head? What exciting worlds do you want to play a part in creating? You hold in your hands a magic book. There is much to consider, spanning across disciplines. Stretch, explore, delve deep. Imagine.

Our offerings change some every year, so take the time to carefully consider your options. Some choices you grow into as you move through the division, others are open to you starting in fourth grade. Just because you can't (or don't want to) take a class doesn't mean you don't want to read the description. Who knows—maybe you're not the kind of person you thought you were and that class you never thought you'd take will call to you. Mark this book up. Circle, star or cross out offerings. Make lists. Talk to your friends, your teachers, your parents, your pen pals. See what they say and then reject or accept it as you see fit.

Once you have decided which classes you would like to take, mark your selections on the Course Selection and Language Selection sheets (if you are a rising 7th or 8th grader) and bring them to school. As we collect your sheets, we'll begin making appointments for you. Over the course of the next two months, all students will meet with the appropriate person to discuss and finalize their choices. Current fourth graders will meet with Margie Hanssens; fifth graders will meet with Yuri Velez; sixth graders meet with Katie Haddock; and current seventh graders meet with Betty Noel. Don't worry, we have plenty of time to get you registered, and classes will not "fill up" if you don't see one of us until later in the spring.

Conjure away! This is your first step in imagining next year!

All of us in the Middle School,  
Margie, Katie, Betty, and Yuri

*Chalk*

it makes its mark  
upon a surface of darkness  
like a dog, it sheds  
it is as pale as the snow

it dances beautifully,  
depending on who yields it  
it is obedient

— Anna C.

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# HOW TO USE THIS CATALOG

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This catalog is divided into sections for each grade. There is also a special section for students new to Saint Ann's (Welcome!). And welcome to middle school, our rising fourth graders! Within these pages, you will have the opportunity to take a look at the road ahead.

As you read through the descriptions of the offerings and discuss your options with your parents and friends, keep in mind that the number of periods available in each day and week is limited. Ideally, your schedule should challenge but not overwhelm you; striking a balance between what you must take, what you would like to take, and what you realistically have time to take requires some thought and judgment.

Also, it's important to remember that there are lots of you and lots of courses. **We will try to create a schedule that reflects as many of your interests as possible. It is important that you choose a number of classes that appeal to you while being adventurous about trying new things and flexible about putting some things off for another year!**

Please note that you can also find this course catalog online. From the Saint Ann's home page, click on *Departments*, and then 2019–2020 *Middle School Course Catalog*.

Dive in! Indulge your interests, plan wisely, and have fun!

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# NEW STUDENTS

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If you are new to Saint Ann's: Welcome! We are very glad that you have joined us in the Middle School, and we hope you are excited, too.

Registering for classes at Saint Ann's may be a bit different than in your present school. Take some time to read through the course descriptions for the grade you will be entering and begin thinking about your choices. If you have any questions, you or your parents are welcome to call or email, and we are happy to help.

All students are automatically scheduled into one art class. Fourth, fifth, and sixth grade students will also automatically receive a theater class (fifth and sixth graders have elective theater options as well!), while rising seventh and eighth grade students may choose one or more. All students must select a music course (fourth grade students will automatically have a music class placed on their schedules); rising seventh and eighth grade students will select a foreign language course or two. There are so many options and we encourage you to sample broadly.

Now, it's time to get started! Find the section of this catalog that applies to you and start reading. Good luck, and have fun making your selections.

See you soon!

## Questions?

### **New 4th and 5th Graders**

Contact Margie Hanssens  
Head of the Lower Middle School  
718-522-1660 x238  
Mhanssens@saintannsny.org

### **New 6th, 7th or 8th Graders**

Contact Katie Haddock  
Assistant Head of the Middle School  
718.522.1660 x272  
Khaddock@saintannsny.org

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# GENERAL INFO: ARTS COURSES

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## Art

Middle school students are automatically scheduled into a mixed media fine arts course meeting twice a week. These classes explore visual expression through a wide range of materials and media and dimensional formats. A variety of technical and conceptual approaches are introduced and practiced throughout the middle school years. The artist within is nurtured, challenged, and strengthened. There are elective Art classes available for seventh and eighth graders in addition to the required class.

## Theater

Theater is central to Saint Ann's, and so we ask all of our middle school students to involve themselves in the theater in one way or another. Whether they are acting, building, costuming, dancing, filming, puppeteering, or writing, Saint Ann's students are exploring the craft of the theater.

Fourth, fifth and sixth grade students are scheduled into one theater course automatically; this course will meet once a week, and fifth and sixth graders will be scheduled into a class comprised of both grades. Students may also request additional electives within the theater department. Seventh and eighth grade students are required to choose at least one theater course but may choose more.

## Music: Instrumental Study

“Music is a higher revelation than all wisdom or philosophy.”

—Ludwig Van Beethoven

Fourth grade students will automatically have a music class two times a week, which will include the study of the recorder. Students who began strings in lower school may choose to continue in fourth grade. Fifth grade students choose from a range of orchestral instruments: flute, oboe, clarinet, French horn, trumpet and percussion. Students who began strings in lower school and played during the fourth grade may continue in fifth grade. Most sixth grade students continue studying the instrument they began in fifth grade: Two years or more of study enable a fuller learning experience that prepares each young musician for ensembles, chamber music and/or jazz.

Seventh and eighth grade students may continue with their chosen instrument, and/or they may begin guitar, percussion, saxophone, bassoon or trombone.



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# A NOTE ABOUT HEALTH CLASSES

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Health Education at Saint Ann's is continually evolving and expanding. We seek curriculum that is age appropriate and that will invite students to examine and discuss things that are going on in their day-to-day lives. In addition to the classroom experience, our Health teachers are available to meet with students outside of class to discuss personal health and social issues one-on-one or in groups. Students may come to the Health Education Center on the 5th floor, which is open daily, to make use of a variety of resources available to them.

Fifth graders have a series of health workshops over the course of the year. These small-group classes are led by our health education teachers and look at students' social selves, navigating technology, and growing up.

Sixth, seventh, and eighth graders are automatically scheduled into weekly health classes during which students are encouraged to become active agents in their own well-being and to explore health as a larger community issue. In eighth grade, students have monthly meetings during their health classes with high school mentors who are trained in working with middle schoolers.

*I am made of star stuff*

I am made of star stuff  
powerful and strong  
I am made of star stuff  
wise and knowing  
I am made of star stuff  
bright and blinding

—Anaia J-F

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# 4<sup>TH</sup> GRADE: GENERAL INFO

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The transition to middle school is an exciting time rich with new experiences and challenges. Fourth grade students begin their journey with individualized schedules, a new sense of independence and backpacks that often weigh more than they do! Every fourth grader's schedule will include English, language structures, history, math, science, library, theater, music, computer, studio art and gym. In addition to these classes, students may decide whether they would like to continue taking dance and/or gymnastics, and if they would like to sing in our lower middle school chorus. If a child began a string instrument in third grade, they may choose to continue it in fourth grade. Fourth grade students may also request a few other electives, described below. Please note that these electives will not fit on the schedules of all who request them. Elective choices will be made on a form sent home to all third grade families during the spring. If questions arise, please call Margie Hanssens in the Lower Middle School Office: 718-522-1660, extension 238.

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## 4<sup>TH</sup> GRADE: ELECTIVES

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### Music

#### **4th and 5th Grade Chorus** (1x per week)

Any fourth or fifth grade student may join this choral group. This performing ensemble focuses on strengthening the singing voice and developing the ability to part-sing independently. We perform music in different languages and styles *and* experiment with varying levels of difficulty.

**Strings Program** (2x per week and open only to those who began studying cello, violin or viola in third grade)

### Recreational Arts

#### **Gymnastics** (1x per week)

This class is the next one in the progression from Lower School and emphasizes tumbling and climbing activities. The class will meet in the 10th floor apparatus room.

## Theater

### **Fourth Grade Dance** (1x per week)

Dance classes bring movement and modern music together and culminate in a spring performance.

## Poetry

### **Poetry Seminar** (1x per week)

A workshop—a place where things are made with tools. We experiment; we play with words, ideas and the devices people use to make poems. We make poems.

## Art

### **Found Object Art through Creative Recycling** (1x a week)

Students will learn to make different style dolls, stuffed animals and mixed-media art objects, working with clay, plasticine, papier-mâché, and other materials, exploring a variety of techniques such as weaving, sewing, crochet and printing. This course will take us on a wonderful journey of discovery where we will learn to see objects from a different angle through the artist's prism and give them a new life.

## Math

### **Puzzles and Games** (1x per week. Although not definite, this class is likely to meet on Tuesdays as a double late day—2:35-4:15)

Do you enjoy geometric puzzles? Would you like to learn more about the origins and development of puzzles, and try out lots of fun mathematical games? Do you want to understand the mathematics behind card games such as Cribbage, Spades, Euchre, Canasta, Contract Rummy, and Blackjack, or board games such as Backgammon or Blokus? Whether you are interested in Tangrams (the world's first puzzle craze), more modern recreations such as Hex and polyominos, or understanding popular games of chance from a mathematical perspective, this is the course for you.

### **The Game of Go** (1x per week. Although not definite, this class is likely to meet on Tuesdays as a double late day—2:35-4:15)

Learn to play the world's oldest and most fascinating strategic board game! This class will introduce beginners to the rich and exciting world of Go and will help more experienced players get stronger. Relax and have fun while learning the basic strategic principles of Go, including Attack and Defense, Cutting and Connecting, and Life & Death. We will also explore the history and philosophy of the game, as well as its place in Asian art and culture. All levels are welcome, but enrollment is limited.

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# 5<sup>TH</sup> GRADE: GENERAL INFO

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In fifth grade, students begin incorporating additional electives into their schedules, spreading their reach more deeply into what we have to offer them. They reap the benefit of the independence that was encouraged and cultivated during their first year of middle school as they consider which among the many new options they'd like to see included in their fifth-grade experience.

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## 5<sup>TH</sup> GRADE: MUSIC

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Instrumental study is the focus of the fifth grade music curriculum. Students are asked to choose from a range of orchestral instruments: flute, oboe, clarinet, French horn, trumpet and percussion. Students who began strings in lower school and played during the fourth grade may continue in fifth grade. Classes are taught as group lessons that meet twice weekly. Saint Ann's provides instruments for all fifth graders. After that, students may rent instruments from Saint Ann's for a nominal fee.

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## 5<sup>TH</sup> GRADE: ELECTIVES

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### Music

#### **4th & 5th Grade Chorus** (1x week)

Any fourth or fifth grader may join this choral group. This performing ensemble focuses on strengthening the singing voice and developing the ability to part-sing independently. We perform music in different languages and styles *and* experiment with varying levels of difficulty.

# Computer

We use Macs in the Saint Ann's Computer Center, mostly using software that also runs on Windows and Unix/Linux computers. Classes meet twice a week in classrooms with one computer available for each student.

## **Computer II** (2x per week)

Building on the concepts introduced in Computer I, focus here is on using the computer to creatively express ideas and to help students solve problems relevant to their work at Saint Ann's. While developing their keyboarding skills and using the computer to create web pages, images, animations, graphics, spreadsheets, and databases, students are encouraged to refine their ability to organize their ideas and learn independently. Prerequisite: Computer I or instructor's permission.

## **Middle School Programming I** (2x per week)

This course is an introduction to logic and computer languages. Be prepared to concentrate and experiment: we won't spend any time drawing pictures, but we will write programs (just using words) to find prime factors, for example, and to make objects fly about the screen, perhaps with parachutes and keyboard control. Prerequisite: Computer I or instructor's permission.

# Library

## **Library Elective** (1x per week)

The fun continues with 5th Grade library class! While you will still be able to curl up and listen to a story, you will also uncover the secret search strategies of the librarians. Discuss censorship, write online book reviews, learn about databases and the Dewey Decimal System (ever wonder what those numbers on the book spines mean?) and more.

# Poetry

## **Poetry Seminar** (1x per week)

A workshop—a place where things are made with tools. We experiment; we play with words, ideas and the devices people use to make poems. We make poems.

# Recreational Arts

Fifth grade students are scheduled at least one gym class per week. In addition, they may opt to take:

## Gymnastics (1x per week)

This class is the next one in the progression from Fourth Grade gymnastics. There will be a stronger emphasis on technique, alignment and form. The class will meet in the 10th floor apparatus room.

## Math

**Puzzles and Games** (1x per week. Although not definite, this class is likely to meet on Tuesdays as a double late day—2:35-4:15)

Do you enjoy geometric puzzles? Would you like to learn more about the origins and development of puzzles, and try out lots of fun mathematical games? Do you want to understand the mathematics behind card games such as Cribbage, Spades, Euchre, Canasta, Contract Rummy, and Blackjack, or board games such as Backgammon or Blokus? Whether you are interested in Tangrams (the world's first puzzle craze), more modern recreations such as Hex and polyominos, or understanding popular games of chance from a mathematical perspective, this is the course for you.

**The Game of Go** (1x per week. Although not definite, this class is likely to meet on Tuesdays as a double late day—2:35-4:15)

Learn to play the world's oldest and most fascinating strategic board game! This class will introduce beginners to the rich and exciting world of Go and will help more experienced players get stronger. Relax and have fun while learning the basic strategic principles of Go, including Attack and Defense, Cutting and Connecting, and Life & Death. We will also explore the history and philosophy of the game, as well as its place in Asian art and culture. All levels are welcome, but enrollment is limited.

## Science

**More Science!** (1x per week)

This course is dedicated to fans of science wanting to do More Science! There will be two parts to the class. In one half of the course, we will investigate some chemistry, physics, and biology as we travel from pigments that are acid-base indicators, to light and optics, to eye anatomy and optical illusions. Side trips into discussions of other senses such as taste and hearing may be taken.

In the other half of the course, we will investigate a variety of extinct organisms that rival the strangest of science fiction. Dinosaurs will of course figure prominently in the menagerie, but much earlier and stranger creatures will as well. As we discuss their



crazy names and forms, we will talk about how scientists are actually solving the mysteries of these fantastic non-fictional creatures.

## Theater (1x per week)

All fifth grade students are automatically scheduled into a theater class that meets once per week. This is a “Theater Games” class involving character study, improvisation and basic technique. Class plays will be performed. In addition, students may opt to take:

### **Puppetry** (1x per week)

This course is for students who want to learn how to make many styles of puppets: rod puppets, marionettes, hand puppets, and life-size body puppets for the Puppet Parade. Students who want to put a puppet show together and write their own script are welcome to do so.

### **Costume Production** (1x per week)

Students study costume by learning to sew by machine and by hand. In addition to learning different sewing techniques, students will learn about costume history, pattern making and draping. They will be encouraged to draw costumes and their own personal design ideas. Students will construct costumes for each middle school theater production, as well as work on several personal projects.

### **Dance Fusion** (1x per week)

This course is for 5th and 6th graders, both beginning and intermediate students. No previous dance experience is required, but you have to like to move! This class will combine action-packed movement games, dance techniques and experiments in how to make dances and may feature sections on: Capoeira, Hip-Hop and/or Jazz!

### **African Dance** (1x per week)

An exciting introduction to the joys and complexities of traditional West African music, rhythms, culture, and dances. Come one, come all!

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# 6<sup>TH</sup> GRADE: GENERAL INFO

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Registration for sixth grade is similar to previous years, but with a few more exciting choices! Current fifth grade students will meet with Yuri Velez, Yvelez@saintannsny.org, to review their course selections. You are welcome to drop by the Middle School office with questions before or after your individual meeting. As always, your parents should feel free to call or email our office with their questions and concerns.

Requirements for sixth grade students:

**Art** Sixth grade students are automatically scheduled into a mixed media fine arts course meeting twice a week. This class explores visual expression through a wide range of materials, media, and dimensional formats. A variety of technical and conceptual approaches is introduced and practiced throughout the middle school years. The artist within is nurtured, challenged, and strengthened.

**Health** The theme of Health in sixth grade is “growing up,” and the class explores the physical, emotional, and social aspects of this experience. Topics cover an array of subjects, including puberty, relationships, technology, and nutrition.

**Music** At least one instrumental, choral, or music technology course.

**Rec. Arts** At least two periods per week.

**Theater** Students are scheduled into one theater games class; additional elective choices abound!

Her wings were made of diamonds  
Her house was filled with flowers  
Her eyes sparkled  
Her smile was big  
Her garden was filled with  
Sparkly leaves  
She was a fairy  
That was full of  
Laughter  
— Ruby G.



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# 6<sup>TH</sup> GRADE: ELECTIVES

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## Computer

We are surrounded by science fiction—portable computers, artificial intelligence, 3D printing, electronic games, nanotechnology, big data, etc.—and our courses show students how to be more than just consumers or users: they learn to be independent creators on computers, able to control and help shape the tools of today and tomorrow. Using software that runs similarly on Mac, Windows, Unix/Linux, and tablet computers, our courses teach a range of topics including programming, graphics, circuitry, web, spreadsheet analysis, logic, and other skills that are useful for doing everything from analysis to artwork.

### **Computer II** (2x per week)

Building on Computer I, students creatively express ideas and solve problems relevant to their work at Saint Ann's. We will create web pages, images, animations, graphics, spreadsheets, databases, and better keyboard skills. Students will be encouraged to organize their ideas and learn independently. Prerequisite: Computer 1 or instructor's permission.

### **Programming I** (2x per week)

Introduction to logic and computer languages: requires concentration and experimenting. You won't spend much time drawing pictures, but instead will write "code" programs using words and graphical programming building blocks. Typical projects including making objects fly about the screen, perhaps with parachutes and keyboard controls. Prerequisite: none

### **Programming I Intensive** (4x per week)

Explore the science and art of computer programming. Learn important problem-solving strategies including designing, flowcharts, breaking problems into pieces (modules), and starting small before improving. This intensive class meets four periods per week and is for students who want to master fundamental programming concepts which include loops, variables, procedures, input, output, conditionals, and data structures. Assignments allow students to control graphics, sounds, and data while also encouraging them to think creatively, reason systematically, and work collaboratively. Prerequisite: none

### **Programming II** (2x per week)

A continuation of Programming I with more advanced material, including the Java language. Prerequisite: Programming I or instructor's permission.

## **Physical Computing 1** (2x per week)

Learn how to control a computer without a mouse, keyboard, or monitor: (What? Is this possible? ... Yes!) We will use microcontrollers—single-chip computers that fit in your hand—and write interactive programs that tell them to convert movement into digital information. Hook together resistors, capacitors, diodes, transistors, and sensors so that you can, for example, wave your fingers to turn lights or motors on. Prerequisite: Programming I or instructor's permission.

## Mathematics

### **Mathematical Art** (2x per week)

Come make beautiful things with math! See countless examples of gorgeous art, simple art, clever art, and mind-blowing amazing art, all made from mathematical ideas. Drawings, sculptures, computer-aided designs, video, pieces of music, and performances are all fair game - everything from M.C. Escher and symmetric patterns to origami, string art, dancing, and much, much more! At every step we also work on our own mathematical art and incredible creations in a collaborative workshop environment. Please note: we often meet during one lunch period.

### **Problem Solving** (2x per week)

Problem Solving is an interactive and fun class for sixth, seventh, and eighth graders who love solving math problems and is especially suitable for students interested in participating in mathematical contests such as MathCounts and the AMC 8. Students will explore and develop efficient problem solving strategies involving arithmetic, logic, geometry, algebra, and trial and error. Problem Solving is not intended to help students “get ahead” in the math curriculum, but rather to supplement an established or burgeoning love of mathematics. Please note: we often meet during one lunch period.

### **Infinity** (*Lockhart*) (2x per week)

Mathematics abounds with infinities. There are infinitely many numbers, an infinity of different shapes, and each shape consists of infinitely many points. Between any two points on a line there are always more, and the list of prime numbers goes on forever. In this class we will explore the mathematics of infinity: transfinite numbers and their arithmetic, induction and recursion, the continuum and its mysteries, infinite sequences and convergent sums, the method of exhaustion, and the measurement of curves and surfaces. If you are curious and love to think and discuss ideas, then this is the class for you!

## Recreational Arts

Every Middle School student should have at least two Recreational Arts classes each week: one traditional gym, and either a second one or another offering by the department. Students may select additional courses as part of their recreational arts requirement.

## **Gymnastics** (1x per week)

In this 5th/6th grade gymnastics class there is a stronger emphasis on performing gymnastics skills with better technique, alignment, and form. The class meets in the 10th floor apparatus room.

## **Karate I** (1x per week)

This course offers a serious, non-intimidating approach to traditional martial arts. Students begin with basic punches, kicks, and blocks, and then progress to forms and other basics on their way to sparring. The primary emphasis is on karate as a sport and martial art, although confrontation training and self-defense applications are also covered. A gi (karate uniform) is both required and provided.

## **Middle School Exercise** (1x per week)

This course provides an introduction to various forms of exercise and conditioning which may include cardiovascular and weight training, fitness walks, yoga, climbing, group games, and sport skills.

# Science

## **Design and Construction** (2x per week)

Can you build a battery using a piece of fruit, a penny, and a nickel? Can you design a glider or hot air balloon from objects found around your house? Can you use heat, sunlight, or wind to power a machine? We will examine questions like these (not this) in this class and learn chemistry and physics along the way. Students will work in teams and learn to harness energy in its various forms to accomplish their goals. The focus of this course will be to build, invent, explore, and experiment, but students will learn electrochemistry, optics, mechanics, and magnetism to understand the projects we embark on and their various solutions.

## **Marine Science** (2x per week)

This class will continue the exploration of oceans and marine life begun in fifth grade. Through labs, model-building and occasional dissections, students will become experts on seafloor geology and mapping, physical processes such as tides, and a wide range of sea creatures. We will build upon what the students already know about marine invertebrates, and then study fish, birds and marine mammals in detail. Towards the end of the year, we'll tie everything together through an investigation of various marine ecosystems, such as coral reefs and kelp forests. Come get wet!



# Theater

Sixth grade students are automatically scheduled into a weekly “Theater Games” course that involves character study, improvisation, and basic technique. Class plays are performed. Students are encouraged to choose additional courses according to their interests.

## **African Dance** (1 x per week)

This course offers an exciting introduction to the joys and complexities of traditional West African music, rhythms, culture, and dances. Come one, come all!

## **Breaking the Code: Media and Filmmaking** (1x per week)

This workshop is a general purpose media and technology analysis class. We deal primarily with studying and discussing new forms of media and technological advancements from film, advertisements, narrative structure, television, computers, robotics, communication, and the ever-evolving internet. The purpose of Breaking the Code is to spark discussion about how media and new technology alter what it means to be alive, affect our emotions, change the way we live, interact subliminally with our psychological state, and shape the future of humanity. At the end of the year, each student crafts a final project of his or her choosing, exploring one aspect of new media or technology that we have covered in our class.

## **Costume Production** (1x per week)

Students study costume by learning to sew by machine and by hand. In addition to learning different sewing techniques, students learn about costume history, pattern-making, and draping. They are encouraged to draw costumes and personal design ideas. Students construct costumes for each middle school theater production, as well as work on several personal projects.

## **Dance Fusion** (1x per week)

This course is for 5th and 6th graders, both beginning and intermediate students. No previous dance experience is required, but you have to like to move! This class will combine action-packed movement games, dance techniques and experiments in how to make dances and may feature sections on: Capoeira, Hip-Hop and/or Jazz!

## **Puppetry** (1x per week)

This class is for students who want to learn how to build many different styles of puppets: rod puppets, marionettes, hand puppets, and life-size body puppets for the annual Puppet Parade. Students who want to put a puppet show together are welcome to do so.

## **Sixth Sense Theater** (1x per week)

This course includes basic acting techniques, character work, and improvisation. Scripts of various kinds are explored, and “workshop” play performances develop from this course.

## **Technical Theater** (1 double period per week)

An introduction to stage carpentry and other theatrical craftsmanship, Technical Theater is both a practical and a theoretical course. Carpentry, electrics, audio, and effects lectures act as groundwork for hands-on experience with power tools, lighting equipment, and sound gear. Students work side-by-side with their teachers, developing basic stage construction skills, building flats and platforms, creating props, and painting, all the while adhering to stage etiquette in this productive environment. We encourage and welcome students who wish to extend themselves further to apply for a position on a production running crew. Please note that being a member of a running crew requires time outside of class, and may require students to miss other classes during production. Also, please be aware that due to size limitations and safety considerations, enrollment priority will be given to seventh and eighth graders.

## Specialty Courses

### **Poetry** (1x per week)

A workshop - a place where things are made with tools. We experiment; we play with words, ideas, and the devices people use to make poems. We make poems.

### **Introduction to the Religions of the World**

This course will focus on the historical development and current practices and beliefs of the world's five most populous religions - Hinduism, Buddhism, Judaism, Christianity, and Islam - while also looking at some other forms religion takes (Sikhism, Jainism, Zoroastrianism, Mormonism, Spiritualism, etc.). Our object will be less to determine what religion is than what all of its various forms look like in the lives of their believers. Our world is shaped in powerful ways by the negative forces of religious wars and prejudices and the positive forces of religious striving and benevolence. This overview will offer a way of understanding the wellsprings of those forces.

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# 6<sup>TH</sup> GRADE: MUSIC

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“Music is a higher revelation than all wisdom or philosophy.”  
–Beethoven

## Overview

Many sixth grade students continue studying the instrument they began in fifth grade. Two years of study enables a fuller learning experience that prepares each young musician for future participation in chamber music groups, classical ensembles or jazz ensembles. Sixth grade students may also begin percussion, and/or sign up for Music Lab and Middle School Singers. String instrumentalists participate in Camerata, a string ensemble.

## Particulars

Students are placed in small classes.

Sixth grade students may rent instruments through the school for a yearly fee of \$175. No child is prevented from renting an instrument due to financial need. Parents may call Bianca Roberson, Saint Ann’s Director of Finance, to discuss financial arrangements.

Using the elective sheet, students indicate whether they will continue studying their current instrument, and/or select other music electives. Students’ ongoing progress is evaluated through checklist and anecdotal reports, and each spring we assess instrumental students to ensure appropriate placement for the following year.

## Instrumental Study

Students in the instrumental study program must either provide their own instruments or rent them from the school.

### Beginning I: Percussion (2x week)

Sixth grade students may choose percussion for beginning group lessons. Students are expected to practice at least fifteen minutes a day.

### Continuing II: Clarinet, Flute, French Horn, Oboe, Percussion, Trumpet (2x week)

These courses are a continuation of first year instrumental classes. In the second year of study, students are expected to practice at least twenty minutes a day. Wind students who anticipate wearing braces can discuss with their teacher how they may affect their technique when the time comes.

## Performing Ensembles

Large ensembles are available for sixth graders based on student needs and interests. Speak with your current instrumental teacher if you want to know more about any group. Please note that ensemble classes are of mixed instrumentation, and the focus is on developing musicianship and ensemble skills rather than the technique particular to each instrument. The Music Department is committed to helping students thrive in our ensembles. Students enrolled in any ensemble are required to practice regularly outside of class. The Music Department provides additional support to individual students by offering a Music Resource Room where students can practice during the school day, and we offer a wide-ranging list of private lesson options for those students who wish to support the ensemble experience by studying privately.

### **Middle School Singers** (2x week)

Any sixth, seventh, or eighth grader may join this choral group. This performing ensemble focuses on strengthening the singing voice and developing the ability to part-sing independently. We perform music in different languages, styles, and levels of difficulty. Please note that one of the class meetings may take place during a lunch period.

### **Camerata** (2x week, once in sectional and one “tutti”)

This class is open to any student who currently studies a string instrument privately, or who has participated in the Saint Ann’s strings instruction program. This group plays a broad range of musical styles to develop ensemble and listening skills. Students may provide their own instruments or rent them through the school. Please note that because this class is of mixed instrumentation, and the focus is on developing musicianship and ensemble skills rather than technique particular to each instrument, students are encouraged to supplement class instruction with private lessons.

## Music Technology

### **Music Lab 1** (2x week)

An exploration of basic composition, production, and keyboard musicianship through the use of electronic musical instruments, computers, and a variety of compositional, production, and instructional software. Students develop increased fluency in note-reading, ear-training, listening, keyboarding, and music vocabulary.

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# 7<sup>TH</sup> GRADE: GENERAL INFO

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Registration for seventh grade is similar to previous years—there are just many more choices including language selection and new music options! Current sixth grade students will meet with Katie Haddock, [Khaddock@saintannsny.org](mailto:Khaddock@saintannsny.org), to review their course selections. You are welcome to drop by the Middle School office with questions before or after your individual meeting. As always, your parents should feel free to call or email our office with their questions and concerns.

Requirements for seventh and eighth grade students:

- |                  |   |
|------------------|---|
| <b>Art</b>       | Students are automatically scheduled into an art class.   |
| <b>Health</b>    | Seventh grade students are scheduled into a health class meeting once each week. Seventh grade health addresses many of the influences seventh grade students must navigate. Topics such as social pressure, relationships, substance use, and food are addressed in this context. The seventh grade curriculum also covers stress and larger mental health concerns, and looks at sexual orientation, gender identities, and gender roles. |
| <b>Language</b>  | Students must take at least one foreign language course.  |
| <b>Music</b>     | Students must take at least one music course.   |
| <b>Rec. Arts</b> | Middle School students take at least two periods each week.   |
| <b>Theater</b>   | All students must choose at least one course. In seventh grade, students are not automatically placed in a theater class. Instead, students have a wide variety from which to select. Wide enough, in fact, that it is possible for a student to satisfy our theater requirement without necessarily finding an “acting” class on their schedule.   |



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# 7<sup>TH</sup> GRADE: LANGUAGES

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## A Brief History

The study of language is first introduced at Saint Ann's in the Lower School as Language Arts. In fourth grade the Language Structures program takes formal charge of language studies in a three-year sequence, beginning with the structures and history of English and culminating in the sixth grade in a comprehensive investigation of linguistics and grammar, including the grammars of English and Latin.

## What to Expect

The formal study of a foreign language begins in seventh grade. Students may choose from a variety of classical and modern languages, all of which continue through High School. The following choices are available to seventh graders: Ancient Greek, Chinese, French, Latin, and Spanish. Seventh grade students are encouraged to try two languages if they are so inclined, and if they do, we recommend combining a classical language with a spoken one. Please note that except in rare cases, seventh graders may not take more than two languages.

Until high school, students may not select both French and Spanish, as the many similarities between the two languages can lead to confusion. We want students to solidly establish the fundamentals of one language before beginning the other. (The exception to this rule is the rare case in which a student has studied either language formally and successfully for at least two years, in which instance he or she may consult with the Romance Languages Department chair about the best combination of language classes).

We encourage you to think carefully about your choices, and to be prepared to stick with your language selection(s) through eighth grade.

## Extra Help

French and Spanish language students may make use of our Language Room when their teachers feel this extra support is necessary. This instruction is offered free of charge by department faculty (or the Middle School learning specialist, when appropriate), is scheduled during the school day, and lasts only as long as a teacher feels it is necessary.

All language classes meet four times per week.

## **Ancient Greek I**

The aim of this course is to introduce students to the basic forms and syntax of classical Greek. Memorization of forms and vocabulary are stressed in order to facilitate the reading of classical Greek texts as quickly as possible, such as selections of readings from the New Testament, from Xenophon's *Anabasis*, and from Plato. *Please note that Ancient Greek requires the permission of both the division head and the Classics Department Chair.*

## **Chinese I**

The aim of this course is to introduce students to Mandarin Chinese, while increasing awareness and understanding of Chinese-speaking cultures through songs, poems, and calligraphy. We emphasize Pinyin, a spelling system that helps students learn how to pronounce words. We also focus on the four tones, while regularly introducing essential sentence structures, useful expressions, and vocabulary. The practice of the four tones, based on students' mastery of Pinyin, ensures their pronunciation of words and sentences with an accurate accent. Students learn close to 350 Chinese characters during the year. Topics include Chinese names, friends, schools, nationalities, families, occupations and workplaces, numbers and dates, birthdays, countries and languages, and modes of transport. There is a CD included with the textbook so students can listen to lessons at home.

## **French Beginner I**

This course introduces students to the fundamentals of French. Immersed in the language from the first day, students learn basic conversational vocabulary (greetings, introductions, weather, and time) as well as an assortment of useful vocabulary for talking about family, friends, school, food, clothes, travel, and cultural outings. Students study the essentials of French grammar: nouns, articles, pronouns, verb tenses, and sentence structure. All four language skills (listening, speaking, reading, and writing) are emphasized through a variety of class activities. In addition to daily conversation and daily oral and written practice exercises, students write and present dialogues and sketches, sing songs, read poems and short tales, and watch a short French film or two. By year's end, students are able to carry on an elementary conversation in French and read and write simple sentences.

## **Latin Beginner I**

Latin originated in the Italian peninsula some three thousand years ago and developed to become at one point the most important language in Europe and the Mediterranean basin. Its profound influence is still felt today not only in its daughter languages but also in English. In this class students learn the basics of Latin—they discover its parts of speech and grow familiar with the ways Latin represents simple thoughts. Students learn to read Latin sentences and begin to acquire the skills to read real Latin confidently. In doing so students begin to appreciate a world utterly foreign but nevertheless connected deeply to the cultures of Europe, North Africa, and the Middle East. Moreover, Latin Beginner I students set themselves up to read diverse Latin authors in the original language throughout their high school years at Saint Ann's.

## Spanish Beginner I

This course introduces students to the fundamentals of Spanish. Immersed in the language from the first day, students learn basic conversational vocabulary (greetings, introductions, weather, and time) as well as an assortment of useful vocabulary for talking about family, friends, school, food, clothes, travel, and cultural outings. Students study the essentials of Spanish grammar: nouns, articles, pronouns, verb tenses, and sentence structure. All four language skills (listening, speaking, reading, and writing) are emphasized through a variety of class activities. In addition to daily conversation and daily oral and written practice exercises, students write and present dialogues and sketches, sing songs, read poems and short tales, and watch a short Spanish film or two. By year's end, students are able to carry on an elementary conversation in Spanish and read and write simple sentences.

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# 7<sup>TH</sup> GRADE: MUSIC

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## Overview

Seventh grade students may continue with the instrument they chose in fifth or sixth grade, and/or they may begin bassoon, guitar, saxophone, or trombone. Students may also choose a non-instrumental course. Participation in a music class is required.

## Particulars

Students are placed in small classes.

Students may rent instruments from the school for a yearly fee of \$175. No child is prevented from renting an instrument due to financial need. Parents may call Bianca Roberson, Saint Ann's Director of Finance, to discuss financial arrangements.

Each student should carefully choose a first, second, and third choice of music class. The department will make every effort to see that each student receives his or her first choice, given the number of sections available in each instrument category.

Students' ongoing progress in their classes is evaluated through checklist and anecdotal reports, and each spring we assess instrumental students to ensure appropriate placement for the following year.

The Music Department appropriately places students wishing to begin ensemble study. While the specific number and composition of ensembles will inevitably change from year to year, for the upcoming year students may choose Brass Techniques, Camerata, Jazz Techniques, or Woodwind/Percussion Techniques. Auditions are required for any students beginning in any ensemble.

Students enrolled in any ensemble are required to practice regularly outside of class. The Music Department provides additional support to individual students by offering a Music Resource Room where students can practice during the school day, and we offer a wide-ranging list of private lesson options for those students who wish to support the ensemble experience by studying privately.

# Music Technology

## **Music Lab I** (2x week)

An exploration of basic composition, production, and keyboard musicianship through the use of electronic musical instruments, computers, and a variety of compositional, production, and instructional software. Students develop increased fluency in note-reading, ear-training, listening, keyboarding, and music vocabulary.

## **Music Lab II** (2x per week)

A course for students who have already taken Music Lab I, Music Lab II continues the development of skills and techniques learned in the first year of study. However, importantly, this class focuses on the developing of keyboard skills above other musical endeavors in the music lab. The overall focus of this class becomes the development of musical skills that are required to move forward as a music technologist. Pianists should consult the instructor about moving into the Advanced Music Lab class.

# Music & Culture

## **Storytelling through Music and Song** (2x week)

Throughout history, how have different musicians expressed their ideas and told stories through their music? How do musicians from around the world put words to music? How are musicians telling stories today? Let's travel back to the Medieval French troubadours and Renaissance madrigals, 19th century opera and ballet. Let's look at musical theater, folk music from around the world, songs of political protest, African American spirituals, all the way up through the rap and pop music being recorded today. We'll listen to a wide range of music, and also utilize video and film, while having the opportunity to welcome guest speakers/performers. Ultimately we'll spend some time creating our own music or lyrics, making new stories come to life.

## **World Music** (2x week)

In World Music we travel back in time, before the internet connected us globally, allowing for fascinatingly diverse musical cultures to bloom. We explore music from various African cultures, the music of the Indian subcontinent, Chinese and Japanese classical music, music of Native Americans, from South and Central America, and from island cultures including Australia and the South Pacific. We embrace the vast resources of the internet to bring these distant musical cultures closer.

## Instrumental Study (Beginning I, Continuing II, III)

Students in the instrumental study program must either provide their own instruments or rent them through the school.

### **Beginning I: Bassoon, Saxophone, Trombone, Guitar**

Students may choose one of these four instruments for beginning group lessons. Students who anticipate wearing braces should discuss with their teacher how they will affect their technique. Trumpet/Horn students please note: in general it is easy for you to make the transition to trombone and all others are welcome!

### **Continuing II, III: Advanced Guitar, Percussion II**

These courses are a continuation of the first year classes on these instruments. In their second year of study, all students are expected to practice their instrument at least twenty minutes a day.

## Performing Ensembles

The Music Department offers the following ensembles based on both student need and interest. If you are interested in joining an ensemble, we recommend you select two from the following choices. Speak with your current instrument teacher if you want to know more about any group. Please note that ensemble classes are of mixed instrumentation, and the focus is on developing musicianship and ensemble skills rather than the technique particular to each instrument. The Music Department is committed to helping students thrive in our ensembles. Students enrolled in any ensemble are required to practice regularly outside of class. The Music Department provides additional support to individual students by offering a Music Resource Room where students can practice during the school day, and we offer a wide-ranging list of private lesson options for those students who wish to support the ensemble experience by studying privately.

All performing ensembles are subject to change from year to year depending on the number and musical level of all participating students. Auditions are required for any student interested in joining a large ensemble for the first time.

### **Middle School Singers (2x week)**

Sixth, seventh, and eighth grade students may join this choral group. Our performing ensemble focuses on strengthening the singing voice and developing the ability to part-sing independently. We perform music in different languages, styles, and levels of difficulty. *Please note that one of the class meetings may take place during a lunch period.*

### **Brass Techniques (2x week)**

Horn and trumpet students beginning their third or fourth year of brass study are combined into one ensemble. Playing in two, three, and four-part harmony, students explore ensemble playing while at the same time building solid fundamentals of technique and musicianship. Private lessons are encouraged for students in this class.

### **Camerata (2x week)**

This class is open to any student who currently studies a string instrument privately, or who has participated in the Saint Ann's strings instruction program. This group plays a broad range of musical styles to develop ensemble and listening skills. Students may provide their own instruments or rent them through the school. Please note that because this class is of mixed instrumentation, and the focus is on developing musicianship and ensemble skills rather than technique particular to each instrument, students are encouraged to supplement class instruction with private lessons.

### **Woodwind/Percussion Techniques (2x week)**

In this introduction to ensemble playing, third-year students of flute, oboe, clarinet, and percussion meet once a week with the teacher of their specific instrument to work on tone, technique, rhythm, and intonation. The other period is a tutti rehearsal where all of these instruments play together in three, four, and maybe even five part harmonies! Join to explore ensemble playing, while at the same time building a solid technique. Private lessons are encouraged for this class.

### **Jazz Techniques**

This class is for all instrumentalists, and focuses on jazz improvisation and ensemble playing. Instruction in basic scales and chords provides a vocabulary for improvisation. Students are introduced to the jazz repertoire. All instrumentalists and vocalists should be able to demonstrate a grasp of major and minor scales and chords as well as good reading skills. Except for piano, electric bass, and drums, students must provide their own instruments or rent them from the school. Audition required, and once enrolled private lessons are encouraged for students in this class.

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# 7<sup>TH</sup> GRADE: ELECTIVES

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## Art

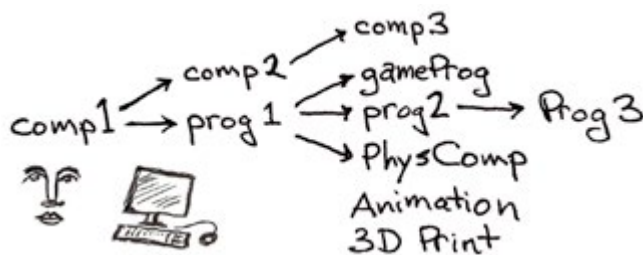
Students are automatically scheduled into a mixed media fine arts course that meets twice a week. This course explores visual expression through a wide range of materials, media, and dimensional formats. A variety of technical and conceptual approaches are introduced and practiced throughout the middle school years. The artist within is nurtured, challenged, and strengthened.

### Drawing Techniques (1x per week)

This course is designed for Middle School students who have a special interest in developing their drawing skills. We learn to create three-dimensional objects in a two-dimensional space through the use of highly technical approaches like perspective and value. We “draw from the inside out” by breaking complicated objects down into more manageable shapes, and apply our understanding of these techniques to advanced exercises ranging from architectural drawing to observational figure drawing and portraiture, and everything in between. Throughout the year we become familiar with a variety of drawing methods and media, and students have an opportunity to develop and share their own individual drawing styles in a fun and collaborative environment. With just a pencil and a piece of paper, anything is possible!

## Computer

We are surrounded by science fiction—portable computers, artificial intelligence, 3D printing,



electronic games, nanotechnology, big data, etc...—and our courses show students how to be more than just consumers or users: they learn to be independent creators on computers, able to control and help shape the tools of today and tomorrow. Using software that runs similarly on Mac, Windows, Unix/Linux, and tablet computers, our courses teach a range of topics including programming, graphics, circuitry, web, spreadsheet analysis, logic, and other skills that are useful for doing everything from analysis to artwork. Classes are full year and meet twice a week (unless otherwise noted) using desktop and tablet computers.



### **Computer III** (2x per week)

A continuation of Computer II with more advanced material. Students in the past have built colorful video games, language translators (English to Spanish, for example), interactive maps, and digital movies. Prerequisite: Computer II, any programming class, or instructor's permission.

### **Computer Animation** (2x per week)

Let's make a sequence of images that have the illusion of life—tell a compelling story, grab attention and emotion, perhaps defy the laws of physics, or create abstract motion. Furthermore, let's study principles of animation, so our stories are easy to follow and the characters don't seem "off." We will learn the basics—planning, walk-cycles, timing, lighting, 3D modeling, and stop motion—using the computer, storyboards, drawings, cutouts, and puppets. Students also view and discuss the work of other animators. Prerequisite: Computer I or Programming I, or instructor's permission.

### **3D Printing** (2x per week)

3D printers are personal fabrication tools that let us become producers, inventors, and artists in our evolving modern world of technology. Students design, invent, test, and modify their designs, like good engineers, and turn their ideas into real objects using various 3D modeling techniques and tools. Prerequisite: none.

### **Programming I** (2x per week)

Introduction to logic and computer languages: requires concentration and experimenting. You won't spend much time drawing pictures, but instead will write "code" programs using words and graphical programming blocks. Typical projects including making objects fly about the screen, perhaps with parachutes and keyboard control. Prerequisite: none.

### **Programming I Intensive** (4x per week)

Explore the science and art of computer programming. Learn important problem-solving strategies including designing, flowcharts, breaking problems into pieces (modules), and starting small before improving. This intensive class meets four periods per week and is for students who want to master fundamental programming concepts which include loops, variables, procedures, input, output, conditionals, and data structures. Assignments allow students to control graphics, sounds, and data while also encouraging them to think creatively, reason systematically, and work collaboratively. Prerequisite: none.

### **Programming II** (2x per week)

A continuation of Programming I with more advanced material, including the Java language. Prerequisite: Programming I or instructor's permission.

### **Programming II Intensive** (4x per week)

This course is a continuation of Programming I with more advanced material, including the Java language, meeting four times per week to cover more ground. Prerequisite: Programming I or instructor's permission.

### **Programming III** (2x per week)

This is an advanced programming course that focuses on making games and web pages. Prerequisite: Programming II or instructor's permission.

### **Game Programming** (2x per week)

Designing computer games is tricky: you have to arrange the controls (user interface), and also think about programming (coding), story, culture, modeling, and implementation. We will have to learn the logic and beauty of code to build usable computer games that might even be fun and good-looking. We will talk about human/computer interaction, emotional themes, graphic design, sound effects, game aesthetics, role-playing, puzzles, interactive fiction, and 3D modeling. Past courses have used Blender, Unity3D, Livecode, and even Scratch sometimes. Prerequisite: Programming I or instructor's permission.

### **Physical Computing I** (2x per week)

Learn how to control a computer without a mouse, keyboard, or monitor: (What? Is this possible? ... Yes!) We will use microcontrollers—single-chip computers that fit in your hand—and write interactive programs that tell them to convert movement into digital information. Hook together resistors, capacitors, diodes, transistors, and sensors so that you can, for example, wave your fingers to turn lights or motors on. Prerequisite: Programming I or instructor's permission.

### **Physical Computing II** (2x per week)

Students connect microcontrollers (hand-held computer circuit boards) and transducers to make devices respond to a wide range of human physical actions. We build projects from schematic diagrams, make programs based on class examples, and make devices talk to one another. Topics may include: networking protocols and topologies; mobile objects and wireless networks; digital logic and numbering systems. Students create a digital portfolio to document their work and research. Prerequisite: Physical Computing I or instructor's permission.

## Mathematics

### **Mathematical Art** (2x per week)

Come make beautiful things with math! See countless examples of gorgeous art, simple art, clever art, and mind-blowing amazing art, all made from mathematical ideas. Drawings, sculptures, computer-aided designs, video, pieces of music, and performances are all fair game—everything from M.C. Escher and symmetric patterns to origami, string art, dancing, and much, much more! At every step we also work on our own mathematical art and incredible creations in a collaborative workshop environment. NB: We often meet during one lunch period.

### **Problem Solving** (2x per week)

Problem Solving is an interactive and fun class for sixth, seventh, and eighth graders who love solving math problems, and is especially suitable for students interested in participating

in mathematical contests such as MathCounts and the AMC 8. Students will explore and develop efficient problem solving strategies involving arithmetic, logic, geometry, algebra, and trial and error. Problem Solving is not intended to help students “get ahead” in the math curriculum, but rather to supplement an established or burgeoning love of mathematics. NB: We often meet during one lunch period.

### **Infinity** (*Lockhart*) (2x per week)

Mathematics abounds with infinities. There are infinitely many numbers, an infinity of different shapes, and each shape consists of infinitely many points. Between any two points on a line there are always more, and the list of prime numbers goes on forever. In this class we will explore the mathematics of infinity: transfinite numbers and their arithmetic, induction and recursion, the continuum and its mysteries, infinite sequences and convergent sums, the method of exhaustion, and the measurement of curves and surfaces. If you are curious and love to think and discuss ideas, then this is the class for you!

## Recreational Arts

Every Middle School student will have at least two Recreational Arts classes each week: one traditional gym, and either a second one or another offering by the department. Students may select additional courses as part of their recreational arts requirement.

### **Fencing I** (1x per week)

An introduction to the sport of fencing, including basic technique and conditioning. Also included are execution of simple attacks and defensive actions, with special emphasis on developing proper form.

### **Karate I** (1x per week)

This course offers a serious, non-intimidating approach to traditional martial arts. Students begin with basic punches, kicks, and blocks, and then progress to forms and other basics on their way to sparring. The primary emphasis is on karate as a sport and martial art, although confrontation training and self-defense applications are also covered. A gi (karate uniform) is both required and provided.

### **Karate II** (1x per week)

This course is for students who have completed one year of karate at Saint Ann’s. It focuses on material for the yellow-belt rank and above. A gi (karate uniform) is both required and provided.

### **Middle School Exercise** (1x per week)

This course provides an introduction to various forms of exercise and conditioning which may include strength and cardiovascular training, fitness walks, climbing, yoga, group games, and sport skills.

## Science

### **Food & You** (2x per week)

In this course we investigate the chemical properties of food, the effect of diet on health, the sensory evaluation of food, metabolic disorders, food contamination, food engineering, and the food industry. The curriculum is highly student driven. We tackle topics such as: Is organic food really healthier than non-organic food? What are the pros and cons of GMOs? Is there any validity to the 5 second rule of dropped food? Why do we like sweets? Why don't some kids like eating vegetables? What is gluten and why are so many people going gluten-free? A hands-on, lab-based approach (not approached) to the subject helps students become informed foodies as they learn about the scientific world of food!

### **Marine Science** (2x per week)

This class will continue the exploration of oceans and marine life begun in fifth grade. Through labs, model-building and occasional dissections, students will become experts on seafloor geology and mapping, physical processes such as tides, and a wide range of sea creatures. We will build upon what the students already know about marine invertebrates, and then study fish, birds and marine mammals in detail. Towards the end of the year, we'll tie everything together through an investigation of various marine ecosystems, such as coral reefs and kelp forests. Come get wet!

### **Design and Construction** (2x per week)

Can you build a battery using a piece of fruit, a penny, and a nickel? Can you design a glider or hot air balloon from objects found around your house? Can you use heat, sunlight, or wind to power a machine? We will examine questions like these (not this) in this class and learn chemistry and physics along the way. Students will work in teams and learn to harness energy in its various forms to accomplish their goals. The focus of this course will be to build, invent, explore, and experiment, but students will learn electrochemistry, optics, mechanics, and magnetism to understand the projects we embark on and their various solutions.

### **Sustainable Earth** (2x per week)

How can we live more sustainably in one of the world's largest cities? How can we use technology to reduce our carbon footprints? In this course we will explore, discuss, and design solutions for environmental challenges. We'll look at nature as a blueprint for creating sustainable systems. Projects include testing the quality of our local waterways, designing and building city models to protect from intense weather events, tinkering with wind and solar tech, and examining our waste stream. Along with collecting data and creating models, this hands on course will include field trips to sites around the city.

# Theater

Seventh grade students must choose at least one theater class.

## **Acting Through the Ages** (1 double period per week)

From the beginning of time people were actors and storytellers. There was also quite a bit of combat happening, too. In this course we work our way through a timeline of theatrical styles, playing characters, rehearsing and performing scenes and monologues, and learning some stage combat skills. We work toward physicalizing the energy and emotions contained in each genre. We meet up with the clowns of some ancient Roman comedies, the most complicated villains, dreamers, and fighters of the Shakespearean era, and the nineteenth century's most melodramatic families. If we make it to modern times, we'll investigate screenplays, soap operas and recent Broadway revivals.

## **African Dance** (1 double period per week)

This course offers an exciting introduction to the joys and complexities of traditional West African music, rhythms, culture, and dances. Come one, come all!

## **The Art of Comedy** (1 double period per week)

Comedy improvisation and slapstick have as their roots the popular street theater of sixteenth century Italy known as *Commedia dell'Arte*. In this exciting introduction to comic acting and theater history, students create characters through mask work, develop funny walks, learn to juggle, and try their hand at comedy writing and directing. While students explore this spirited and physical style of theater, they continue to work with the improvisation exercises and theater games of contemporary theater. This course is open to those interested in ensemble work, silliness, and risk-taking. Workshop performances develop from this course.

## **Breaking the Gender Code** (1x per week)

In the bloodstream of media, advertising, and pop culture is a coded conversation about gender that we are all profoundly impacted by. In this class we will explore how cis-gender women and men, transgender, and non-binary people are depicted in film, music, tv and advertising, as well as the counter-cultural influences that have challenged these representations. Some topics of discussion include: gender archetypes in superhero narratives, women and horror movies, genderqueer music icons, toxic/non-toxic masculinity in media, powerful heroines in action films & thrillers, the male gaze, how stories of queer identity were disguised as cis-normative narratives in the golden era of Hollywood, and the selfie-gaze; how social media affects our perceptions of gender and of ourselves. At the end of the year, each student crafts a final project exploring one aspect of new media or technology that we have covered in our class.

## **Catalyst: 7th Grade Documentary Filmmaking** (1 double period per week)

Look, listen & learn to see the world around you through a sharper lens. In this course the class will conceptualize, research, write, shoot and edit one collaborative short documentary that both illuminates its subject matter and challenges its audience. We will examine: the history of documentaries and how they have been made; the relationship between documentaries and the realities they represent; the ethics, aesthetics and politics of representation in nonfiction

films; and documentary films as catalysts for social change on issues such as climate change and social justice. Along with engaging in a journalistic approach to research, production lessons will include shooting verité footage, capturing human behavior through the lens, lighting interviews, and documentary editing techniques.

### **Costume Production** (1x per week)

Students study costume by learning to sew by machine and by hand. In addition to learning different sewing techniques, students learn about costume history, patternmaking, and draping. They are encouraged to draw costumes and personal design ideas. Students construct costumes for each middle school theater production, as well as work on several personal projects.

### **High Velocity Dance** (1x per week)

This is an exciting course, jam-packed with skills, fitness, and combinations. The various dance styles covered may include: swing, jitterbug, modern, jazz, salsa, ballet, tap, hip-hop, and musical theater dance. There are opportunities for students to create their own choreography, perform, and collaborate on a dance video unlike any they have ever seen! No previous dance experience is required. Athletes, gymnasts, actors, and artists will all enjoy this class!

### **Playwriting** (1 double period per week)

This is a workshop course in which students read their work to each other, and then discuss and improvise on the material presented. By the end of the first semester, each student has written a one-act play that is presented as a staged or semi-staged reading at the Middle School Playwriting Festival. In the second semester, students will gather for one period to read great plays and scenes aloud. There will be no homework in the second semester.

### **Puppetry** (1x per week)

This class is for students who want to learn how to build many different styles of puppets: rod puppets, marionettes, hand puppets, and life-size body puppets for the annual Puppet Parade. Students who want to put a puppet show together are welcome to do so.

### **Puppetry Production** (1 double period per week)

This class is for more advanced puppetry students who want to continue exploring and building different styles of puppets while taking their puppet-building skills to a higher level. Students who want to create a puppet show together are welcome to do so. Prerequisite: two years of puppetry.

### **Technical Theater** (1 double period per week)

An introduction to stage carpentry and other theatrical craftsmanship, Technical Theater is both a practical and a theoretical course. Carpentry, electrics, audio, and effects lectures act as groundwork for hands-on experience with power tools, lighting equipment, and sound gear. Students work side-by-side with their teachers, developing basic stage construction skills, building flats and platforms, creating props, and painting, all the while adhering to stage etiquette in this productive environment. We encourage and welcome students who wish to

extend themselves further to apply for a position on a production running crew. Please note that being a member of a running crew requires time outside of class, along with the need to miss other classes during production. Also, please be aware that due to class-size limitations and safety considerations, enrollment priority will be given to seventh and eighth graders.

### **Theater Workshop** (1x per week)

Step into somebody else's shoes. This course includes basic acting techniques, improvisation, theater games, scene and monologue work, and character exploration. Scripts of various kinds are investigated, and "workshop" performances develop from this course. Come explore your silly and serious sides. If you only have one period to devote to theater or you have room for a little extra theater in your schedule, this fun and action-packed course is for you!

## Specialty Courses

### **Middle School Literary Magazine**

The Middle School Literary Magazine is created by a board of students and faculty advisers whose goal is to find and publish excellent middle school writing. The Board (generally about eighteen students) meets once a week to discuss and select poetry and prose. In addition, board members prepare all selections for layout. Students who are interested should be prepared to read all submissions in advance of meetings, and to participate in every discussion about every piece. Please note: Lit Mag will take place from November through May and may be scheduled during a Lunch period.

### **Oratory and Rhetoric** (1x per week at lunch)

Students learn to deliver two-minute speeches, mostly unscripted, on a wide range of themes. Various debate subjects, as well as age-old rhetorical methods taken from classical schools of rhetoric, and still used by our more literate politicians, are explored by the group. Students invent, set, and artfully articulate their own ideas. In the spring, students are invited to test their speaking skills and legislative proposals at the Packer Model Congress. This course is open to anyone with mental stamina and a desire to speak in a formal setting.

### **Poetry** (1x per week)

A workshop—a place where things are made with tools. We experiment; we play with words, ideas, and the devices people use to make poems. We make poems.

### **The Bible as Literature** (1x per week)

This course will provide an introduction to the Bible, in both its Jewish form (the Hebrew Bible) and the later Christian collection (the Old Testament, identical to the Hebrew Bible but in a different order, and the specifically Christian writings of the New Testament). We will read a sampling of the stories, histories, poetry, letters, sermons, and essays that are foundational to these two religions, and are also deeply embedded into our arts and culture. Encounter here Adam and Eve, David and Goliath, the wisdom of Solomon, the apple of your eye, the writing on the wall. Links to literature from around the world will be made as well.

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# 8<sup>TH</sup> GRADE: GENERAL INFO

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Registration for your final year of Middle School is similar to previous years—choices abound! Current seventh grade students will meet with Betty Noel, Bnoel@saintannsny.org, to review their course selections. You are always welcome to drop by the Middle School office with questions before or after your individual meeting. Your parents should feel free to call or email our office with their questions and concerns.

Requirements for eighth grade students:

- Art** Students are automatically scheduled into an art class.
- Health** Eighth grade students are scheduled into a Health class meeting once each week. Eighth grade students are presented with a comprehensive approach to studying sexuality, nutrition, substance use (including alcohol, marijuana, and vaping), identity, communication, technology, and decision-making. The goal is to provide students with concrete and accurate information so that they can make the best personal choices for themselves both now and in the future. Once a month high school mentors join the class to discuss the transition into high school.
- Language** Students must take at least one foreign language course. In addition to continuing with Ancient Greek, Chinese, French, Latin and Spanish, eighth grade students may elect to study Japanese with the permission of the Classics Department Chair and the division head. See page 40 for more information.
- Math** Eighth grade students take Algebra I, a High School level course, for credit. See page 39 for more information.
- Music** Students must take at least one music course.
- Rec. Arts** Middle School students take at least two periods each week.
- Theater** All students must choose at least one course. In eighth grade, students are not automatically placed in a theater class. Instead, students have a wide variety from which to select. Wide enough, in fact, that it is possible for a student to satisfy our theater requirement without necessarily finding an “acting” class on their schedule.



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# 8<sup>TH</sup> GRADE: ALGEBRA

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## Algebra I

All eighth grade students take this high school level math course. Completion of this course results in credit appearing on a student's high school transcript. Should a student fail to demonstrate mastery of the material through a combination of class participation, homework, quizzes, and tests, he or she is obligated to either retake Algebra I elsewhere or repeat the course in ninth grade. Credit is determined by the teacher near the end of the school year, and students and parents will be notified of the possibility of not receiving credit in advance of this determination, giving them ample time to address the issue.

In Algebra I, students learn to generalize the laws of arithmetic and perform the four operations on variable expressions. They develop their ability to model and solve word problems by assigning variables to unknown quantities and determining the precise relationship between constant and variable terms. Students apply the laws of equality in order to solve a wide variety of equations and proportions. Through 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. All of these activities promote both arithmetic and algebraic fluency.

Are we a river  
Rushing, rushing, rushing  
    we  
    topple  
        off  
        waterfalls  
and then we keep going  
over rocks  
    and other  
    things  
        we never stop  
going and going and going and  
    going  
        will we ever freeze?

— Tommy C.

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# 8<sup>TH</sup> GRADE: LANGUAGES

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## What to Expect

As an eighth grade student, you will most likely continue with your current language choice(s). However, it is possible to add or drop a language in your final year of middle school.

Eighth grade students who wish to add a second or third language must discuss this choice with their advisor. Remember, students may not take both French and Spanish, as the many similarities between the two languages can often lead to confusion. It is much better to solidly establish the fundamentals of one language (through two years of study) before beginning the other. In rare cases in which a student has studied either language formally and successfully for at least two years, he or she may consult with the Romance Languages Department chair about taking both languages.

Our Japanese foreign language program closely resembles a college level curriculum, beginning with the introductory course. Japanese I is a highly rigorous and demanding course; adding it to your schedule requires permission from both the Chair of the Classics Department and the division head. Except in rare cases, you may only add Japanese if it will be your first or second language. In other words, students usually do not study three languages if Japanese is one of them.

### *Parents Please Note*

If you agree to let your child withdraw from their language course in eighth grade, please send written permission along with the Language Selection sheet.

## Extra Help

French and Spanish language students may make use of our Language Room when their teachers feel this extra support is necessary. This instruction is offered free of charge by department faculty (or the Middle School learning specialist, when appropriate), is scheduled during the school day, and lasts only as long as a teacher feels it is necessary.

### **High School Intensive Ancient Greek**

This is a fast-paced, intense course that introduces the essential morphology and syntax of Ancient Greek. The systematic acquisition of forms and vocabulary complement the learning of simple and complex syntax. As the name of the course indicates, this is an intense experience, but one that enables students to read Ancient Greek texts in the original by the end of the year. Permission of the instructor and division head required to enroll.

## **Ancient Greek II**

This course continues the work begun in Ancient Greek I. Rapid review of forms and syntax is followed by the study of more advanced syntax and vocabulary. Students will make the transition to longer, more connected texts. The year culminates in selected readings from Ancient prose authors.

## **Chinese II**

Having gained basic skills in listening, speaking, reading, and writing in Chinese I, this course provides a more intensive study of grammar and vocabulary. Students enhance their communication abilities through discussions of clothing, weather, holidays, hobbies, daily routine, school subjects and facilities, and making telephone calls. Authentic photos are included in the textbook to help students visualize the beauty of Chinese culture.

## **High School Chinese I**

The aim of this course is to introduce students to Mandarin Chinese, while increasing awareness and understanding of Chinese-speaking cultures through songs, poems, and calligraphy. We emphasize Pinyin, a spelling system that helps students learn how to pronounce words. We also focus on the four tones, while regularly introducing essential sentence structures, useful expressions, and vocabulary. The practice of the four tones, based on the students' mastery of Pinyin, ensures their pronunciation of words and sentences with an accurate accent. Students learn close to 350 Chinese characters during the year. Topics include Chinese names, friends, schools, nationalities, families, occupations and workplaces, numbers and dates, birthdays, countries and languages, and modes of transport. There is a CD included with the textbook so students can listen to lessons at home. Textbook: *Chinese Made Easy—Book 1*

## **French Beginner II**

Building on the fundamentals of French syntax taught in French Beginner I, students in this course broaden their understanding of grammatical structures and considerably extend their vocabulary base. They develop their speaking, listening, writing, and reading skills through conversational activities, written assignments, and readings of simple texts. Emphasis is placed on mastery of the present and past tenses of regular and irregular verbs, the rules of agreement, the use of the partitive, interrogatives, and all personal pronouns. Classes are taught chiefly in French, and accurate pronunciation is stressed. Activities using multimedia reinforce learning and encourage students to approach the language orally.

## **High School French I**

This course is for students who are learning French for the first time, as well as for those second year students who would benefit from another full year of instruction to solidify their knowledge and usage of the fundamentals. Emphasis is placed on sentence structure and oral expression. Students work to acquire elementary conversational skills and learn vocabulary through texts and review exercises. This class also uses internet-based interactive activities to practice and retain material. Accurate pronunciation is encouraged.

## **Japanese I**

This course serves as an introduction to the Japanese language. Students are asked to master two sets of Japanese phonetic syllables: 46 hiraganas and 45 katakanas, modified and combination forms respectively. Emphasis is placed on the Japanese accent system, basic Chinese characters with Japanese pronunciation, basic sentence structures, and cultural background. Even though it is an introductory course, Japanese I is a highly rigorous and demanding one that follows a college-level curriculum. Please note that students who enroll in Japanese are permitted to take only one additional language.

## **Latin Beginner II**

This course begins with a fast-paced review of the forms and syntax discovered in Latin Beginner I, and then quickly jumps into more complicated topics of syntax. The grammar that real Latin authors use to express complex thoughts are studied in depth -- the subjunctive, participles, subordination, comparatives, deponents, etc. By the spring, students have acquired the knowledge to begin to read excerpts from Latin authors, both Roman and medieval. In doing so, they develop the habits needed to read copious amounts of Latin in high school comfortably and confidently; moreover, they continue to gain an appreciation for life in the ancient Roman world while acquiring an understanding of the profound ways the Latin language and its cultures have influenced not only modern Europe but also the world.

## **High School Latin I**

This course is for students who did not take Latin in seventh grade and who are committed to learning seventh and eighth grade Latin in a single year. It focuses on the basics of Latin forms and syntax, stressing memorization in order to facilitate the reading of Latin literature as quickly as possible. Readings are selected from Cicero, Caesar, Martial and others. The course also covers background material on mythology, history, and Roman life.

## **Spanish Beginner II**

Building on the fundamentals of Spanish syntax taught in Spanish Beginner I, students in this course broaden their understanding of grammatical structures and considerably extend their vocabulary base. They develop their speaking, listening, writing, and reading skills through conversational activities, written assignments, and readings of simple texts. Emphasis is placed on mastery of the present and past tenses of regular and irregular verbs, the rules of agreement, the interrogatives, and all personal pronouns. Classes are taught chiefly in Spanish and accurate pronunciation is stressed. Activities using multimedia reinforce learning and encourage students to approach the language orally.

## **High School Spanish I**

This course is for students who are learning Spanish for the first time, as well as for those second year students who would benefit from another full year of instruction to solidify their knowledge and usage of the fundamentals. Emphasis is placed on sentence structure and oral expression. Students work to acquire elementary conversational skills and learn vocabulary through texts and review exercises. This class also uses internet-based interactive activities to practice and retain material. Accurate pronunciation is encouraged.

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# 8<sup>TH</sup> GRADE: MUSIC

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Students may rent instruments from the school for a yearly fee of \$175. No child is prevented from renting an instrument due to financial need. Parents may call Bianca Roberson, Saint Ann's Director of Finance, to discuss financial arrangements.

Each student should carefully choose a first, second, and third choice of music class. The department will make every effort to see that each student receives his or her first choice, given the number of sections available in each instrument category.

Students enrolled in any ensemble are required to practice regularly outside of class. The Music Department provides additional support to individual students by offering a Music Resource Room where students can practice during the school day, and we offer a wide-ranging list of private lesson options for those students who wish to support the ensemble experience by studying privately.

Students' ongoing progress is evaluated through checklist and anecdotal reports, and each spring we assess instrumental students to ensure appropriate placement for the following year.

The Music Department faculty appropriately places those students wishing to begin ensemble study. While the specific number and composition of ensembles will inevitably change from year to year, for the upcoming year students may choose Brass Techniques, Chamber Orchestra, Jazz Techniques, or Wind Ensemble. Auditions are required for any students beginning in any ensemble.

## Music Technology

### **Music Lab I** (2x week)

An exploration of basic composition, production, and keyboard musicianship through the use of electronic musical instruments, computers, and a variety of compositional, production, and instructional software. Students develop increased fluency in note-reading, ear-training, listening, keyboarding, and music vocabulary.

### **Music Lab II** (2x per week)

A course for students who have already taken Music Lab I, Music Lab II continues the development of skills and techniques learned in the first year of study. However, importantly, this class focuses on the developing of keyboard skills above other musical endeavors in the music lab. The overall focus of this class becomes the development of musical skills that are required to move forward as a music technologist. Pianists should consult the instructor about moving into the Advanced Music Lab class.

### **Advanced Music Lab** (2x per week)

A course for the advanced music lab student who has already taken Music Lab I and/or Music Lab II. It focuses on composition and recording techniques using MIDI, digital audio, sampling, video, and other forms of multimedia such as scoring music for film. We listen to and deconstruct music from various musical worlds in an effort to better understand the workings of music composition. Prerequisite: instructor's permission.

## Music & Culture

### **Storytelling through Music and Song** (2x week)

Throughout history, how have different musicians expressed their ideas and told stories through their music? How do musicians from around world put words to music? How are musicians telling stories today? Let's travel back to the Medieval French troubadours and Renaissance madrigals, 19th century opera and ballet. Let's look at musical theater, folk music from around the world, songs of political protest, African American spirituals, all the way up through the rap and pop music being recorded today. We'll listen to a wide range of music, but also utilize video and film, and have the opportunity to welcome guest speakers/performers. Ultimately we'll spend some time creating our own music or lyrics, making new stories come to life.

### **World Music** (2x week)

In World Music we travel back in time, before the internet connected us globally, allowing for fascinatingly diverse musical cultures to bloom. We explore music from various African cultures, the music of the Indian subcontinent, Chinese and Japanese classical music, music of Native Americans, from South and Central America, and from island cultures including Australia and the South Pacific. We embrace the vast resources of the internet to bring these distant musical cultures closer.

## Instrumental Study (Beginning I, Continuing II)

Students in the instrumental study program must either provide their own instruments or rent them through the school.

### **Bassoon I, II; Saxophone I, II; Trombone I; Guitar (Beginning & Advanced), Percussion II**

These courses are a beginning or continuation study of these instruments. All students are expected to practice their instrument for at least twenty minutes a day.

## Performing Ensembles

The Music Department offers the following ensembles based on both student need and interest. If you are interested in joining an ensemble, we recommend you select two from the following choices. Speak with your current instrument teacher if you want to know more about any group. Please note that ensemble classes are of mixed instrumentation and the focus is on developing musicianship and ensemble skills, rather than technique particular to each instrument. The Music Department is committed to helping students thrive in our ensembles. Students enrolled in any ensemble are required to practice regularly outside of class. The Music Department provides additional support to individual students by offering a Music Resource Room where students can practice during the school day, and we offer a wide-ranging list of private lesson options for those students who wish to support the ensemble experience by studying privately.

All performing ensembles are subject to change from year to year depending on the number and musical level of all participating students. Auditions are required for any student interested in joining a large ensemble for the first time.

### **Middle School Singers** (2x per week)

Any upper middle schooler may join this choral group. This performing ensemble focuses on strengthening the singing voice, and developing the ability to part-sing independently. We perform music in different languages, styles, and levels of difficulty. Please note that one of the class meetings may take place during one lunch period.

### **Brass Techniques** (2x per week)

Horn and trumpet students beginning their third or fourth year of brass study or trombone beginning their second year of study are combined into one ensemble. Playing in two, three, and four-part harmony, students explore ensemble playing while at the same time building solid fundamentals of technique and musicianship. Private lessons are encouraged for students in this class.

### **Chamber Orchestra** (3x per week)

A plucked clarinet? A bowed flute? A violin that uses reeds? A cello with leaking pads? Have you buzzed your viola yet? Something is upside down! Chamber Orchestra is an ensemble where woodwind, brass, and string instruments learn how to play together and enjoy the rich sound-world they create. Instrumentalists prepare to play in keys utilizing up to four sharps and flats. Chamber Orchestra draws repertoire from art and music extending from the Renaissance to today. A conducted ensemble, where the individual is cherished and challenged with music suited to each player, this group meets for one double period plus one sectional period each week. Students in Chamber Orchestra are best served by also taking private lessons. An audition is required for any student enrolling in a large ensemble for the first time.

### **Chamber Players** (1x week)

Historically, chamber music has been the pastime of the aristocracy, yet it is as democratic as music making can get! Students are placed in small groups to study chamber music repertoire. Groups are arranged based on enrollment and are coached by members of the Music Department. All orchestral instruments, as well as piano, are eligible. Audition and permission of instructor required, and more so than any other music course, this repertoire poses challenges best met with the aid of private lessons.

### **Jazz Techniques** (2x week)

This class is for all instrumentalists, and focuses on jazz improvisation and ensemble playing. Instruction in basic scales and chords provides a vocabulary for improvisation. Students are introduced to the jazz repertoire. All instrumentalists and vocalists should be able to demonstrate a grasp of major and minor scales and chords as well as good reading skills. Except for piano, electric bass, and drums, students must provide their own instruments or rent them from the school. Audition required, and once enrolled, private lessons are encouraged for students in this class.

### **Wind Ensemble** (2x week)

The Wind Ensemble combines woodwind and brass instruments. We develop musical and technical skills by studying compositions from a wide variety of styles, composers, and time periods. Private lessons are encouraged for students in this ensemble. Prerequisite: permission of the instructor

#### *Book*

Closed,  
It hides the  
jostling, giggling  
wonderful story  
inside

Opened,  
It reveals  
a mind-bogglingly  
crazy story

— Noam B.



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# 8<sup>TH</sup> GRADE: ELECTIVES

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## Art

All students are automatically scheduled into a mixed media fine arts course meeting twice a week. This course explores visual expression through a wide range of materials, media, and dimensional formats. A variety of technical and conceptual approaches are introduced and practiced throughout the middle school years. The artist within is nurtured, challenged, and strengthened.

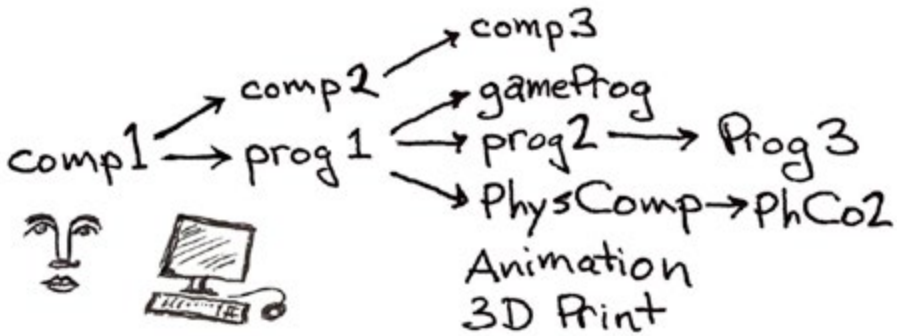
### **Digital Photography** (2x per week)

An exploration of the use of digital technology within a photographic context. The intentions of the course are twofold: to explore the use of photography for image making and narrative purposes; and to explore the use of digital technology with the digital camera. This course has a limited enrollment.

### **Drawing Techniques** (1x per week)

This course is designed for Middle School students who have a special interest in developing their drawing skills. We learn to create three-dimensional objects in a two-dimensional space through the use of highly technical approaches like perspective and value. We “draw from the inside out” by breaking complicated objects down into more manageable shapes, and apply our understanding of these techniques to advanced exercises ranging from architectural drawing to observational figure drawing and portraiture, and everything in between. Throughout the year we become familiar with a variety of drawing methods and media, and students have an opportunity to develop and share their own individual drawing styles in a fun and collaborative environment! With just a pencil and a piece of paper, anything is possible!

# Computer



We are surrounded by science fiction—portable computers, artificial intelligence, 3D printing, electronic games, nanotechnology, big data, etc...—and our courses show students how to be more than just consumers or users: they learn to be independent creators on computers, able to control and help shape the tools of today and tomorrow. Using software that runs similarly on Mac, Windows, Unix/Linux, and tablet computers, our courses teach a range of topics including programming, graphics, circuitry, web, spreadsheet analysis, logic, and other skills that are useful for doing everything from analysis to artwork. Classes are full year and meet twice a week (unless otherwise noted) using desktop and tablet computers.

## Computer III (2x per week)

A continuation of Computer II with more advanced material. Students in the past have built colorful video games, language translators (English to Spanish, for example), interactive maps, and digital movies. Prerequisite: Computer II, any programming class, or instructor's permission

## Computer Animation (2x per week)

Let's make a sequence of images have the illusion of life—tell a compelling story, grab attention and emotion, perhaps defy the laws of physics, or create abstract motion. Furthermore, let's study principles of animation, so our stories are easy to follow and the characters don't seem "off." We will learn the basics—planning, walk-cycles, timing, lighting, 3D modeling, and stop motion—using the computer, storyboards, drawings, cutouts, and puppets. Students also view and discuss the work of other animators. Prerequisite: Computer I or Programming I, or instructor's permission

## 3D Printing (2x per week)

3D printers are personal fabrication tools that let us become producers, inventors, and artists in our evolving modern world of technology. Students design, invent, test, and modify their designs, like good engineers, and turn their ideas into real objects using various 3D modeling techniques and tools. Prerequisite: none

### **Programming I** (2x per week)

Introduction to logic and computer languages: requires concentration and experimenting. You won't spend much time drawing pictures, but instead will write "code" programs using words and graphical programming blocks. Typical projects including making objects fly about the screen, perhaps with parachutes and keyboard control. Prerequisite: none

### **Programming II** (2x per week)

A continuation of Programming I with more advanced material, including the Java language. Prerequisite: Programming I or instructor's permission

### **Programming I Intensive** (4x per week)

Explore the science and art of computer programming. Learn important problem-solving strategies including designing, flowcharts, breaking problems into pieces (modules), and starting small before improving. This intensive class meets four periods per week and is for students who want to master fundamental programming concepts which include loops, variables, procedures, input, output, conditionals, and data structures. Assignments allow students to control graphics, sounds, and data while also encouraging them to think creatively, reason systematically, and work collaboratively. Prerequisite: none

### **Programming III** (2x per week)

This is an advanced programming course that focuses on making games and web pages. Prerequisite: Programming II or instructor's permission

### **Programming II Intensive** (4x per week)

This course is a continuation of Programming I with more advanced material, including the Java language, meeting four times per week to cover more ground. Prerequisite: Programming I or instructor's permission

### **Game Programming** (2x per week)

Designing computer games is tricky: you have to arrange the controls (user interface), and also think about programming (coding), story, culture, modeling, and implementation. We will have to learn the logic and beauty of code to build usable computer games that might even be fun and good-looking. We will talk about human/computer interaction, emotional themes, graphic design, sound effects, game aesthetics, role-playing, puzzles, interactive fiction, and 3D modeling. Past courses have used Blender, Unity3D, Livecode, and even Scratch sometimes. Prerequisite: Programming I or instructor's permission

### **Physical Computing I** (2x per week)

Learn how to control a computer without a mouse, keyboard, or monitor: (What? Is this possible? ... Yes!) We will use microcontrollers—single-chip computers that fit in your hand—and write interactive programs that tell them to convert movement into digital information. Hook together resistors, capacitors, diodes, transistors, and sensors so that you can, for example, wave your fingers to turn lights or motors on. Prerequisite: Programming I or instructor's permission

## **Physical Computing II** (2x per week)

Students connect microcontrollers (hand-held computer circuit boards) and transducers to make devices respond to a wide range of human physical actions. We build projects from schematic diagrams, make programs based on class examples, and make devices talk to one another. Topics may include: networking protocols and topologies; mobile objects and wireless networks; digital logic and numbering systems. Students create a digital portfolio to document their work and research. Prerequisite: Physical Computing I or permission from instructor

## Mathematics

### **Mathematical Art** (2x per week)

Come make beautiful things with math! See countless examples of gorgeous art, simple art, clever art, and mind-blowingly amazing art, all made from mathematical ideas. Drawings, sculptures, computer-aided designs, video, pieces of music, and performances are all fair game—everything from M.C. Escher and symmetric patterns to origami, string art, dancing, and much, much more! At every step we also work on our own mathematical art and incredible creations in a collaborative workshop environment. NB: We often meet during one lunch period.

### **Problem Solving** (2x per week)

Problem Solving is an interactive and fun class for sixth, seventh, and eighth graders who love solving math problems, and is especially suitable for students interested in participating in mathematical contests such as MathCounts and the AMC 8. Students will explore and develop efficient problem solving strategies involving arithmetic, logic, geometry, algebra, and trial and error. Problem Solving is not intended to help students “get ahead” in the math curriculum, but rather to supplement an established or burgeoning love of mathematics.

*NB: We often meet during one lunch period.*

### **Infinity** (*Lockhart*) (2x per week)

Mathematics abounds with infinities. There are infinitely many numbers, an infinity of different shapes, and each shape consists of infinitely many points. Between any two points on a line there are always more, and the list of prime numbers goes on forever. In this class we will explore the mathematics of infinity: transfinite numbers and their arithmetic, induction and recursion, the continuum and its mysteries, infinite sequences and convergent sums, the method of exhaustion and the measurement of curves and surfaces. If you are curious and love to think and discuss ideas, then this is the class for you!

## Recreational Arts

Each Middle School student will have at least two Recreational Arts classes each week: one traditional gym, and either a second one or another offering by the department. Students may select additional courses as part of their recreational arts requirement.

### **Fencing I** (1x per week)

An introduction to the sport of fencing, including basic technique and conditioning. Also included are execution of simple attacks and defensive actions, with special emphasis on developing proper form.

### **Fencing II** (1x per week)

This course offers advanced techniques of fencing including competitive strategies, a broader range of ripostes, etc. Prerequisites: Fencing I, approval of department chair or fencing instructor.

### **Inward Bound** (1x per week)

This course challenges the body and mind through group games, conditioning, and individual and collective goals. Students set goals and attempt to reach them by working together and offering group support. NB: This class meets during the Fall semester only. Students will join a gym/park class for the second semester.

### **Karate I** (1x per week)

This course offers a serious, non-intimidating approach to traditional martial arts. Students begin with basic punches, kicks, and blocks, and then progress to forms and other basics on their way to sparring. The primary emphasis is on karate as a sport and martial art, although confrontation training and self-defense applications are also covered. A gi (karate uniform) is both required and provided.

### **Karate II** (1x per week)

This course is for students who have completed one year of karate at Saint Ann's. It focuses on material for the yellow-belt rank and above. A gi (karate uniform) is both required and provided.

### **Middle School Exercise** (1x per week)

This course provides an introduction to various forms of exercise and conditioning which may include strength and cardiovascular training, fitness walks, climbing, yoga, group games, and sport skills.

### **Yoga** (1x per week)

This course introduces the ancient discipline of personal development that balances body, mind, and spirit. Students learn a series of physical postures, meditation and other practical methods for relaxation and proper breathing that promote health, alleviate stress, improve skeletal alignment, and increase muscular strength and flexibility.

## Science

### **Food & You** (2x per week)

In this course we investigate the chemical properties of food, the effect of diet on health, the sensory evaluation of food, metabolic disorders, food contamination, food engineering, and the food industry. The curriculum is highly student driven. We tackle topics such as: Is organic food really healthier than non-organic food? What are the pros and cons of GMOs? Is there any validity to the 5 second rule of dropped food? Why do we like sweets? Why don't some kids like eating vegetables? What is gluten and why are so many people going gluten-free? A hands-on, lab-based approach (not approached) to the subject helps students become informed foodies as they learn about the scientific world of food!

### **Sustainable Earth** (2x per week)

How can we live more sustainably in one of the world's largest cities? How can we use technology to reduce our carbon footprints? In this course we will explore, discuss, and design solutions for environmental challenges. We'll look at nature as a blueprint for creating sustainable systems. Projects include testing the quality of our local waterways, designing and building city models to protect from intense weather events, tinkering with wind and solar tech, and examining our waste stream. Along with collecting data and creating models, this hands on course will include field trips to sites around the city.

## Theater

All eighth grade students must choose at least one theater course.

### **Acting Through the Ages** (1 double period per week)

From the beginning of time people were actors and storytellers. There was also quite a bit of combat happening, too. In this course we work our way through a timeline of theatrical styles, playing characters, rehearsing and performing scenes and monologues, and learning some stage combat skills. We work toward physicalizing the energy and emotions contained in each genre. We meet up with the clowns of some ancient Roman comedies, the most complicated villains, dreamers, and fighters of the Shakespearean era, and the nineteenth century's most melodramatic families. If we make it to modern times, we'll investigate screenplays, soap operas, and recent Broadway revivals.

### **African Dance** (1 double period per week)

This course offers an exciting introduction to the joys and complexities of traditional West African music, rhythms, culture, and dances. Come one, come all!

### **The Art of Comedy** (1 double period per week)

Comedy improvisation and slapstick have as their roots the popular street theater of sixteenth century Italy known as *Commedia dell'Arte*. In this exciting introduction to comic acting and theater history, students create characters through mask work, develop funny walks, learn to juggle, and try their hand at comedy writing and directing. While students explore this spirited

and physical style of theater, they continue to work with the improvisation exercises and theater games of contemporary theater. This course is open to those interested in ensemble work, silliness, and risk-taking. Workshop performances develop from this course.

### **Breaking the Gender Code** (1x per week)

In the bloodstream of media, advertising, and pop culture is a coded conversation about gender that we are all profoundly impacted by. In this class we will explore how cis-gender women and men, transgender, and non-binary people are depicted in film, music, tv and advertising, as well as the counter-cultural influences that have challenged these representations. Some topics of discussion include: gender archetypes in superhero narratives, women and horror movies, genderqueer music icons, toxic/non-toxic masculinity in media, powerful heroines in action films & thrillers, the male gaze, how stories of queer identity were disguised as cis-normative narratives in the golden era of Hollywood, and the selfie-gaze; how social media affects our perceptions of gender and of ourselves. At the end of the year, each student crafts a final project exploring one aspect of new media or technology that we have covered in our class.

### **Costume Production** (1x per week)

Students study costume by learning to sew by machine and by hand. In addition to learning different sewing techniques, students learn about costume history, patternmaking, and draping. They are encouraged to draw costumes and personal design ideas. Students construct costumes for each middle school theater production, as well as work on several personal projects.

### **Filmmaking** (1 double period per week)

During the first semester we deal primarily with cinematic technique and theory for the first-time director/ screenwriter. These areas of study include camera direction, directing the actor, narrative structure, screenplay format, and a preliminary survey of domestic/international film from past to present.

In the second semester the class morphs into more of a production workshop, in which students work in groups of three to implement the techniques and theory they learned by writing, producing, casting, directing, shooting, designing, editing, and screening their own short films. Each group of three produces one three-to-five minute black and white digital film with limited dialogue and an emphasis on telling a story visually. At the end of the year, our films are screened in the Middle School Film Festival.

### **High Velocity Dance** (1x per week)

This is an exciting course, jam-packed with skills, fitness, and combinations. The various dance styles covered may include: swing, jitterbug, modern, jazz, salsa, ballet, tap, hip-hop, and musical theater dance. There are opportunities for students to create their own choreography, perform, and collaborate on a dance video unlike any they have ever seen! No previous dance experience is required. Athletes, gymnasts, actors, and artists will all enjoy this class!

### **Playwriting** (1 double period per week)

This is a workshop course in which students read their work to each other, and then discuss and improvise on the material presented. By the end of the first semester, each student has written a one-act play that is presented as a staged or semi-staged reading at the Middle School Playwriting Festival. In the second semester, students will gather for one period to read great plays and scenes aloud. There will be no homework.

### **Puppetry** (1x per week)

This class is for students who want to learn how to build many different styles of puppets: rod puppets, marionettes, hand puppets, and life-size body puppets for the annual Puppet Parade. Students who want to put a puppet show together are welcome to do so.

### **Puppetry Production** (1 double period per week)

This class is for more advanced puppetry students who want to continue exploring and building different styles of puppets while taking their puppet-building skills to a higher level. Students who want to create a puppet show together are welcome to do. Prerequisite: two years of puppetry.

### **Technical Theater** (1 double period per week)

An introduction to stage carpentry and other theatrical craftsmanship, Technical Theater is both a practical and a theoretical course. Carpentry, electrics, audio, and effects lectures act as groundwork for hands-on experience with power tools, lighting equipment, and sound gear. Students work side-by-side with their teachers, developing basic stage construction skills, building flats and platforms, creating props, and painting, all the while adhering to stage etiquette in this productive environment. We encourage and welcome students who wish to extend themselves further to apply for a position on a production running crew.

*Please note that being a member of a running crew requires time outside of class, along with the need to miss other classes during production. Also, please be aware that due to size limitations and safety considerations, enrollment priority will be given to seventh and eighth graders.*

### **Theater Workshop** (1x per week)

Step into somebody else's shoes. This course includes basic acting techniques, improvisation, theater games, scene and monologue work, and character exploration. Scripts of various kinds are investigated, and "workshop" performances develop from this course. Come explore your silly and serious sides. If you only have one period to devote to theater or you have room for a little extra theater in your schedule, this fun and action-packed course is for you!



# Specialty Courses

## **The Bible as Literature** (1x per week)

This course will provide an introduction to the Bible, in both its Jewish form (the Hebrew Bible) and the later Christian collection (the Old Testament, identical to the Hebrew Bible but in a different order, and the specifically Christian writings of the New Testament). We will read a sampling of the stories, histories, poetry, letters, sermons, and essays that are foundational to these two religions, and are also deeply embedded into our arts and culture. Encounter here Adam and Eve, David and Goliath, the wisdom of Solomon, the apple of your eye, the writing on the wall. Links to literature from around the world will be made as well.

## **Middle School Literary Magazine**

The Middle School Literary Magazine is created by a board of students and faculty advisers whose goal is to find and publish excellent middle school writing. The Board (generally about eighteen students) meets once a week to discuss and select poetry and prose. In addition, board members prepare all selections for layout. Students who are interested should be prepared to read all submissions in advance of meetings, and to participate in every discussion about every piece. Please note: Lit Mag will take place from November through May and may be scheduled during a Lunch period.

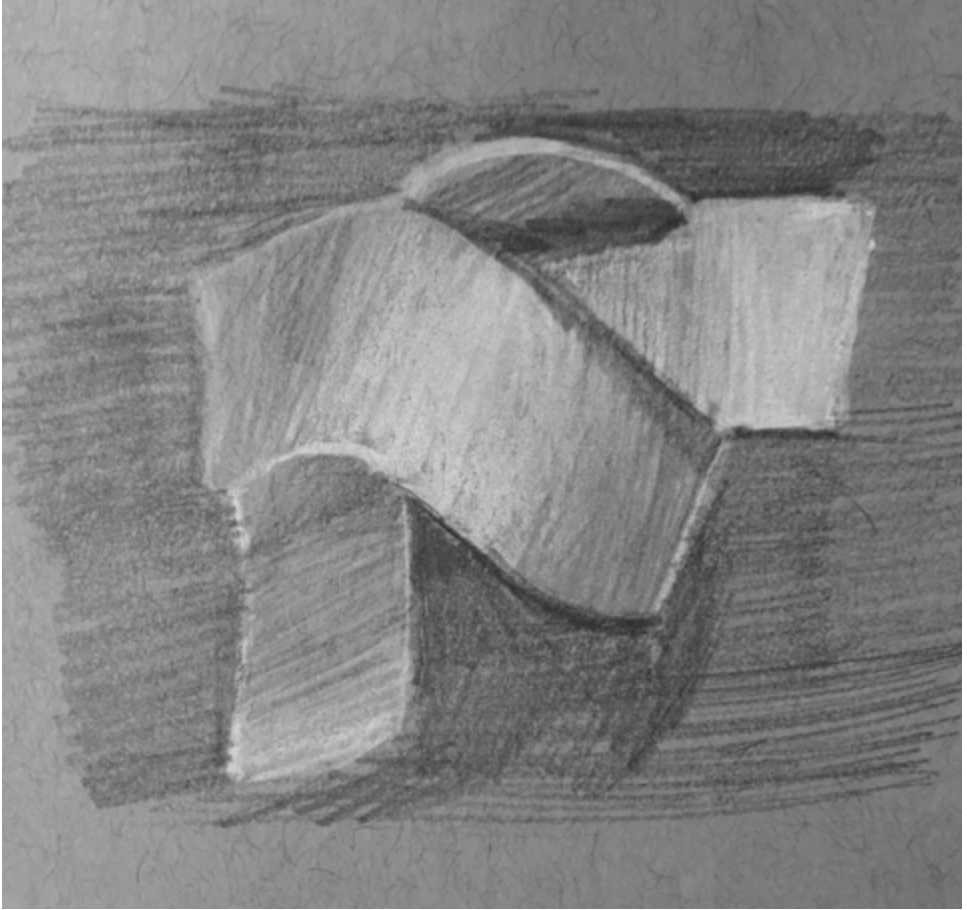
## **Oratory and Rhetoric** (1x per week)

Students learn to deliver two-minute speeches, mostly unscripted, on a wide range of themes. Various debate subjects, as well as age-old rhetorical methods taken from classical schools of rhetoric, and still used by our more literate politicians, are explored by the group. Students invent, set, and artfully articulate their own ideas. In the spring, students are invited to test their speaking skills and legislative proposals at the Packer Model Congress. This course is open to anyone with mental stamina and a desire to speak in a formal setting.

## **Poetry** (1x per week)

A workshop—a place where things are made with tools. We experiment; we play with words, ideas, and the devices people use to make poems. We make poems.





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