

Please review the Fall 2021 Class Schedule for age ranges of individual classes.

3D ART (Linda) (8-10) *Art*

Just to list a few of the whimsical, multimedia creations I've got planned for you....Crazy face planters, wearable art, monster stuffies, 3D animal portraits (faux taxidermy), weaving giant cooperative circle patio cover (for the REALM), tooled metal butterflies, felt potato head toys, and upcycled bottles. We'll be getting our creative hands busy with paint, clay, cardboard, paper mache, sewing, weaving and so much more. Come enjoy the artistic process and let your imagination soar!

ADULTING - THE LOVES, THE LOSSES, THE LEGACY (Josh) (10+) *Social Studies*

This class will combine real world practical skills with role playing games and exercises designed to teach students how to handle life! Finding a place to live, learning how to manage finances, build relationships, pursue education, find a career, maybe even have a family! We all have our own system of values, so how can we best develop the skills we will need to accomplish our goals and have a good time along the way?

ADVANCED MATH (Joe) (12+) *Math*

Prerequisite = Geometry

In this class we'll focus on developing a strong understanding of, and ability to work with, Algebra 2 level topics. This will be a review for some students who have already encountered these topics, and it will be new for any students who have not. As time allows, advanced students will be permitted to begin exploring Pre-calculus concepts and skills. Students will work at their own pace.

ADVENTURE SQUAD: OUT ON THE TOWN (Chie) (5-7) *Social Studies*

Get ready to move those legs. We will document Santa Monica through the eyes of children. Food, museums, businesses, and public spaces. We will interview people who help run our city and ask many questions like "what type of impact do they feel their choices make on the future generations?"

THE AGE OF DINOSAURS: THE MESOZOIC ERA (Linda) (5+) *Science, Art*

Kids will discover the changes that took place during the Mesozoic (the age of dinosaurs) by creating a giant mural that incorporates a timeline, a transforming planet, and the plethora of life that inhabited the various ecosystems on Earth. Using games, art, models, and basic research skills, we will endeavor to understand concepts of plate tectonics, evolution, extinction, and adaptation. Most importantly there will be lots and lots of dinosaur art, fun facts, and games.

ALGEBRA (Semester 1 of 2) (Joe) (11+) *Math*

BY RECOMMENDATION ONLY

Prerequisite = Pre-algebra or equivalent

In Algebra students will really begin to discover some of the exciting things math can allow them to do. Students will begin using all the arithmetic skills they've been developing over the past few years to begin solving problems that

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would otherwise seem impossible. Algebra helps students develop problem-solving strategies and skills, and the ability to recognize, express and work with mathematical relationships.

In this class we'll learn about:

- Solving equations & inequalities
- Working with units
- Linear equations & graphs
- Forms of linear equations
- Systems of equations
- Inequalities (systems & graphs)
- Functions
- Sequences
- Absolute value & piecewise functions
- Exponents & radicals
- Exponential growth & decay
- Quadratics: Multiplying & factoring
- Quadratic functions & equations

The two class meetings each week will be supplemented with ungraded out-of-class practice assignments. These assignments will be done online via Khan Academy. The out-of-class practice is important to student success, and although it is ungraded, the successful completion of it is required, and an essential part of the students' learning process.

Students who have taken this class will know how to solve problems!

AND THE ANSWER IS...PERSUASIVE ESSAY, CRITICAL THINKING AND DEBATE (Josh) (11+)

Finance, Social Studies, Literacy, Public Speaking

Suppose you have a direct line to the governor and one billion dollars to cut carbon emissions by 25% over the year, what do you do first? In this class, students will be placed in hypothetical situations to tackle real world issues. Every few weeks a new issue will be presented along with new parameters to work within. Sometimes throwing money at a problem might solve it, other times it might be a bit more complicated. Utilizing a variety of strategies and ideas, students will plan and present their individual answers to complicated problems. Because sometimes, if you want something done right, you have to do it yourself!

ART OF DIVERSITY (Kimber) (8+) *Art, Art History, Current Events, Diversity- Race, Gender And Equality Issues*

In this unique, timely and powerful class, we will look at the art and the artists who create pieces that highlight diversity and inclusion. We will explore amazing pieces that are intentionally created to open our eyes- and hearts, and allow us to visualize, learn, and understand the breadth of differences in all types of people, from all walks of life, and from all cultures. We will look at cutting edge contemporary artists who are using their creativity as a powerful means for empowering difference, dismantling oppression, and building more sustainable futures. In addition to giving us different perspectives, we will also explore art that is used as activism, to express and educate

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people about diversity of all forms- including race, gender and belief systems. Along with discussions of current events, students will then create their own expressive pieces that highlight diversity or support issues like Black Lives Matter, LGBTQ+ rights, and other current inequity concerns; Students will delve into new ways to think- and use their incredible fresh imaginations to find ways to highlight and embrace differences, inform, visually present information and ideas, create beautiful art- and help protect and defend everyone's rights. Through a variety of mediums, including spray paint, acrylics and oil pastels, other cool art projects will be inspired by the style or technique of the many phenomenal and fresh artists that will be featured. Creative adventures and exciting times ahead!

ASTOUNDING AFRICA: GEOGRAPHY, CULTURE AND ART (Kimber) (8+) *Geography, History, Culture, Art*

Did you know that there are over 50 distinct countries and nations in Africa? One continent, so many amazing worlds! How many can you name? Through exciting stories, fun folk tales, awesome art and engaging activities, students will be introduced to the rich culture, history, people and diversity of the many unique and fascinating countries in Africa. While traveling across the African continent, we will, of course, visit the more commonly known countries, like Morocco, Egypt, Nigeria, Kenya, and South Africa, and then... really dive into the geography and culture of the many other different countries. We will explore the diverse habitats, animals, art, music, dance and foods from each distinct area. We will experience- see, hear, touch and yes, even taste, many aspects of Africa. And... we will connect to the rich and colorful heritage of different African countries through a variety of traditional African crafts. Awesome African projects include Adinkra prints, Ndebele dolls and houses, Kente weavings, Moroccan mosaics, African ancestor animal masks, folk art toys, safari sculptures, tribal jewelry and individual Country Research Projects and Presentations. Africa is totally AMAZING!

AUTHORS AS MENTORS (Jessie) (11+)

ONLINE ONLY

"Sharing picture books with children leads to amazing conversations. In the best picture books there is a gap between the pictures and the words, a gap that is filled by the child's imagination." - **Anthony Browne**

There is a perception that picture books are only for the young. Yet, many authors create picture books for older readers. Their message offers different levels of understanding with a more sophisticated message. Complex picture fiction also deals with sensitive topics, such as bereavement, self-esteem, identity and conflict. Throughout this semester we will be taking an in depth look at some amazing Authors and digging deep into their literary style.

BEYOND EXPLORATION: THE HISTORY OF CONQUEST AND COLONIZATION (Kimber) (8+)

History, Social Studies, Geography, Art

A long time ago...many brave explorers set off to discover wild new worlds. They had daring adventures, developed new trade routes, discovered new riches, and met new people. But there's so much more to their stories. Some of it very good, some of it very bad. Starting with the Viking's, up to England's colonization, we will dive into the early days of North America's "discovery". We will explore how, during the 15th century, some European explorers set off to sail the Atlantic Ocean west in search of new routes to China and the East, and precious metals, jewels and spices. In the process though, they "discovered" an entirely New World: North and South America, plus many other lands. Many other explorers sailed southward along the African coast, stopping along the way. Discovery and wonder. Expansion and plunder. The whole world changed. In this Beyond Exploration class, we will look at the accounts of

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many of these explorations- and the explorers. And then... we will delve into what happened next in history... and the aftereffects. India, Africa, South America... so many places around the world were claimed. Students will separate fact from fiction, discover new stories and perspectives in history, and discuss important questions like... Where did colonization take place in the world- and by whom? What were the reasons? What happened to the original people? What happened when there was subjugation of one country by another? How did these "takeovers" lead to political, cultural, economic, and social changes? How were these changes different in different countries? How are these effects still felt? And relevant today... How are modern day thoughts and prejudices still influenced by past history? Beyond expansion, colonization and impact, we will also examine what we do, have, and even eat today, that is a direct result of the original exploration adventures. Using maps, timelines, interesting stories, art and fun projects, we will be history detectives, and explorers ourselves, of this fascinating part of our human history.

BIG-TIMERS: COMEDY AND KARAOKE (Nathan) (5+) *Risk Taking, Confidence Building*

Do you have a hidden talent? Have you ever made a whole room of people laugh and looked around and thought "Wow! I did that?!" We will be performing skits, comedy routines, and a variety of other performances that will blow our audiences out of the water or have them falling off of their chairs in laughter! Be ready to join us at the end of the year for our amazing, blow you out of the water Talent Show!

BOOK CIRCLE (Trista) (11+) *Literature*

Description of this class is on it's way! Please check back soon.

BOOK EXPLORERS: THE WAR THAT SAVED MY LIFE (Liz) (9+) *Literature, History, Writing*

What if an event that seemed to be world ending actually opened up the world? In this tale a young girl, Ana, who lives in England during World War II learns she will be sent to the countryside to escape the bombs. But Ana has also never been out of her house, due to an abusive mother and a physical disability. But the open countryside is just what she needs to free herself and realize she is stronger than she ever thought. Students will read chapters each week and then come to class for discussions, review and a deeper dive into the history of the time.

BOTANY AND MYCOLOGY (Linda) (8+) *Science*

We all understand the importance of plants in our life. We eat them, build our homes with them, and breathe the oxygen they provide. But the importance of fungus is often overlooked and cannot be over emphasized. Besides their vital roles in the ecosystem as decomposers and in symbiotic relationships, they also provide us with beer, wine, bread, and medicine. They break down pollutants and act as natural pesticides. Nobody even knows how many fungi there are in the world but we have documented 1.5 species and continue to discover about 1500 new ones a year. This class is an investigation into the incredible diversity of the plant and fungi kingdoms, how they function and adapt, and why it is important that we understand and protect them.

CHESS BOSS (Josh) (9+) *Strategy & Critical Analysis*

Played by everyone from nobility to peasants for over a thousand years, chess is a game of strategy with a fascinating history. In this class, students will hone in on the more advanced nuances of the game. We'll examine various opening strategies, as well as powerful end game moves. We'll study board control and piece management. Chess is a game with many layers and endless ways to improve, always giving us something to work on while having a lot of fun!

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CHIE'S KITCHEN: A SPRINKLE AND A DASH (Chie) (5-7) *Science, Cooking*

Yummy cooking that you can do on your own safely! Make dinner for the family! Pack your own lunch! Contribute in the kitchen mealtime prep and I promise it will help you love more foods!!

CREATIVITY WORKSHOP (Chie) (5+) *Art*

If you have a string, two buckets, 6 tennis balls, and a hook, what can you make? Let's find out together!!!! In this open structure class, creative problem solving and artistic expression will be at the center of each class helping young minds and hands develop the skills and confidence to boldly make their vision a reality!

DAVID SEDARIS, VIRGINIA WOOLF, AND GEORGE ORWELL'S EXPOSITORY WRITER'S WORKSHOP (Jessie) (11+)

Writing

In this workshop, students will learn the basic (and advanced) formula for a 5 paragraph Nonfiction essay and practice and practice until it becomes rote. They will be asked to continually persevere through writer's block and dig deep in the elaboration (commentary) portions of their paragraphs. The main goals are to establish cohesion and expand their elements of writing vocabulary, while developing their writing style and voice. By reading portions of essays by some of our writing heroes, students will be inspired to take their written expression to a whole new level.

DEEP DIVERS MATH (Joe) (9+) *Math*

IN-PERSON & ONLINE / BY RECOMMENDATION ONLY

Prerequisite = Math Mavericks or equivalent

This class was originally designed specifically for upper-elementary students who want to make sure they're 100% complete on all grade-appropriate educational standards. This past year it began to expand beyond that original role to include middle school and advanced elementary students who want to hone or practice essential skills). Beginning in the Fall 2021 semester, that role will be formalized and extended to accommodate students who are honing not only arithmetic skills but more advanced skills as well (pre-algebra, algebra, geometry) - so it will be a truly multi-level learning environment which will allow younger students to work independently at their own pace, but also glimpse more advanced topics that are being encountered by older students. This will also give students in more advanced classes an opportunity to practice and get extra support in a classroom setting, for instance, Algebra students can supplement that class with a couple extra hours of Deep Divers to both practice fundamental skills and get help with new concepts..

This is an expansion to the Deep Divers role, the class will still be generally focused on upper-elementary topics (basic arithmetic skills, with special emphasis on multi-digit multiplication, long division, fractions and decimals. Students are introduced to exponents, percentages, roots, and other upper-elementary topics), but in-class individual practice time will be more wide-ranging.

Students can choose how many days per week they want to enroll for. Students who are only taking Deep Divers might want to take it three or four times per week, students who are taking Pre-algebra or Algebra, might want to supplement those classes with one or two extra sessions of Deep Divers.

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DESIGN STUDIO (Chie) (5+)

Description of this class is on it's way! Please check back soon.

EARTH AVENGERS AND PLANET PROTECTORS (Kimber) (5-7)

Description of this class is on it's way! Please check back soon.

THE ELEMENTS GAME (Joe) (8+) *Science*

IN-PERSON & ONLINE

This class explores the periodic table, its history, its groupings, periods, and blocks, atomic structure, and the characteristics of individual chemical elements. We do this through a board game that involves matching the chemical elements with their symbols, atomic numbers and position on the periodic table, and then answering questions about their history, characteristics, and practical uses. It's a lot of fun! Students are encouraged to do follow-up research on topics that specifically interest them. This game can be played in the classroom, or online, so students can practice at home, and it is readily compatible with a remote learning environment if need be.

Students who have taken this class will understand what atoms, elements and compounds are, what the periodic table is, and be familiar with most - if not all - 118 currently identified chemical elements. Plus, they'll know the answer to a recent Who Wants to be a Millionaire? million dollar question.

THE EARTH'S CHANGING CLIMATE (Linda) (8+) *Science*

IN-PERSON (8+) & ONLINE (11+)

The vast majority of the scientific community agrees that global climate change is largely caused by human activity and severe consequences to the planet and all of the species sharing it are imminent without an immediate change in our behavior. While most people believe that climate change is a threat, too many don't understand the full impact and what they could be doing to take action to prevent, and even reverse it. The goals of this class are to build awareness, analyze real data, and inspire informed action. Students will learn what climate is, how it affects the atmosphere, the oceans and its impact on life in every corner of the planet. We will use models, hands-on experiments, and literature to enrich our understanding of the problem and then discover ways in which we can be an active part of the solution.

ENGINEERS AND ARCHITECTS: DESIGN CHALLENGES (Linda) (8+) *Science, Art*

This is a project-based STEM class. Sometimes kids will be given a timed, open-ended challenge with a limited set of materials. They will work to design, experiment, and solve the problem. Other times they are given longer challenges that also incorporate art. Students will explore the types of forces at work with each type of structure, which shapes are the most stable and the strongest, and the properties of different types of materials to choose from. We will use the design/engineering process to create innovative solutions to the challenges, and learn from mistakes in order to improve upon our ideas.

GAME ON: SPORTS & GAMES (Rashad) (8+)

Description of this class is on it's way! Please check back soon.

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GOJU RYU KARATE (Sensei Mallica) (5+) *Physical Education*

Discipline, attentiveness, and fun are our goals! Your child will practice exercises that will develop physical strength, agility, and mental capacity – through running, jumping, and playing. Karate promotes healthy physical and mental activities for your child, and is fun because they are learning through play and discipline.

GOOD GAME! SPORTSMANSHIP (Nathan) (5-7) *Physical Education, Teamwork*

Sometimes kids just need a break to play some good old fashioned games, toss the ball around, and get dirty! We will play everything from board games to baseball and kickball in this super fun sportsmanship and skills class! We will be focused on social emotional growth and our ability to work as a team. There will be class challenges, team building activities, and super fun games that build leadership skills. Students can expect to leave this class with strategies for problem solving, managing emotions, and sportsmanship... all while having a BLAST!

GRAMMAR MATTERS! (Zeinab) (8-10) *English, Grammar*

In this class, we will practice the building blocks of writing: grammar! From using complete sentences and apostrophes, capitalizing, singular and plural nouns/pronouns, to practicing parts of speech, using commas in a series, differentiating past and present verb tenses, avoiding double negatives, and using singular/plural possessives.

GRAPHIC NOVELS (Liz) (11+) *Writing, Art, Literature*

Fun with graphic novels! For students who are interested in the combination of creative writing and visual art, this class will engage them in the process of brainstorming and creating their own graphic novel. Graphic novels: a book-length comic; a story told with a combination of graphics (images) and writing; sequential visual art with text in a series of panels. We will take a look at graphic novel material to discuss the dynamics of the genre, style, elements, and format. Students who have already taken a semester of graphic novel writing and want to continue their creations and advance their skills can also join the class.

HIKER'S CLUB ADVENTURERS (Nathan & Josh) (11+) *Science, Physical Education, History***OUTDOOR LEARNING DAY ONLY**

Description of this class is on it's way! Please check back soon.

HIKER'S CLUB EXPLORERS (Nathan & Zeinab) (8-10) *Science, Physical Education, History***OUTDOOR LEARNING DAY ONLY**

Build strength, endurance, and general knowledge of the natural southern California landscape by conquering challenging hikes and diving into "in the field" lessons that present themselves to us throughout the day. Students will learn about the history of the land both geologically and the human presence from the first people to call this area home to the million dollar homes that dot the mountainsides today.

HOME SWEET SOLAR SYSTEM AND GALAXY ART (Kimber) (5-7) *Science, Art*

Are you ready to take off? Students in this "out of this world" science and art exploration class will launch into the ultimate adventure, using all of their senses, and journey to each planet, through our solar system- and beyond! Through exciting, hands-on creative art projects and activities, students will discover interesting planetary information, discuss recent discoveries and delve into the past, present and future of space exploration. Now we

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ask... what would it be like to join the ranks of space pioneers who persevere to push the boundaries of human exploration? What would it be like to travel to a far away planet and live in the cosmos? Aspiring explorers will put themselves in the roles of trainees preparing to become the new generation of astronauts getting ready to live and work in space. Now imagine glowing abstract nebula space clouds, sparkling star clusters and fluorescent spiral galaxies. Images of space and galaxies can be truly breathtaking and mysterious, and will easily inspire students to create their own glittery planetary masterpieces. And of course, this fantastic class wouldn't be complete without a culminating blacklight art show. Projects include launching "taternauts", and creating planet mobiles, nebula jars, glow-in-the-dark galaxy paintings, alien drawings, and more. To the stars and beyond!

INSPIRED WRITERS (Zeinab) (8-10) *Writing*

Our writers will cultivate their own creative writing and explore the basic writing skills in genres such as poetry, short fiction, and play-writing -- wherever their imagination takes them!

INTRO TO PHYSICS (Linda) (11+) *Science, Math***IN-PERSON & ONLINE**

In this introduction to physics we will explore motion through hands-on experimentation including catapults, racing hot wheels, marble runs, egg drops, and so much more. Students will also learn the basics of a well-designed experiment, how to measure and record data, and how to analyze the data with math and basic vectors. Interacting with materials in the real world demonstrates the relevance of science and math in our everyday life. To emphasize the importance of scientific thinking we will also investigate a diverse selection of physicists throughout history and how their contributions have changed the world.

JOURNEY THROUGH WORLD MYTHS (Liz) (8+) *Literature, Writing***IN-PERSON & ONLINE**

Perseus, Luke Skywalker, Gilgamesh, and Katniss Everdeen. These are all heroes who left their familiar world to find adventure, but more importantly to find themselves. When we read myths we can hear the generations speaking to us. In this class we will study the myths from around the world, in particular myths of heroes and heroines. Students will map how these stories connect to each other and they connect to themselves.

JOURNEYS: A GLOBAL PERSPECTIVE OF JUSTICE - OUR CRIMINAL JUSTICE SYSTEM (Liz) (10-11)*Writing, Social Studies*

This semester Journeys, along with Quest and Visionaries, will be investigating what justice means with our journey being one that will take us around the world. Students will inspect what justice looks like around the world by delving deep into how other countries house their prisoners and how they deal with recidivism. We will listen to experts in the field, read first hand accounts from prisoners, go on trips into the community so that we can begin to formulate what a more humane justice system looks like. At the end of the semester students will become experts in a country and build a scale model of a typical prison cell as well as as a group build a life size model of a US solitary confinement cell so we can begin to visualize what justice looks like in America and abroad.

THE LEADERS AMONG US (Zeinab) (5+)

How do we work together? In a team, what do we individually and collectively do well, and what can we always

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improve on? What makes a good leader? In this class, we will have fun learning and exploring how to be the best teammates, and how leadership can be fluid. Together, we will play games that inspire critical thinking and require constructive debriefing for intentional and mindful growth. Most importantly, we will acquire lifelong skills surrounding leadership, team-building, trust, community, and support -- which are applicable every day and everywhere.

LITERACY DETECTIVES (Jessie) (7-9) *Literacy*

What do great readers and writers do? We look for patterns and we crack codes! We hunt for clues and we make meaning! Across our two-day per week format, students will have the opportunity to grow their love of stories, engage with text as readers and writers, and explore the world of literacy with games, songs and crafty projects. Inquiry, observation and investigation will be our mission as we build print awareness and playfully demystify written language. It's elementary, my dear REALMers, when our strategy sleuths are on the case!

Throughout this semester, readers will be working on their comprehension skills while using close reading to solve some fun and engaging mysteries. We will focus on Making Inferences, Asking Questions, Visualizing Text, Making Predictions, and Summarizing Information.

LITERARY CLASSICS THROUGH TIME (Josh) (11+) *Literacy***FOR ADVANCED INDEPENDENT READERS**

Join me as we explore some fantastic and extremely thought-provoking literary masterpieces. Ray Bradbury's Fahrenheit 451, Douglas Adams' Hitchhikers Guide to the Galaxy, and William Golding's Lord of the Flies. As we read these books we will engage in in-depth classroom discussions and analysis, while also cultivating a variety of creative and mind-bending projects! Calling all my avid readers for a semester of classics!

MAGIC THE GATHERING (Josh) (11+) *Literacy, Probability, Strategy*

Developed by the same company that brought you Dungeons & Dragons, this competitive and highly strategic card game will put your skills to the test! Through probability, psychological tricks, and careful strategy, students will be taught this fantastic game. Whether you're a newcomer or a pro, you will learn and develop your skills in both standard games and drafting until you're tournament ready!

MARINE BIOLOGY: THE CORAL REEF (Linda) (5-7) *Science, Art*

What is an ecosystem and why is the coral reef ecosystem special? Besides being beautiful, coral reefs protect coastlines, and provide jobs, food, and medicine. They are home to 25 percent of the world's marine species. And they are in danger. We will use games and videos to discover more about ecology, anatomy, life cycles, food webs and symbiotic interactions. Students will then build a cooperative 3D model of a coral reef incorporating everyone's individual art and knowledge.

MATH MAVERICKS (Semester 1 of 2) (Joe) (7-9) *Math*

Prerequisite = Multiplication to 10x10

Math Mavericks focuses on 3rd and 4th grade math topics. In this class students will be honing their basic arithmetic skills. We'll cover the basics of written calculation: addition (stacked), subtraction (stacked with borrowing and other

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strategies), multiplication (the vertical algorithm and alternatives), and long division. We'll be introduced to fractions and decimals and we'll explore other mid-elementary concepts.

This is a two-semester multi-level class. That means that it begins in the Fall semester and continues the second semester, picking up from where we leave off at the end of first semester. Because it covers two conventional school years of material, most students will want to take this class twice. The advantage to this type of approach is that the material is presented during the first year and then reinforced the second year. It also gives students an opportunity to experience the class as both a novice, learning with more advanced students, and as a mentor, learning with and helping less advanced students. The general outline of the class is that 3rd grade topics are covered first semester and 4th grade topics are covered second semester.

We'll cover a certain amount of material in class each week, however students are welcome to work at their own pace. Students who want to work ahead will have access to advanced practice sheets, and students who want to review or work at a slower pace can do that as well. I'm gradually building a library of explanatory videos, so students working on non-current practice materials will often have access to video examples and guidance.

Students who have taken this class will believe that math can be fun!

MENTAL MATH 1 (Joe) (6-8) *Math, Problem Solving*

Prerequisite = Some experience with counting, addition and subtraction

Adding, Subtracting, Doubling, Tripling, Quadrupling, and beginning Multiplication

This class will focus on developing our analytical thinking through mental computation and memorization. We'll focus primarily on arithmetical operations - striving to really get a grip on adding (one and two-digit), subtraction (one and two-digit), and beginning multiplication techniques. We'll practice holding numbers in our heads while we do two-step problems. We'll learn to parse problems and look for patterns to help us derive manageable methods of solution.

Students who have taken this class will be able to think better!

MENTAL MATH 2 (Joe) (8-10) *Math, Problem Solving*

BY RECOMMENDATION ONLY

Prerequisite = multiplication to 12×12

Beginning to Intermediate Multiplication - plus division and advanced Addition and Subtraction.

This class focuses on developing our analytical thinking through mental computation and memorization. We'll focus primarily on arithmetical operations - building on skills developed in Mental Math 1. We'll learn methods, tactics, and techniques for multiplication, and also learn about Squares, Factors, Division, and Fractions. We'll practice holding numbers in our heads while we do two, three and four-step problems. We'll learn to parse problems and look for patterns to help us derive algorithmic methods of solution.

Students who have taken this class will be able to think better!

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MENTAL MATH 3 (Joe) (11+) *Math***BY RECOMMENDATION ONLY**

Prerequisite = Mental Math 2, or equivalent

This one's for the all-stars. Students who have been developing their mental math skills for a few years will further develop their abilities in two and three digit multiplication and division. We'll also be working with fractions and percentages, and how to develop shortcuts and tricks of our own. We'll practice squaring numbers up to 100, and see if we can find ways to derive square roots. Each week we'll look for patterns and relationships within number sequences, and consider what insights those patterns can offer.

Students who have taken this class will be able to think better!

NINJAS, SAMURAI, & LEGENDS OF THE EAST (Josh) (8+) *History, Geography*

Join me on an adventure through history as we study the most fascinating stories to come from East Asia! The conquest of the Mongolian emperor Genghis Khan, Bushido code and the Japanese Samurai, Xiaolin monks and the origins of Chinese Kung-Fu, and more! From ancient poetry to music to even weapons, so many incredible stories & facts await us. History has its eyes on you!

NOVEL-TEA: THE BOOK THIEF (Liz) (11+) *Literature, History, Writing*

Words have power to heal and the power to harm. In the beautiful novel, *The Book Thief* we will explore how words became both places of solace and instruments of hate. Travel back in time to World War II with the most unlikely of narrators (its Death) where we will follow Liesel, a young German girl, as she learns to stand up for what she believes in. Each week students will read portions of the book on their own and then come together for discussion and further investigation into this time period. We will create art, read historical accounts, and delve deep into the story.

OUTDOOR CRAFTY SCIENCE FUN (Nathan) (5-7)

Description of this class is on it's way! Please check back soon.

PARTY PANEL AND GOOD DEED DELEGATES: A REALM STUDENT COUNCIL (Nathan) (8+) *Citizenship*

Students will work to plan a variety of events and fundraisers while working with teachers, parents, and students from outside of the class to bring the Realm together and practice skills that will benefit them in future community settings! Our class will elect students for specific positions and committees where students will have an opportunity to bring their individual strengths into group endeavors and become witness to the power of teamwork and communication.

PHASCINATING & PHUNKY PHILOSOPHY (Joe) (9+) *Philosophy*

What do you know? How do you know it? How do you know what you know? Figuring stuff like that out can be kinda tricky - you know? The branch of philosophy that deals with questions like this is called Epistemology, the study of knowledge - which, these days when it can be so hard to know who to trust and what to believe, is an ever more important topic. In this class, we'll begin there and see where it takes us.

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PIRANHA TANK: FOR DARING ENTREPRENEURS (Josh) (11+) *Finance, Public Speaking, Mathematics*

IN-PERSON & ONLINE

Sure sure, Shark Tank is great, but at The REALM you have the opportunity to join the Piranha Tank! Students will alternate between being piranhas, (potential investors) inventors creating products, and those that pitch the products, trying to convince a piranha to invest! Students will learn about material costs, business evaluations, markups, loans, practice public speaking and "selling" skills, as well as create a variety of awesome products & businesses! Guest piranhas will periodically be welcome within the tank to offer their expertise in a variety of fields. So what are you waiting for?! Get in the piranha tank and see if you can come out alive.

POETRY RANGERS (Zeinab) (8-10) *Writing, English, Literature*

IN-PERSON & ONLINE

Discover the awesome world of poetry! Poetry is a fun (yes, it can be fun!) and meaningful way to explore ideas, emotions, and perceptions about life and the world. Students will write their own poems with the opportunity to engage in unique poetry prompts, styles, and formats, while learning how to use poetic devices and discussing various example poems.

PRE-ALGEBRA (Semester 1 of 2) (Joe) (10+) *Math*

BY RECOMMENDATION ONLY

Prerequisite = Deep Divers Math or equivalent

In Pre-Algebra, students who have shown expertise in multiplication and division and have developed a degree of comfort in working with fractions and decimals, will have an opportunity to acquire a thorough understanding, familiarity and expertise in advanced arithmetical operations.

Students will practice using fractions, decimals and percentages. Students will explore concepts involving exponents and roots, factorization, primes, divisors, variables, negative numbers, equations, inequalities, ratios and proportions, unit conversions, and basic geometry (angles, perimeter, area, triangles, and quadrilaterals). New topics will be introduced each week and will be supplemented and reinforced through practice and gameplay. This class will continue during the second semester.

The two class meetings each week will be supplemented with ungraded out-of-class practice assignments. These assignments will be done online via Khan Academy. The out-of-class practice is important to student success, and although it is ungraded, the successful completion of it is required, and an essential part of the students' learning process.

Following the successful completion of this class, students will be prepared to begin Algebra 1.

Pre-algebra could also be appropriate for students who wish to supplement their Algebra or Geometry class with foundational review.

Students who have taken this class will have a better understanding of how math works!

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PSYCHOLOGY: EXPLORING THE HUMAN MIND (Linda) (8+) *Science*

Psychology is the science of behavior and how the brain works. In this class we will explore emotions, perception, memory, learning, motivation, personality, the idea of the self, and distress. We will look at how these ideas were approached historically and the views of various influential psychologists. Through videos, games, research, journaling, and discussions we will deepen our understanding of human behavior, internal influences, and the external forces that shape who we are.

QUEST: JUSTICE EXAMINED; JUSTICE RE ENVISIONED - OUR CRIMINAL JUSTICE SYSTEM (Josh) (12+) *Social Studies*

This semester our focus in Quest is all about "justice." We all have our own idea of what justice is and what it means to us, but how should we apply it to society? Throughout this class we will be taking a very close look at how our criminal justice system really functions, and ask ourselves if this is how we want it to function. In what way does our system serve our ideas, and in what way could it be improved upon? These questions will be explored in depth on a variety of excursions throughout the semester to both learn more about our system, and to facilitate conversations and actions around improving it.

RAINFOREST EXPLORERS CLUB (Kimber) (5-7) *Rainforest Habitat-Ecology, Animals, Art*

Through a variety of exciting stories, games, art projects and hands-on activities, students in this fun class will explore the many wonders of the remarkable rainforests. Focusing primarily on the largest tropical rainforest in the world, we will head into the depths of the Amazon and discover amazing facts about the extraordinary plants, wildlife and indigenous people there! Imagine rich, lush tropical forests teeming with thousands of animals, including exotic birds, monkeys and frogs. Can you picture a paradise where waterfalls cascade over cliffs, and vines dangle from the tallest canopy trees? There are so many weird, wild and wonderful types of living creatures in the rainforest that if you stood in one place and turned around in a circle, you would see hundreds of different species. We will also delve into the fragility of these areas, what's happening today and why it is especially important to protect these vital habitats. Students will then craft unique artistic creations including a jungle paradise installation, a terrarium project, a quirky tropical bird with lots of bright feathers, brilliant butterfly ornaments, a wild animal mask and lots of other Amazing Amazon Art!

RAP BATTLES AND LYRICISTS (Josh) (10+) *Music, Literacy*

Calling music lovers of all kinds! This class will explore a variety of musical genres and legendary songs, analyzing them from both a musical and lyrical perspective. Not only that, students will have the opportunity to write their own songs and raps and engage in some epic ground shaking rap battles. Whether you're a rapper, a writer, or just a fan of good music, this class has something for you!

REALM CORRESPONDENTS (Zeinab) (8-10) *Writing*

Whether to a friend, a family member, a pen pal, or a professional, in this class we will practice the art of letter writing. How to open, how to organize all we have to say, and how to close.

REALM FOOD TRUCK: HANDLER AND HAIRNETS (Nathan) (5+) *Math, Home Economics*

Welcome to the tastiest class on the entire Realm schedule! We are going to discover and indulge in our own inner chefs! Students will practice cooking using recipes from all over the world and all throughout the class! Does your

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grandma make the best rhubarb pie this side of the Mississippi?? Bring in the recipe and we'll make it happen! We will also examine and practice the roles that employees play in the operation of a real restaurant. Our class will have an opportunity to practice performing all of the duties, from bussers to managers, chefs to servers, and more! Our semester will culminate with the students catering the end of the semester Open House!

REALM GLEE CLUB (Shirley) (5+) *Choir*

Come on in and experience the world of Glee club. This is a place where talented students can find strength and acceptance in their voice. Every week we will be singing songs from different artists we choose in class. It will relate to a weekly life lesson and how you feel in that moment. For example, if you feel like having a diva moment you can sing a song from "Wicked" or if you need a little faith we can sing "Don't stop Believing". I believe that singing is a way to express yourself and that is what I want for these kids to experience.

REALM MUSICAL THEATER PRESENTS: LITTLE SHOP OF HORRORS (Josh & Shirley) (9+) *Musical Theater*

Just a totally ordinary musical about a botanist who falls in love with a plant that eats people. What? It's still a better love story than Twilight. Whether you're a seasoned theater veteran or haven't ever tried it before, this horror themed comedy musical is guaranteed to be an excellent time!

ROCK CLIMBING (Trista) (7+) *Rock Climbing, Physical Education*

Description of this class is on it's way! Please check back soon.

SANTA MONICA PATHFINDERS (Nathan) (5-7) *Geography*

Never Eat Soggy Waffles! This group of adventurers will head out into the field on some days to follow and create maps of their local community. Other days we will be in the classroom using what we've discovered to create evidence of our new found skills. They will have an opportunity to map out and locate specific landmarks and other locations including addresses for homes and businesses using compasses and maps. We will be doing scavenger hunts and other games and lessons that will help us understand our place in our city, state, country, continent, and world! Students will also meet a space alien and teach this galactic friend about exactly where we are from the name of the planet to the address on their street!

SCARY STORIES AND IMAGINATIVE TALES (Zeinab) (8+)

OUTDOOR LEARNERS & IN-PERSON

Whether inspired by our surroundings, our dreams, our fantasies, or our pure imagination, there is a special magic in the scary or fantastical stories we read and tell. In this class, we will write and share stories of our own choosing, to share with each other or with select readers. Stories can be scary, spooky, magical, otherworldly... you write it, we'll read it! Various themes, inspirations, and guidelines may be offered for inspiration. Constructive feedback will be encouraged in the pursuit of personal writing and editing growth.

SCRIPT WRITERS (Trista) (11+) *Writing, English*

In this class students will learn the basics of script writing. This includes specific tools and devices related to structure and formatting, as well as the development of ideas (brainstorming, character profiles, and plot charts.) We will take a look at sample scripts to gain an understanding of storyline, style, and format, while students work on writing their

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own script. Students who have already taken this class will have the opportunity to take their script writing to the next level. They will delve deeper into the genre, through the continuation of their already existing script or the creation of a new one.

SCULPTURAL ASSEMBLAGE, MOSAICS AND MULTI-LAYERED ART (Kimber) (5+) *Art*

Students in this exciting, edgy class will explore the wonderful world of mosaics, multi-media collage and 3-D assemblage sculpture and create super cool, unique art pieces. After a ceremonial plate smashing, students will experiment with mosaic design and placement as they design colorful glowing glass and vibrant tile projects in a fun new way. Students will also create expressive sculptural and layering artwork using different surfaces and layers of loveliness, including glass gems, ceramics, metals, shells, beads, baubles and other curated materials. As we experiment and play with a variety of piecework techniques, we will build projects like bejeweled bug sun catchers, assemblage portraits, body part art, masks, dolls and robots, mosaic planters and a community mosaic wall piece. Pure joyful art in process!

SERVICE - MEANINGFUL WORLD PARTICIPATION (Nathan) (8+) *Citizenship*

In this class we will focus on being active and responsible community members and while also managing our own space. We will reach out to our local fire station, Heal the Bay, local charities and community groups, and other others whose focus is on improving our local human habitat. Students will also learn how to be aware of and appreciate their own settings including their personal items, cubbies, classrooms, and neighborhoods. How do we take responsibility for our space, thank those who are serving us, and actively participate with our neighbors and friends to make the world a better place? Let's find out!

SPACE CADETS: THE BRILLIANT KIND (Nathan) (5-10) *Science*

Are you ready to blast off and discover what lies outside of the Earth's atmosphere? In this class we will explore everything from the Solar System to quasars while we trek through both inner and outer space! Students will learn important facts about planets, distant galaxies, real space missions, the realities of space travel, how planets and stars are born, and what it takes to be an astronaut! Can we actually find another planet just like Earth? Do we need one or can we live on Mars? Taking care of the Earth is plan A. Who's going to be ready for plan B? We are!!!

TEEN VISIONARIES (Liz) (8+) *History, Writing*

Teens can sometimes feel powerless but at the REALM we know that teens and kids are powerful. Throughout history they have used this power to make big changes. In this class we will study children and teens who have made ripples, both big and small. Jumping into our time machines we will zoom to Germany in the 1940s to learn about Sophie Scholl, member of the White Rose Resistance. We will march with young people during the Children's March in Birmingham. And then we will take a look at our world today to young people who are using social media to connect around the world on issues of justice and equality. We will investigate the circumstances that drove them to stand up and use them as examples as we stand up for what we believe in.

THIS I BELIEVE: ESSAYS (Liz) (8+) *Writing, History*

What do you believe in? What do your beliefs tell the world about you? In this world we will look at beliefs big and small. From your favorite ice cream flavor to what makes a person honorable we will examine the human condition

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through this lens. Using the classic radio show This I believe as a jumping off point we will read the words of well known and as well as everyday people as they delve into the lessons they have learned and the truths they have uncovered. We will also read speeches, letters, and other first hand accounts to give us a deeper insight into what it means to stand up for something. Students will work on a journal that contains these writings and each week delve into the bigger questions themselves to write what they believe in.

THIS IS YOU'RE, AND THAT'S YOUR (Zeinab) (11+) *English, Grammar*

If we will never stop writing, reading, and speaking, it goes without saying that the grammar of both our written and spoken word will always matter (and have a significant impact) in our personal, academic, and professional lives. In this class, we will continue to practice grammar and proofreading exercises that will hone our writing and editing skills, be it subject-verb agreement, maintaining consistent verb tense, quotation marks in dialogue, proper use of conjunctions, and editing for fragments and run-on sentences.

TRASHION SHOW: TRASH TO TREASURE RUNWAY CLOTHING, JEWELRY, AND ACCESSORIES (Kimber) (8+)

Art, Fashion, Recycling and Sustainability

How cool is it to make avant-garde fashion from cast-offs or junk! Trashion, an awesome form of recycled wearable art, is a unique and fast developing medium in the art world, but even better... it's tons of fun, functional and fashionable, and good for the environment! Using wild imagination, and thrown-out, found and recycled materials, as well as clothing that has been thrifted, our creative fashion designers will create their own fantastic artistic masterpieces. These works of art, in the forms of jewelry, accessories and clothing, will then educate, astound and amaze us! As we re-imagine "green" fashion, we will look at many aspects of trash, focusing primarily on the amount of waste specific to clothing and fabric, from the manufacturing and purchase, all the way to the disposal. While we build and create, we will also demonstrate the benefits of thoughtful consumption, mindfulness and reinterpreting wealth and waste. Games, challenges and contests will spark imaginations... and competitive spirits. From functional day wear to art-couture costumes, we will then celebrate our inspired ideas and creative visions, promote sustainability... and parade our talents in a runway walk Trashion Show! Are you ready for the montages?

TRIVIAL PURSUIT & SUCH (Nathan) (8+) *Social Development, General Knowledge***OUTDOOR LEARNING DAYS ONLY**

For our 8-10 year olds, students in this class will have an opportunity to play a variety of games, participate in individual and team activities, all in a peaceful outdoor setting! Examples of these are Trivial Pursuit, Apples to Apples, chess, checkers, gin rummy, freeze tag, scavenger hunts, survival activities, and so much more! These will all take place at the blasting off point for each of our weekly hikes!

For our 11+ year olds, students will play board, card, and other brainstorming games in an outdoor setting. Examples of games are Trivial Pursuit, chess, checkers, gin rummy, and maybe even a little poker tutorial and tournament where we put all of our acorns on the table!

VISIONARIES: THE PATH OF JUSTICE - OUR CRIMINAL JUSTICE SYSTEM (Jessie) (8-9)

Throughout this semester, together with Quest and Journeys, we will be focused acutely on defining, visualizing and reimagining Justice. Visionaries will specifically focus on taking a look at how our justice system was formed. We will

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delve into the history of Justice in the US and follow the twisty turvy path that has led us to where we are today. Through a series of excursions, speakers, discussions and thought experiments we will begin to own the knowledge of how our Justice System was formed. For our culminating event, visionaries will create scenes, monologues and spoken word poetry that will help teach others about their profound discoveries.

VISUAL POETRY AND SMART ART (Kimber) (8+) *Literature, Art*

Who said that a well crafted story or a clever poem has to be laid out on paper? In what other ways can we capture a reader's attention and really have them listen- and see? How can we help someone really feel the impact and emotional pull of a poem? How can they hold, touch or move it with their hands? In this fun and unique class, we will explore different types of stories, narratives and poetry... and then, we will push the boundaries and move beyond the confines of the expected flat surface, explore other ways that words can be seen- and fully experienced, and then build word art in an exciting new way. As we create visual, audio and textural representations of our words, we will also dive into new forms of expression, like haptic, digital and video poetry. We will then pour our concrete poetry... into concrete, and build sentences with sculptural pieces. Other smart art includes magic mobiles, animated shorts, and a variety of other wordy art pieces and 3D delights.

WINDJAMMERS SAILING AND WATER ADVENTURES (Zeinab) (8+) *Sailing*

Our program emphasizes SAILING! Each student will be on the water the very first lesson, with the instructor alongside in a coach boat. Students will learn how to purposely capsize their boat, and then recover their boat, and bail the water out. This is consistently the most popular lesson in the program. Tacking (zigzagging left and right towards the direction of the wind), is the first sailing skill to learn. There are 5 steps to executing a good tack. When the students have learned to sail upwind, they learn how to sail downwind. What goes up, must come down. Gybing involves turning the boat left and right with the wind coming from behind.

In the beginning, students will be on the water 1 on 1 with the instructor. As the class progresses, more students, each in their boat, will sail. The "sailing pizza" will teach the students the different "points of sail". Don't sail into the anchovies! Students will learn how to, and be responsible for, rigging and de-rigging their boats. Learning knots, the names of the parts of a boat and rigging, and the names of the parts of a sail are just part of the fun.

We begin by sailing only in the finger in front of our dock. As the students progress, we sail in the basin, then in the main channel. When we can sail upwind across the main channel to the gas dock (where the store sells ice cream), and then downwind back to the dock, we have really accomplished something. Students learn to work together to make rigging and sailing easier. When the wind gets too high, we often take a tour of the marina using one of the coach boats. Our priorities are, in the following order: Safety, Fun, Education.

WONDERFUL WOMEN OF THE WORLD (Kimber) (8+) *Art, History, Diversity, Women's Empowerment*

Not all superheros wear capes! In this unique class, we will look at the fierce, empowering, and inspiring ladies, past and present, whose contributions in art, science, sports, politics, and beyond, have had a powerful impact that can still be felt today. We will look at fearless feminists from all walks of life, from explorers and activists, to social justice warriors, who have fought for equal representation and who constantly inspire girls and women everywhere. And... we will salute the lesser-known titans and unsung heroes, all of whom, without each one of their powerful contributions, our world wouldn't be what it is today! While we look at all of these heroines, we will also reflect on

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the history and milestones of these amazing women who were responsible for so many women's firsts. Through cool art projects, fun activities and interesting stories... I can't wait to celebrate all of these Wonderful Women of the World who have shifted our culture in significant ways!

WONDERMENTS, PUZZLERS AND CURIOSITIES (Kimber) (8+) *Critical Thinking, Logic, Art*

This fun class is designed to create a cool culture that tickles the curiosity and where asking questions and investigating are key. We will harness the power of inquiry as we dive into all manners of wonderments and questions. This is the perfect place to ask "why?". We will also jump into a puzzler's paradise with challenging logic games, escape room contests, brain teasers and riddles. We will ask questions like "what really happened?" and "is that really true?" as we explore history mysteries and conspiracy theories. In addition, we will play detective as we listen to and try to solve compelling "who dunnit" stories, including some "old school" classics from Sherlock Holmes and Agatha Christy's Hercule Poirot. This cerebral exercise class will stretch minds, spark inquisitiveness, strengthen critical thinking, help develop strategy and deductive reasoning skills- and foster a love for solving unusual problems. And of course, if we're bending the mind, we will need to bend the eyes as well... by redefining visual reality and creating a variety of optical illusion art pieces.

"All thinking begins with wondering" -Socrates

WOVEN WORDS (Jessie & Shirley) (5-7) *Literacy, Writing***ROOTS AND BRANCHES ONLY**

Wonderful words are everywhere- we speak them, we read them, we write them! This understanding empowers our young learners to move towards independence. This two-day per week class will give students the opportunity to put their new skills into practice with more literacy exploration stations and "just right" books. Students will build knowledge of letter sounds, sight words, concepts of print, word decoding, and story elements with read-alouds, poems, songs and games. We will grow our listening comprehension, conversation skills and our love for books by reading about characters who remind us of what it means to be human.

To support our study of *Self*, our youngest writers will learn to capture their fondest memories in pictures and words. Students will go from mark making to storytelling as they learn to think like authors who see life's everyday moments as reasons to pick up a pencil. Our youngest writers will explore the writing process: gathering ideas from our lives, getting our thoughts on the page, stretching our stories long and strong, making our writing readable and sharing our personal stories with the special people in our world. Word study sessions will encourage writers to use their brave spelling as we gain a command of sound patterns and sight words. We will grow our library while exploring the glorious connection between reading, writing and communicating.