

Fairfield Junior High School Course Descriptions Grade 9 Classes 2021-2022

The following core classes are required for all 9th grade students

4055

English 9: The objective of this course is to help students master the communication skills necessary to succeed in high school and beyond. Students will read and write daily to develop literacy. Writing will focus mainly on the basics of argumentation, and students will submit multiple writing assignments each term. They will learn the conventions of English grammar and usage, build vocabulary, understand literary elements, read literary and informational texts, and learn the elements of grade-appropriate written communication. Students will study a variety of increasingly more challenging texts, including classical mythology and Shakespeare, as well as novels, short fiction, and poetry from various cultures and genres. Independent reading (outside of class) is required, and students are expected to carry a reading book of their choice at all times. An Honors Designation will be available to any student meeting requirements.

5200

Secondary Math 1

This course will build on and extend concepts learned in 8th grade mathematics. Specifically, this course will deepen and extend understanding of linear relationships and connect that to understanding exponential functions. Additional concepts taught will include compound linear inequalities and absolute value functions, solving systems of linear equations and inequalities, arithmetic and geometric sequences, transformations of geometric figures, applications of distance and midpoint formulas, triangle congruence theorems, computing and comparing measures of center and spread, lines of regression and correlation, and geometric constructions using straight edges and compasses. An Honors Designation will be available to any student meeting requirements.

OR

5310

Accelerated Secondary Math 2: This class is for the 9th grade student who took Accelerated Secondary I Honors during 8th grade. This is an extremely fast-paced class where most concepts taught after the first week of school are new concepts and not repeated from previous grades. There are no retakes on quizzes or tests in this class and students must know and remember math concepts taught in previous math classes. Students who did not earn grades of B+ or higher in Accelerated Secondary I Honors Math may struggle in this class. This class will focus on quadratic expressions, equations, and functions, extend the set of rational numbers to the set of complex numbers, link probability and data through conditional probability and counting methods, study triangle congruence and similarity, right triangle trigonometry, and study circles including their quadratic algebraic representations. Concepts will be explored in greater depth with increased use of contextual situations. In addition, they will study complex numbers and their operations on the complex plane, solve systems of equations, prove and apply trigonometric identities, express conic sections algebraically, and solve problems using volume measurements. This course will include elements that will prepare students to take calculus in high school. This course will have increased rigor and advanced content that will challenge the minds of high ability students.

4520

World Geography: This course will explore the role geography plays in the physical environment, population and culture, and political and economic systems of world regions. Basic geographic skills will be emphasized including map reading and making, interpretation of charts and diagrams, and the development of effective reading and communication skills. Students will also have the opportunity to explore current issues and concerns to help them become informed global citizens. An Honors Designation will be available to any student meeting requirements.

OR

4590

AP Human Geography

This college-level course introduces students to the study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. The Advanced Placement (AP) program is sponsored by the College Board. AP classes help students prepare for college. In addition, participating colleges give credit to students who earn high enough scores on the AP exam. The exam is optional; however, all students taking the class are highly encouraged to take the test. Students should be prepared to complete work that includes academic reading and writing as well as field studies and research to help them become more engaged in contemporary global issues and more informed about multicultural viewpoints. All 9th graders are required to take geography. AP Human Geography fulfills this requirement.

6200

Biology

Students who take this class will earn one unit of High School Biology credit through laboratory experiences, investigational research and problem-solving techniques. The learning objectives that will be covered include ecology, structure and function of life (cells and body systems), genetics and evolution. **This is a 10th grade curriculum that most 9th grade students will find very challenging. As such a B or higher in 8th grade math and science will be required.** This class will help 9th Graders to meet graduation requirements, perform well on the ACT, and enter higher education. This class is highly recommended for students wanting to take AP Science classes in high school.

OR

6300

Earth Science: Students who take this class will earn one unit of high school earth science credit through laboratory experiences, investigational research, field work and problem-solving techniques. This class integrates astronomy, biology, chemistry and physics. Students will explore the energy, interactions and environmental impacts within the biosphere, geosphere, atmosphere, hydrosphere, and solar system. This class will help 9th graders to meet graduation requirements, prepare for higher education, and perform well on the ACT.

1022

PE SK & TECH 9 or Falcon Fitness: This course focuses on a variety of team sports, games, lifetime sports, and activities. The students will experience Lifetime Sports by going on **FUN** field trips! These field trips will include bowling, swimming, miniature golfing, and playing tennis! This course also provides instruction aimed at improving and maintaining physical fitness.*Falcon Fitness requires no PE dress.

The following classes are FULL YEAR Electives

214

LIA Peer Leadership: LIA Peer Leadership –Latinos in Action (ELECTIVE): The mission of the Latinos in Action class is to empower our Latino youth through culture, service, leadership and excellent education with the sole purpose of graduating from college. This class trains students as paraprofessionals who visit and tutor local elementary school children. LIA students also learn and improve their leadership skills through their roles with LIA. LIA students organize activities and initiate service projects together.

Pre-requisite: GPA of 2.5 or higher and application.

850

Released Time/LDS Seminary: Released Time is an opportunity for the student to be released by the parent from the school proper for one period for religious or other unique educational pursuits. Released Time does not generate academic credit toward graduation.

Band 1 (Fine Art)

Want to learn an instrument? Beginning Band is a hand-on, exploratory class where you will learn an instrument of your choice! By participating in band students will gain an understanding of how to read and interpret music, work as a unit, and express themselves through various means. This course is broken up into three sections in order to best serve the various instrumental needs and provide a more enriched classroom environment (*see the class descriptions below to determine which course to register for based on instrument preference*). Please note that home practice is required and expected for all classes. If you have previous music experience and are interested in joining Concert Band, please contact Mrs. Groneman for more information. This is a course for anyone, regardless of previous experience.

2204

Band 1 Brass: In this class, students will learn how to play either Trumpet, Trombone, or Baritone with the option to expand instrument selection to include French Horn and Tuba second semester. (For anyone interested in French Horn, it is HIGHLY RECOMMENDED that these students have previous music experience, and or be able to identify pitch matching-please contact Mrs. Groneman for more information). **7th, 8th, and 9th grade welcome!**

2205

Band 1 Woodwind: In this class, students will learn how to play either Flute, Clarinet, Oboe, or Bassoon with the option to expand instrument selection to include Bass Clarinet and Saxophone second semester. (For anyone interested in Oboe, Bassoon, or Saxophone, it is HIGHLY RECOMMENDED that these students take private lessons - please contact Mrs. Groneman for more information). **7th, 8th, and 9th grade welcome!**

2210

Band 2 (Fine Art): Concert Band is an intermediate ensemble designed for students that have gained some instrumental proficiency, but who still want to develop their talents. In this ensemble students will expand their music abilities through performance, theory analysis, and personal connection. Students will not only learn various musical works, but will have a knowledge of major scales, arpeggios, and improv/composition skills. This ensemble has the potential to participate and or host various events, such as District Intermediate Band Festival, State Band Festival, and Solo and Ensemble. **Concert Band is open to 8th or 9th graders who have completed Beginning Band, or 7th graders by audition only** (contact Mrs. Groneman for information).

Prerequisite: Students must have completed Beginning Band (Brass, Percussion or Woodwind).

2220

Band 3 (Fine Art): Symphonic Band is the most advanced ensemble offered at FFJH, and this audition-only ensemble provides advanced instrumental students a place to hone their musical abilities and skills. Students in the Symphonic Band must demonstrate exceptional ability in music performance, understanding, and overall musicality. They are also expected to demonstrate exceptional rehearsal habits and high levels of personal commitment to the ensemble. Through participation in this ensemble, students will gain technique work, major and minor scale knowledge, and deeper insights into music theory and history. This ensemble has the potential to perform at several local or state events, such as: Elementary school visits, school assemblies, District Festivals, State Band Festivals, Solo and Ensemble, etc. It is HIGHLY RECOMMENDED that students in Symphonic Band are enrolled in private music lessons outside of class. **Symphonic Band is open to all who choose to audition, and the top performers (regardless of grade) will be chosen.**

Prerequisite: Students must have completed Beginning Band, Concert Band, and complete an audition with Mrs. Groneman.

2307

Choir 2 Mixed Choir (Year): Students will participate in singing choral music every class day. They will sing in unison as well as in parts from a variety of musical styles. This class requires a great work ethic and musicianship skills as they will be creating music at an intermediate level with both boys and girls combined in a mixed choir. Students will work on reading music, rhythm study, rehearsal techniques, and various aspects of choral music. They will learn music notation, vocabulary, and basic sight singing skills. They will perform in concerts each term.

No audition is necessary to register. Specify in registration if you are taking it for a semester or for the full year.
Pre-requisite: Choir I or teacher approval.

2310

Choir 3/Concert: In this auditioned choir class, singers will perform more advanced choral literature. They will represent FFJH at district and choir activities and in public performances. Students will continue their learning of music notation, vocabulary, and sight singing skills. They will learn advanced vocal skills in the development of both the solo singing voice as well as a quality ensemble. They will learn a variety of choral music in advanced parts and will perform at several events including concerts, assemblies, solo/ensemble festivals, and the Davis District Choral Festival. Students will be responsible to purchase a choir uniform.

Pre-requisite: Audition is required.

2314

Choir 3/Show: This is FFJH's most elite choir. In this auditioned show choir students will perform more advanced choral literature often with choreography. They will represent FFJH at district and choir activities and in public performances. They will also perform in a Musical Revue in the fall. Students will continue their learning of music notation, vocabulary, and sight singing skills. They will learn advanced vocal skills in the development of both the solo singing voice as well as a quality ensemble. They will learn a variety of choral music in advanced parts and will perform at several events including concerts, assemblies, solo/ensemble festivals, as well as many other performance opportunities.

Pre-requisite: Audition and choir uniform are required.

2405

Orchestra 1 (Fine Art): This course is for students who have taken 6th grade orchestra or have had at least one year of private lessons. Available instruments are violin, viola, cello and upright bass. Beginners may join if they have taken piano lessons or are willing to find a private instructor. Students will refine skills in playing, listening to reading, creating and evaluating music, and will develop valuable life skills such as teamwork, goal setting, proper social skills, personal responsibility and integrity. It is a full year class.

2406

Orchestra 2 (Fine Art): This course is for students who have taken intermediate orchestra or have had private lessons for at least two years. 9th graders who took advanced in 8th grade should take advanced again, as the curriculum varies from year to years. Students will refine skills in playing, listening to, reading, creating and evaluating music, and will develop valuable life skills such as teamwork, goal setting, proper social skills, personal responsibility and integrity. It is a full year class. There will be several performances outside of the normal class times.

2504

Theater 3 (Year) (Fine Art): This class gives students, who are extremely interest in drama, opportunities to perform and to expand their knowledge of the performing arts, its techniques, and career paths. Designed as a full year class, students can take either a semester or a full year. Along with the afore mentioned skills, first semester students will become knowledgeable in history and cultural advancements through and because of theater. Second semester students will study in-depth, musical theater and its impacts on society. Participating in the class will prepare students to participate in community, high school, college, and professional theaters. It is possible to receive an H or Honors Designation for this course.

Pre-requisite: Theater 1

3110

Spanish 1 (Core Elective): This course emphasizes the development of conversational skills and will be conducted in the target language. There will also be an introduction to basic reading and writing. This class is designed for non-native speakers who want to learn a second language, those with previous experience with the language should enroll in Spanish for Spanish Speakers *Students need to have above average scholastic aptitude to succeed in this course and should be able to read at grade level.*

3120

Spanish 2 (Core Elective): This course is a continuation of Spanish 1. The class will be conducted in Spanish and students will be engaged in speaking the target language in conversations, class discussions, question/answer activities, and stories. There will also be continued development in basic reading and writing. This class is designed for non-native (Spanish) speakers who want to continue learning a second language.

Pre-requisite: Passed Spanish 1 with a C or better or must demonstrate Novice High proficiency.

3130

Spanish 3/Spanish for Spanish Speakers (Core Elective): This course is a continuation of Spanish II. The class will be conducted in the target language with a high amount of student interaction. This class is designed for non-native Spanish speakers who want to continue learning a second language. There will also be continued development in basic reading and writing.

Pre-requisite: Passed Spanish 2 with a C or better or must demonstrate intermediate low proficiency.

3210

French 1 (Core Elective): This course emphasizes the development of beginning speaking skills in French. There will also be an introduction to basic reading and writing. It is designed for learners with no previous experience in French. Students previously enrolled in Dual Language Immersion French should not enroll in this level. Students should have above average scholastic aptitude to succeed in this course and should be able to read at grade level. It is not recommended for students struggling with English skills to take this course.

3220

French 2 (Core Elective): This course is a continuation of French 1. The class will be conducted in the target language and the students will be engaged in speaking the target language in conversations, class discussions, question/answer activities, and presentations. There will also be continued development in reading and writing. This class is designed for non-native French speakers who want to continue learning a second language. Students previously enrolled in French Dual Language Immersion should only enroll in this level after consulting with the teacher and counselor. Students should have above average scholastic aptitude to succeed in this course. It is not recommended for students struggling with English skills to take this course.

Pre-requisite: Passed French 1 with a C or better or must demonstrate Novice Mid proficiency.

3230

French 3 (Core Elective): This course is a continuation of French II. The class will be conducted in the target language and the students will be engaged in speaking the target language in conversations, class discussions, question/answer activities, and presentations. There will also be continued development in reading and writing. This class is designed for non-native French speakers who want to continue learning a second language. Students previously enrolled in French Dual Language Immersion should only enroll in this level after consulting with the teacher and counselor. Students should have above average scholastic aptitude to succeed in this course. It is not recommended for students struggling with English skills to take this course.

Prerequisite: Passed French 2 with a C or better or must demonstrate novice high proficiency.

3252

H French 5 DLI (Core Elective): This course continues the development of speaking, listening, reading, and writing skills at the ACTFL intermediate-high to advanced-low proficiency level in preparation for the AP French Language & Culture Exam at the end of the year. Although the exam is central to this class, students are not required to take it. Passing the exam with a score of 3 or higher is, however, required to enroll in the continuation of this program in tenth grade. Culture and geography of the French-speaking world is taught through college-level literary, cultural, and historical readings, films, and other media. Advanced grammar topics include extensive review of the subjunctive and conditional moods along with the three major time frames (past, present, and future). Students should have above average scholastic aptitude to succeed in this course and enrolling in other honors-level courses is highly recommended.

Pre-requisite: Passed H French 4 DLL. For continuing Dual Language Immersion students only.

4385

Debate 1 (Elective): This year-long course introduces students to debate. It will provide students with a set of portable argumentation and advocacy skills that can be used in a variety of life situations and educational pursuits. Students will initially learn about and practice structured extemporaneous speeches with emphasis on verbal and nonverbal delivery skills. Students will participate in "SPAR" debates and present research-based persuasive speeches on official debate resolutions. This class is ultimately for students who want to explore debate and participate on junior high and/or high school debate teams.

The following classes are ONE SEMESTER Electives

210

Office Assistant (Elective): This semester offering is for students desiring practical experiences in office routine. Students will be selected on the basis of academic achievement, attendance, citizenship and teacher recommendations, and may be assigned to the Main Office or the Counseling Center. Grading is Pass/Fail. *Office approval and minimum 3.0 GPA and satisfactory citizenship required.*

211

Teacher Assistant (Elective): This semester offering is for students desiring practical experience in daily classroom teacher activities. Students may apply for a TA position at the beginning of the desired semester and must be approved by the requested teacher. *Grading is Pass/Fail.*

213

Peer Tutor (Elective): This is a special class designed for 9th grade students who would like to improve their own life skills and who want to help others. The course focuses on self-awareness, healthy life skills, and communication. Students have the opportunity to practice these skills here at school, in the home, in elementary schools and in the community. Some responsibilities of Peer Support students include: tutoring, ushering assemblies, welcoming new students, helping 7th graders adjust to junior high, and performing random acts of kindness. Peer Support students represent our school and are held to strict standards for good citizenship. *Minimum GPA of 2.5 and no N or U citizenship. Submission of an application may be required. May be taken for 2 semesters.*

215

Library Aide (Elective): This class focuses on increasing reading engagement by reading for personal pleasure and understand research. Students will learn library procedures such as circulation and shelving, and will be reading and completing monthly book spotlights. Students will also be conducting research and will complete a research project. A letter grade is earned. *Library Media Teacher approval and minimum 3.0 GPA and satisfactory citizenship required.*

216

Peer Support 1 (Elective): This class is for students who would like to assist their classmates in various learning environments. The course requires a project each term as the student learns skills to tutor and support others. *Teacher approval required.*

400

Study Skills: In this course you will learn how to get organized, the most beneficial ways to study and have time to use your new skills to complete homework and class assignments. This is a great course for students who are

involved in extra-curricular activities who need more time to complete their studies, and for those who want to improve their skills as a student.

405

AP Research: This class is designed to give honors and AP students in all fields of study more time to master concepts taught in other classes like Biology, Secondary Math 2, AP Human Geography, and French 5 H DLI (AP French). In addition, the class will focus on effective study strategies that will help students become college and career ready. *Must be enrolled in an AP class to enroll in this course.*

1022

PE SK & TECH 9: This course focuses on a variety of team sports, games, lifetime sports, and activities. The students will experience Lifetime Sports by going on **FUN** field trips! These field trips will include bowling, swimming, miniature golfing, and playing tennis! This course also provides instruction aimed at improving and maintaining physical fitness. *P.E. uniform are available for purchase in the office or online.*

2105

Art Foundation 2 (Fine Art): This introductory course offers instruction in various art media and the basic principles of art. Each student will have the opportunity to develop a general knowledge and understanding of basic art terms, styles, skills, and techniques. *This class is for 9th Grade students who did not take an art foundations class in 7th or 8th grade. Lab Fee: \$15.00*

2106

Adv Art Foundation 2 (Fine Art): Studio Art is designed as an honors course for high school credit. It is designed for more advanced art students who may desire art to be a part of their future. Strong emphasis will be placed on drawing techniques, watercolor, oil pastels and design. This class may be taken for one semester or a full year. *Pre-requisite: Minimum grade of B in Art II required. Lab Fee: \$15.00 per semester.*

2107

Painting I (Fine Art): This popular course is for a high school visual arts credit. Students will learn techniques associated with watercolor, acrylic, and oil painting. With an emphasis on studio production, this course is designed to develop higher-level thinking, art-related technology skill, art criticism, art history, and aesthetics. *Pre-requisite – either Art I or Art II. Lab Fee: \$15.00.*

2118

3-D Design 1 (Fine Art): This course is for the High School Visual Arts Core Curriculum. This fun and exciting course provides an overview and introduction to 3-Dimensional art. Students will have the opportunity to use a variety of materials for projects. They will learn how to use Paper Mache, create masks out of plaster, create artwork out of clay and even some non-traditional materials for creating found object sculptures. *Pre-requisite: Art Foundations 1 with a minimum grade of C. Lab Fee: \$15.00*

2121

Photography 1 (Fine Art): This exciting class is an introduction to the art and technology of photography. Students will be introduced to digital and film cameras. They will learn about the different functions found on cameras and what they do. They will also learn to process photos in the dark room. And how to edit photos using computer software such as photoshop. *Students should have access to a digital camera. Lab Fee: \$15.00*

2307

Choir 2 Mixed Choir (Sem): Students will participate in singing choral music every class day. They will sing in unison as well as in parts from a variety of musical styles. This class requires a great work ethic and musicianship skills as they will be creating music at an intermediate level with both boys and girls combined in a mixed choir. Students will work on reading music, rhythm study, rehearsal techniques, and various aspects of choral music. They will learn music notation, vocabulary, and basic sight singing skills. They will perform in concerts each term.

No audition is necessary to register. Specify in registration if you are taking it for a semester or for the full year.
Pre-requisite: Choir I or teacher approval. Class Fee: \$15.00

2504

Theater 3 (Sem) (Fine Art): This class gives students, who are extremely interested in drama, opportunities to perform and to expand their knowledge of the performing arts its techniques and career paths. Designed as a full year class, students can take either a semester or a full year. Along with the afore mentioned skills, First Semester students will become knowledgeable in History and cultural advancements through and because of Theater. Second semester Students will study in-depth, Musical Theater and its impacts on society. Participating in the class will prepare students to participate in community, high school, college and professional theaters. It is possible to receive an H or Honors Designation for this course. *Prerequisite: Theater 1*

4335

Creative Writing 1 (Elective): This course is designed to give young writers the guidance and the inspiration to create written works of art. They will be led through a variety of writing styles and genres to broaden their experience with these literary forms. Emphasis will be placed on the creativity of the work over the precise accuracy of the mechanics, though there will be practice improving spelling and punctuation throughout the semester.

4365

Yearbook 1/Publications (Sem) (Elective): Students will work to design and produce the school yearbook. Students who are industrious, self-disciplined, motivated and responsible will do well in this class. The class will attend school events, photographing and documenting what happens. Each person will need to dedicate time before and/or after school and some evenings to attend these events and work on getting the book completed. If you cannot commit to before and after school time, this class may not be the best option. *Requirements: 3.3 or better GPA that must be maintained because you will be required to do work during some classes and attend away events, keyboarding skills, some basic photography skills, 8 teacher recommendations or 7 if you have Seminary and a completed application and portfolio are required to be considered for this class. Key staff members may take second semester to complete Yearbook production.*

6630

Science Olympiad: Science Olympiad class is a second semester class for those on the Fairfield Science Olympiad team. This program allows students to dive deep into scientific subjects and study them at a collegiate level. In addition to specific scientific subjects, students learn study skills, test-taking skills, design/engineering, and leadership. Students of any grade who want to participate must be committed for the entire year, maintain a 3.0 GPA, attend all after school practices and competitions, and have a parent/adult who volunteers. During September we will recruit in all science classes and pass out applications, and there are 3 times a week after-school practices from mid-September to May. Anyone who is committed for the entire year can be on the Junior Varsity team. Varsity team placement is based on test-taking, past experience, teacher recommendations, parent assistance, and citizenship & grades in other classes. On the Varsity team there can only be (5) 9th graders and (10) 8th or 7th graders, and the Varsity team requires the highest level of competition and commitment. Science events change every 2 years. Some of the events for this year are Anatomy & Physiology, Boomilever (bridge-cantilever construction), Circuit Lab (electrical engineering/physics), Crime busters (forensics and chemistry), Density Lab (applied Chemistry), Elastic Launched gliders (building balsa wood planes), Dynamic Planet, Experimental Design, Food Science, Fossils, Game On (game programming), Heredity & Genetics, Simple Machines, Mission Possible (Rube Goldberg machine), Mousetrap Vehicle, Ping Pong Parachute, Road Scholar (maps and topography, Water Quality & Oceanography, and Write it Do it.

7410

Child Development (Technology): Take home an electronic baby, play with shaving cream, and read children's books in a class that focuses on the development of kids from birth to age 5. You will participate in activities that will help you understand the mental, social, and physical development of children. Explore appropriate discipline practices, demands of parenthood, and the process of pregnancy in this hands-on, activity-driven class. *Lab Fee: \$10.00*

7430

Sports Outdoor Sewing (Engineering, Technology) Learn the basics of sewing while exploring outdoor materials and products. Your project options may include joggers, backpacks, fanny packs, windbreakers, sweatshirts, and more! You will explore the latest trends and technology in sports and outdoor apparel. In this project-driven class, you will create products that you can wear/use every day. *Lab Fee: \$10.00*

7445

Interior Design I (Technology): This hands-on course will allow you to explore your creativity in the field of interior design. Through many projects you will learn about careers in interior design, how to design spaces with color and theory, create floor plans, accessorize, and identify your own personal style. *Lab Fee: \$10.00*

7460

Foods and Nutrition 1 (Technology): This is a hands-on course that will help you learn the principles of nutrition and wellbeing. Subjects covered include MyPlate recommendations, carbs, fats, protein, vitamins, minerals, and water. Through frequent cooking labs, you will understand basic sanitation and safety practices of food preparation. You will eat good food, interact socially with peers, and learn skills that will be used for the rest of your life. *Lab Fee: \$18.00*

7760

Exploring Computer Science In this introduction course students will capture, edit and export digital audio; create, edit and utilize video and 2D animation; and create a web project and web pages. This class will fulfill credit for several IT pathways including cyber-security, information technology, programming and software development, web development and graphic design.

7820

Engineering Technology 1: This is a hand-on course that ties observations and concepts common to a variety of different engineering disciplines in order to develop a better understanding of basic principles used in engineering. Students will utilize problem-solving skills in a lab environment where they will develop skills and attitudes that impact and expand occupational opportunities.

7822

Engineering Technology 2: The second in a sequence of hand-on courses that ties observations and concepts common to a variety of different engineering disciplines in order to develop a better understanding of basic principles used in engineering. Students will utilize problem-solving skills in a lab environment where they will develop skills and attitudes that impact and expand occupational opportunities.

5920

Recreational Math This is an INVESTIGATIVE AND DISCOVERY MATH CLASS where we look at the macro and micro structures of math, we ask crazy questions, we try to find answers, we make conjectures and we argue theories. Assignments will take the form of activities such as creating videos or podcasts, writing a children's book for adults, making a stop-motion video, designing and advertisement, collecting data and making graphs, Socratic discussions and more.

We will investigate things like what is the true nature of infinity, is zero a number, what does the 4th dimension look like, are there really multiple dimensions, why is our number system base 10 and what if it wasn't, how can you use mathematics to predict the future, is math made up and if so, who made it up, if there are real numbers does that mean there are also imaginary numbers, and if there are imaginary numbers are there imaginary shapes, what are hyper operations, what are transcendental numbers, why is pi so famous, and how can circles be so simple yet also complex.