

Mosaic Class Descriptions Fall 2022

Meeting Mondays & Wednesdays

September 12 - May 17

A note on class placement: Academic age groups (Upper Elementary, Middle School, High School) are recommendations with flexible boundaries. Placement is based on both age/ability and at the discretion of the Instructors and Program Director. For inquiries, please contact jayne@mosaicfreeschool.com

MONDAY CLASSES

Algebra I (ages 12+, full-year course)

Instructor: Christine Coleman

In this course, students will learn to think more abstractly and analytically. They will write, solve, and graph linear and quadratic equations as well as solve quadratic equations through factoring, completing the square, graphing, or applying the quadratic formula. This course will also study monomial and polynomial expressions, inequalities, exponents, functions, rational expressions and equations, percents, ratios, and proportions. Algebraic skills will be applied in a wide variety of problem-solving situations.

We will meet one day in person on Mondays (1.5 hrs) and one additional day online on Thursdays or Fridays (45-60 min) for 75 total hours of personalized instruction.

Students will take a diagnostic test in the summer to determine areas of weakness to address prior to class. Summer work will be assigned to review and practice foundational topics necessary for success in Algebra.

Prerequisite: Pre-Algebra

Course Materials: Textbook: McDougal Littell Algebra 1: Applications, Equations, Graphs, TI-84 Plus CE or TI-84 Plus graphing calculator, and a spiral-bound graphing paper notebook

Homework: There will be 2-4 lessons per week with 10-20 homework problems per lesson, and a chapter assessment every 2-3 weeks. Expect 1-2 hours of homework each week outside of the classroom.

Tuition: \$400/semester

Writers Workshop (ages 13+, semester or full-year course)

Instructor: Emily Axelrod

This class will focus on improving academic writing and strengthening foundational skills in grammar/mechanics, paragraph construction, and text analysis. Students will learn how to craft paragraph and essay responses with clear, evidence-based reasoning. Our class will include weekly readings and journal entries that students will revise into short essays in MLA format. Along the way, they will learn strategies for revision, editing and proofreading, and reflection on the writing process. What makes the workshop come alive is the ability for the students to share their writing within a supportive class community and to receive and offer constructive feedback. This workshop is a wonderful supplement to the Mosaic literature and history classes as support for student writing or can be taken as a standalone class.

Prerequisite: Students must be at an 8th reading level. They should be able to independently write at least two paragraphs with a basic command of grammar. Students should possess basic competency with conventions of standard English capitalization, punctuation, and spelling.

Tuition: \$360/semester

Mosaic Class Descriptions Fall 2022

Biology w/ labs (ages 14+, full-year course, meets for a 2-hr block)

Instructor: Cristen Pantano

In this year-long class, we will delve into the biochemical pathways and forces that power life. We'll start with atoms, build up to biomolecules, and continue through cells up to evolution and the study of whole organisms. We will be using the "flipped" classroom model where the reading is done before the material is presented in class. This allows students to become familiar with the concepts before each class, bring questions and insights, and allows us to go deeper with biochemistry and application of the information during class time. In addition to class discussions, we will have near-weekly hands-on labs to further students' understanding and application of the class material. We will be covering one chapter of a standard tenth-grade biology textbook per week, using Miller and Levine Biology, 2014.

All material will be presented at the standard level, as well as the Honors/AP Level for those wishing to delve deeper. Mastery at this deeper level is not required and each student may choose the level of learning appropriate for their needs and ability.

Tuition: \$400/semester

Active Physics (ages 14+, full-year course, meets for a 2-hr block)

Instructor: TBD

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. The class will engage students in physics with "real world" applications and projects such as designing a roller coaster, developing a sport that can be played on the moon, and creating a light and sound show. The activities and experiments entice the student and are followed by instruction and mathematical exploration to cement the concepts. There are collaborative projects that give students opportunities to work together and make presentations to demonstrate knowledge. Class time is spent conducting labs and discussing topics as well as working on group activities.

Prerequisite: Algebra I

Optional Honors Track: This will include delving deeper into the concepts, additional assignments, and a research paper.

Tuition: \$400/semester

American History (ages 14+, full-year course)

Instructor: Allison Sabatini

This class will explore the history of the United States from colonialism through the civil rights era. Students will acquire an understanding of the various political, social, intellectual, and economic trends that have characterized American history through the 20th century, with a special emphasis on the exploration of voting rights. The founding fathers declared our government was "of the people, by the people", yet many people had to fight for their suffrage. We will use primary and secondary sources, movies, songs, and art to tell the story of real people who overcame obstacles and did something extraordinary for their community.

Tuition: \$360/semester

Mosaic Class Descriptions Fall 2022

High School: American Literature (ages 14+, full-year course)

Instructor: Jennifer Filannino

Using a variety of key texts, students will explore what makes literature uniquely American. Students will read genres ranging from plays, essays, poetry, and novels. In doing so, we will generate answers to the question, "What does it mean to be American?" Through exposure to, for example, the poetry of Emily Dickinson and the essays of Henry David Thoreau, students will become familiar with a variety of American experiences. This is a discussion-based class with a special emphasis on critical analysis through writing.

Please contact the instructor for a proposed book/reading list.

Tuition: \$360/semester

Current Events & Extemporaneous Speaking (ages 12+, may be taken full-year or by semester)

Instructor: Natasha Benkendorf

Students will follow current domestic and foreign events throughout the year. They will practice ways to annotate the information and organize it for use in speech or debate. Students will then use this information to respectfully discuss their opinions about events and issues. Eventually, they will practice how to use their collected information to deliver extemporaneous speeches with minimal preparation.

Tuition: \$340/semester

Art History (ages 12+, full-year course)

Instructor: Mariya Kovalyov

This class promotes a deep understanding of art throughout the history of humanity through the study of art movements, concepts, and their connection to historical events. Students will develop visual and critical analysis through the course. By examining diverse cultures through the lens of art, students will broaden their knowledge not just in art, but also delve deeper into history, geography, literature, traditions, religions, ethnicity, political and economic progress. The material covered in class will deepen their comprehension of artistic advances from a global perspective, as well as sharpen their visual, critical, and comparative analysis. For each time period, the students will go over major and memorable works of art, examine how the events of the time influenced the artistic development, connect the art to the current events of the time in question, analyze the intended use of the artwork, the audience, and the role of artistry in the society.

Reference Books: Gardner's Art Through The Ages, Living With Art by Rita Gilbert

This class will be followed by Art History II spring semester.

Tuition: \$340/semester

Art Workshop II (ages 12+, may be taken full-year or by semester)

Instructor: Lisa Young

This class is aimed at middle school students that have completed Art Workshop I. The course will focus on taking a student's art skills to a superior level. Students will be taught advanced drawing, painting, palette knife and sculpting techniques and will be introduced to a number of new mediums. Mediums: Graphite pencil, watercolor, colored pencil, charcoal, acrylics, oil pastel, ink, and polymer clay.

Please contact the instructor with questions about student placement.

Tuition: \$340/semester

Mosaic Class Descriptions Fall 2022

Middle School Chemistry (ages 12 - 13, semester class)

Instructor: Cristen Pantano

In this semester-long class, we will use the American Chemical Society's Middle School Chemistry curriculum to learn the fundamentals of chemistry in a hands-on manner. Through dynamic labs and hands-on exercises, students will learn about atoms, bonding, chemical, and physical properties as well as chemical reactions.

This class will be followed by Environmental Science in the spring semester.

Tuition: \$340/semester

Diving In: Literature for Middle School (ages 12 - 13, full-year course)

Instructor: Sachi Tripp

In this middle school literature class, we will take a deep dive into both contemporary and classic novels, short stories and poetry. Through guided discussions and short responses both in and outside of the classroom, students will explore literary styles and devices, develop and support their own opinions with text-based evidence, and practice identifying plot, theme, figurative language, and other important elements of fiction analysis. Additionally, students will have regular vocabulary lists, writing responses based on the texts, both group and individual projects and classroom presentations.

The booklist will be finalized based on student enrollment/parent input and may include the following: *Animal Farm* by George Orwell, *The Outsiders* by S.E. Hinton, *A Single Shard* by Linda Sue Park, *To Kill a Mockingbird* by Harper Lee, *Across Five Aprils* by Irene Hunt, *The Giver* by Lois Lowry, *Roll of Thunder, Hear My Cry* by Mildred Taylor, *A Wrinkle in Time* by Madeleine L'Engle

Tuition: \$340/semester

Art Workshop I (ages 10 - 11, may be taken full-year or by semester)

Instructor: Lisa Young

Art class focused on bringing each student to the next level in their art journey. The course will lead the student from basic drawing skills through to advanced painting techniques using a wide range of mediums. Students will have the opportunity to express themselves in both realistic and abstract visual arts, as they work towards developing good foundational art skills. Class will include still life, portraiture, landscape, life drawing, cubism, impressionism, surrealism, and sculpture. Mediums: Graphite Pencil, colored pencil, charcoal, watercolor, pastel, clay, and acrylic.

Please contact the instructor with questions about student placement.

Tuition: \$340/semester

Critical & Creative Thinking Circle (ages 10 - 11, may be taken full-year or by semester)

Instructor: TBD

This is a hands-on problem-solving class where the focus will be on creative, critical, and divergent thinking. These are areas rarely covered in a typical school setting but highly sought after in the real-world settings of business, academia, and modern high-tech industry. Each week students will be encouraged to solve challenging and complex problems individually and collaboratively in small teams where they will learn to appreciate each other's input and value alternative approaches. We will discuss multi-step and open-ended problems, brainteasers, math puzzles, and logic problems as students learn to distinguish what is relevant for obtaining

Mosaic Class Descriptions Fall 2022

a solution. We will even make mistakes and enjoy them! For more information on the history of this approach (inspired by an ideology that employs more problem solving vs. computational or textbook math) please visit the website [Mathcircles](#).

Tuition: \$340/semester

Full STEAM Ahead!

Instructor: Caitlin Ayers

This hands-on class is an exciting semester full of student-led, teacher-guided lessons and activities centered on engineering, physics, electricity, and technology culminating in a capstone project. Students drive the learning and tackle the projects as a team while the instructor facilitates, providing guidance and coaching. Literacy and art will be integrated into this hands-on collaborative class to foster important life skills while helping to spark a lifetime interest in STEM disciplines.

Tuition: \$340/semester

Ancient History (ages 10 - 11, full-year course)

Instructor: Sachi Tripp

Through hands-on projects and historical fiction and nonfiction, students will fully immerse themselves in ancient history. We will cover a wide range of topics including early nomadic humans, Ancient Egypt and China, early Roman life and religion, and more. Students will explore this period in history with group projects, presentations, and writing.

Tuition: \$340/semester

Literature Circle (ages 10 - 11, full-year course)

Instructor: TBD

The purpose of this class is to foster a love of literature and an appreciation for the ability of a story to capture one's imagination. Students will be reading three to four novels over the course of each semester, and exploring what makes great literature through hands-on activities, class discussion, and age-appropriate writing assignments. Basic literary elements (plot, character, setting, theme, etc.) will be identified and analyzed, as students develop the ability to thoughtfully critique a novel and express their views in a group setting. Outside work required for this class will consist of reading assigned chapters and preparing for class discussions and projects. The book list will be finalized based on the preferences and ability levels of registered students.

Tuition: \$340/semester

Mosaic Class Descriptions Fall 2022

WEDNESDAY CLASSES

Digital Photography (15 weeks)

Instructor: Mariya Kovalyov

In this course students will learn about both historical and technical aspects of photography, appreciating photography as an art form while also learning practical skills and applications. Each week we will discuss the work of one or more well-known photographers and then students will get an opportunity to shoot some of their own images. They will have the chance to show their work to the class and both provide and receive constructive advice and critique. Adobe Photoshop and Lightroom software will be used for the class - no previous experience is necessary. We will spend some time learning new skills in Photoshop and Lightroom each week and students will come away with a solid foundation in this software. By the end of the course, students will improve their skills with both pure photography as well as digital photo manipulation.

What is needed for the class:

- A digital camera (preferably not a phone or tablet, though those can be used in case of emergency).
- A laptop that has Adobe Photoshop and Lightroom loaded onto it. The Photography Plan for Adobe Photoshop and Lightroom is \$19.99/month.

Tuition: \$300/15-week semester

Spanish I (full year, 30 weeks)

Instructor: Sra. Gabriela Masana, (native of Argentina), LEARN Associates

This course is the equivalent of 1st-year high school Spanish and is open to Middle School and High School students (8th grade and up). It will be taught by a native Spanish speaker/educator, who will use Spanish as the teaching language as much as possible to help students acquire comprehension, oral, and pronunciation skills from the beginning. The class will introduce vocabulary, reinforce grammar, and acquaint students with Spanish culture. Students will at first be introduced to Spanish through visual oral exercises based on the QTalk method. (Material will be provided). This allows the students to learn how to form full sentences in Spanish with the help of visual cues. Students will then transition to a more traditional textbook and companion book titled *Spanish is fun 1*, by AMSCO/Perfection Learning. There will be regular (at home) quizzes and several tests for the purpose of confirming comprehension and progress, and two written assessments provided by the instructor.

Text: Spanish is fun and companion workbook (estimated cost \$30).

Tuition: \$350/15-week semester

Drama Improv (15 weeks)

Instructor: Montclair Film Instructor

The fundamentals of improvisation are the fundamentals of life. Listening, agreeing, forwarding action, taking care of your partner and so much more. You'll be introduced to those lessons as you play games as well as create characters and scenes using a variety of improv and creativity exercises. You can't do anything wrong, no experience necessary! Number one rule is to have fun!

Tuition: \$300/15-week semester

Mosaic Class Descriptions Fall 2022

Python Coding (15 weeks)

Instructor: TBD

Let's build something cool in Python! This class will introduce students to the basics of programming and problem-solving using the language of Python. Students will boost their coding skills while creating an awesome game to share with the world in this exciting crash course on the Python programming language!

Students will need the Python IDLE (Integrated Development and Learning Environment) loaded on their laptops. If a student does not have access to a laptop for the class, one will be provided but may be used in class only and not be taken home each week.

Tuition: \$400/15-week semester

Screenwriting & Filmmaking (15 weeks)

Instructor: Montclair Film Instructor

In this hands-on filmmaking workshop, students will learn the art of filmmaking from script to screen. Students will work together as a film crew to generate ideas, write short screenplays, direct actors, and learn camera, lighting, and sound techniques. Students will also learn the basics of editing in Adobe Premiere Pro. In each class, students will work both behind and in front of the camera, in both exterior and interior locations, so that they can gain as much experience as possible.

This class will build on skills learned from the Screenwriting & Filmmaking classes offered in 2021-2022 at Mosaic and is appropriate for both returning and new students.

If enrollment exceeds 12 students we will break the class into two sections by age/experience.

Tuition: \$400 (includes all equipment and supplies)/15-week semester

Art: Sculpture (15-weeks)

Instructor: Lisa Young

Students will utilize various types of media to create 3-dimensional, sculptural art forms. Fundamental sculpting techniques will be introduced such as modeling, casting, carving and mold-making. Materials will include clay, polymer clay, wood, papermache, plaster and resin. Students will learn about the history of sculpture, architectural applications and contemporary movements. At least one group project will be undertaken where the students can collaborate on the design and building of a piece of sculpture.

Tuition: \$300/15-week semester and \$75 supply fee

Creative Writing Workshop (15-weeks)

Instructor: Jennifer Filannino

Spark your creative mind and become a better writer! This class will be focused on the writing process and sharpening already existing writing skills as well as building writing confidence. The class will begin with a review of the foundational techniques needed to write (such as brainstorming, drafting, and revising), and then move into a more interactive, dynamic writing experience in which students will generate new material, share their work with others, and learn how to workshop and critique. Students will build a writing portfolio out of imaginative prompts, journaling assignments, stories, poetry, and their own creative exploration.

Tuition: \$300/15-week semester

Mosaic Class Descriptions Fall 2022

Art: Jewelry Making (15-weeks)

Instructor: Lisa Young

The class is designed to provide students with the opportunity to explore 3-dimensional wearable art. Using the elements of art and the principles of design students will produce several pieces of unique personal adornment. The course will also incorporate the history and social context of jewelry and its significance in society. Great class for students that like to work with their hands and use new materials. Mediums: Paper, polymer clay, wire, metal and more.

Tuition: \$300/15-week semester and \$75 supply fee

Odyssey of the Mind (6-8 month commitment)

Coach: Jennifer Basile

Odyssey of the Mind is a creative problem-solving competition. Students work as a team over the course of the year to develop a unique solution to a "long-term" problem of their choice.

Problems range in scope from technical to artistic/literary interpretations. Solutions are presented in the form of a team-created skit. Students are mentored and facilitated by a coach but are strictly required to formulate their own solutions and complete all work with no outside assistance from parents, coaches, or friends. They develop valuable teamwork skills in creating their solution, writing a script, building a theatrical set, designing costumes, characters, props, artwork, and any required technical devices, and managing a project budget. The team will perform at a regional tournament in early spring, possibly advancing to State and World levels, improving their solution as they progress.

In addition to the long-term problem, the competition includes a "spontaneous" problem-solving component consisting of a short (3-5 minutes) hands-on or verbal challenge. This may include building an apparatus from random supplies, improvisation, and other quick-thinking creative tasks. To prepare, students will spend ample time on creative and divergent thinking exercises in class to ignite imaginations and sharpen problem-solving skills.

Odyssey Teams are made up of no more than 7 students and require *a significant amount of dedication and time outside of class*. Teams usually meet for an additional day each week at a place/time organized by the Coach and team members.

Age requirement: This is a Division II Team - all team members must be less than 15 yo by May 1st, 2023.

Tuition: \$200 for the year. This is a Mosaic-sponsored team. Competition and team fees will be covered by Mosaic.