

Please review the Spring 2022 Class Schedule for age ranges of individual classes.

3D DESIGN WITH TINKERCAD (Digital Dragon) (8-10) *Digital Design*

Learn the core skills of 3D design through TinkerCAD, a unique platform for developing 3D objects that can be used for printing, game design, or anything you can imagine. This course will introduce the fundamentals of modeling 3D objects, through fun and engaging projects. Students will explore the use of color, shape, and form to craft detailed objects and spaces.

A-Z SOCCER (Manuel) 10+) *Physical Education*

A-Z Soccer Academy classes are a Montessori-style of play similar to street soccer where kids learn through experience, problem solving, and active fun. Creativity and self expression are key parts of our classes. Our goal is to keep the kids moving while continuously building their soccer skills and confidence on the field.

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

BY RECOMMENDATION ONLY

Prerequisite = Geometry

In this class we'll focus on developing a strong understanding of, and ability to work with, high school level topics ranging from Geometry to Algebra 2, Trigonometry and Pre-calculus. 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.

ALGEBRA (Semester 2 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 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

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- 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!

ANCIENT CIVILIZATIONS (Kimber) (9+)

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

ART WITH THE GREATS: CLASSIC MASTERS TO CONTEMPORARY ARTISTS (Kimber) (5+)

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

AUTHORS AS MENTORS (Jessie) (11+) *Literacy, Writing*

"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. We will end with our own self-published book inspired by these amazing authors!

AUTOBIOGRAPHICAL WRITING (Liz) (8+) *Writing*

Getting to share about yourself and the things you love is a great thing. In this class students will create self portraits, abstract data drawing, write short journal entries, and build towards a longer autobiographical writing. Students will explore their past, interview each other about their futures, and see how their present is forming who they are today. All this will be collected together to create the story of themselves (so far).

THE BILL OF RIGHTS - A DEEP DIVE (Josh) (9+) *History, Social Studies, Law*

Undoubtedly James Madisons' greatest work, the first 10 amendments of the United States Constitution were first known as "The Bill of Rights." This important and fascinating document is the backbone of American society, and what makes us unique as a nation. In this class, students will explore each of these amendments, the history around them, and how they have been applied historically as well as how they impact society in the modern-day. We will also explore how the needs of society may have changed, and how they have not. If you are interested in history, human rights, or government, this is the class for you!

THE BIRTH OF A COUNTRY: AMERICA (Nathan) (7-10) *History, Social Studies*

Can you name the person that this country is named after? Is America only the soil under our feet? The past is filled with courage and sacrifice, decisions both good and bad, and a long list of impactful people and events that have

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carved out the country you see today! In this class we will investigate the native peoples, early explorers, colonies and expansion, and find out how the world we live in today was born.

BOOK EXPLORERS: NATION (Liz) (8+) *Literacy, Social Studies*

What makes a nation? Is it the land, the people, imaginary lines drawn on a map? If you had to start your own nation what would you do? In the book *Nation* by Terry Pratchett we explore a world torn apart by disease and natural disaster that is rebuilt by a young boy and girl. They work together to form a new nation and all that it would entail. As readers we will explore the themes of belief, fate, and ancestors. And as we move through the book. In addition to weekly assignments to review what we are reading we will also create our own nation. We will choose our environment, our government, our beliefs, and our customs to make the ideal place for us to live. We will read this book together in class.

THE BOOKS OF GEORGE ORWELL & OTHER FAMOUS WORKS (Josh) (12+) *Literature, Social Studies*

Continuing our exploration of thought-provoking classic literature, we will read a variety of books designed to get us thinking and questioning the world around us. In this class, we will engage in classroom discussions & debates about the stories, the characters, and the allegories within. In addition to that, students will be assigned a variety of creative and exciting projects related to each of the books they read. If you enjoy intriguing stories and love to read, look no further!

CALLING ALL ENTREPRENEURS: LEVERAGING DIGITAL TOOLS (Digital Dragon) (11+) *Digital Design, Business*

Students begin by learning about organizations and companies, how those companies built their product and their brand, and how they market themselves. Following these examples, they develop their own business idea; a lemonade stand, selling friendship bracelets, or a dog-walking business, for example. Students then put together a mission statement and a business plan. Finally, students learn how to use digital editing software programs to create a logo, explore the concept of branding and use other digital tools to develop their first business!

CELLS: LIFE'S BUILDING BLOCKS (Linda) (7-11) *Science*

Individually they are microscopic, yet they are the building blocks of every living thing on Earth. By understanding how cells work we discover how we, ourselves, function as intricate and complicated living machines. This exploration into inner space takes us to the center of it all, the blueprints of life and the various structures that support the life of all plants and animals, from a single celled organism to the multi-organ, highly specialized systems of human beings. This class includes the study of cell structure and function, cell division and reproduction, unicellular organisms and the cells of different specialized tissues through the creation of models and other experiments and hands-on activities.

CERAMICS (Linda) (10+) *Art*

The art of pottery has been around since 30,000 BCE. It can be functional, sculptural, and even, at its best, both. Kids will learn the basic clay building techniques of coiling, pinching, and slab building and combine them to create their own functional works of art. We will play with texture and three-dimensional form as well as experimenting with glazed surface decoration.

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CHANGEMAKERS: DISCOVERING FORWARD THINKERS WHILE ENHANCING RESEARCH AND WRITING SKILLS

(Zeinab) (10+) *History, Research, Writing*

There are a lot of highly impressive creations and rights/beliefs we definitely take for granted today in 2022. How did we get here? Who came up with it, and HOW? In this class, students will research individuals who have generated forward progress or outstanding leadership. In each research experience, parameters will be outlined of different things for students to capture and communicate through their written pieces. Students will be given tips on how to structure their research and papers.

CHESS CHAMPIONS (Joe) (11+) *Chess, Strategy*

Chess is a fascinating game with a long and prestigious history. It has been played by great mathematicians, scientists, artists and creative and intelligent people of all types (as well as by just ordinary people like you and me) for hundreds of years. Many people would say that there is not a more enjoyable, challenging or educational game than chess. Maybe the most surprising thing about chess though, is that kids love it! This class is fun for the more seasoned player that already knows the basics and is ready to learn about advanced strategies, move sequences, endgames and feints.

CONVERSATIONAL SPANISH AND CULTURE (Scarlett) (7-11) *Spanish, Culture*

Hola Amigos y Amigas! Grab your passports and take a stroll through 21 different countries with Senorita Scarlett. In this class we learn about the Latin culture while learning their native language. We will explore Spanish in the best ways through music, dance, poems, books, and even special speaking guests. Aventura nos espera. Adventure awaits!

CULTURE CREATURES: MAGIC, MONSTERS, & MYTHOLOGY (Kimber) (7-10) *Social Studies, Literacy, History, Art*

Things that go bump in the night can't scare us in this monstrous fun class! The intrigue and possibility of magical and other-worldly weird creatures has always fascinated us. Whether it is fairies, ghosts and spirits, shape-shifting humans with supernatural powers, or peculiar beasts of mythology and legend, they all still continue to thrill, entertain, and bemuse us. What are the stories from different cultures about their most magical- or monstrous creatures? In this "freaky" fun class, students will discover the power of folklores, mythical legends, cryptids and stories behind the beasts of this world- and the world of our imaginations. Mermaids, sea serpents, dragons, unicorns, griffins, kelpies, banshees, werewolves... and the list goes on and on. There are even parallel sightings or stories of similar creatures in different countries from around the world; students will delve into why the same creatures pop up in the stories of cultures separated by great spans of time and distance. Inspired by super cool stories about fantastic beasts from the far reaches, as well as classic Greek, Indian, and Egyptian mythology, students will then work on capturing the essence of these creatures through a variety of art mediums and exciting projects. "Culture Creature" art projects include fantasy paintings, monster mouth bowls and models, clay sculptures, dragon eyeballs, masks- and so much more!

CULTURE, SOCIETY & CIVILIZATION (Joe) (10+) *Social Studies***IN-PERSON & ONLINE**

Why do you do things the way you do them? Why do you like the kind of music you do, or wear the kind of clothes, or eat the kind of food you do? How do these things affect the way you see the world? What impact do the games

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you play or the stories you hear have on the decisions you make and the values that lead you to make them?

Have you ever wondered about any of these things? In this class we'll examine the idea of civilization, and how societies form, and how cultures develop, and what that means to us and our lives. We'll look at other cultures, from other places and other times, but always with an awareness that we are looking at them from within our own culture and our own time. We'll question what control we have over our society and culture, and we'll examine and consider our roles and relationship to them. We'll question how perfect and imperfect our society is, and consider what might be done to improve it. We'll look at our own culture - and subcultures - and wonder whether it controls or limits us in ways we want it to, or if maybe we might want to break free of some of its constraints. We'll examine our values, think about where they come from and check in with ourselves to make sure we really believe what we believe.

The 10+ and 11+ levels of this class will include in-class reading and written assignments that might extend to out-of-class work if in-class time is not sufficient for their completion. The 11+ class will include out of class research and possibly out of class written work.

DECODING THE CONSTITUTION (AND GET ACQUAINTED WITH ITS FOUNDERS) (Liz) (9+) *History*

As Americans we love to talk about our freedoms. But where do our freedoms come from? What are we actually free to do? How much freedom did the Founding Fathers actually want everyone to have? Diving into the actual document this class will read the Constitution and get into what was actually written, what was meant by it, and how our courts throughout the years have interpreted this words written over 200 yeras ago. Along the way we will meet a cast of characters from stoic George Wadhington to outspoken Benjamin Franklin. And don't worry as Jane Adams reminder her husband we will make sure to "Remember the ladies."

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

IN-PERSON & ONLINE / BY RECOMMENDATION ONLY

Prerequisite = Math Mavericks or equivalent

This is a multilevel class that serves upper-elementary students who want to make sure they're 100% complete on all grade-appropriate educational standards, and also more advanced students (pre-algebra, algebra, geometry, algebra 2) who seek supplemental teacher-supported practice time. This multi-level learning environment which allows 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.

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.

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

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DEPICTION DRAWING (Trista) (8+) *Art*

Sharpen your pencils and explore the basics of drawing. We will play with lighting, lines, edges and shading, value scales, perspective, space, textures and form.

For anyone who wants to take their drawing to the next level this class is for you.

DICTIONARIES, THESAURUSES, AND VOCABULARY EXPANSION (Zeinab) (7-10) *English*

Want to elevate your diction and dazzle others with your nifty choice of words? Each week, students will be introduced to 5 new words to define and use in a written or verbal way. They will have word challenges to write descriptions with uncommon words, or to use descriptive adjectives to paint a full sensory experience for the reader. We will also play word games such as Scrabble, Scattergories, Boggle, etc.

EARLY HISTORY OF THE MIDDLE EAST (Linda) (10+) *History, Art, Social Science*

From the cradle of civilization to the Crusades and the Ottoman Empire, this class will explore the early years of the Middle East (West Asia). As empires grow, conquer, fall and give rise to new civilizations, culture flourishes and evolves. From the ancient pagan religions we see the birth of Judaism, Christianity, and Islam. Innovations in art and architecture, science, and philosophy find their way west through the Silk Road. Stories mythologized through classic literature come to life as we discover the early history of the Middle East.

ENGINEERS AND ARCHITECTS: BUILDER'S 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. This semester you can look forward to all new projects and challenges.

EXCURSIONS: YELLOWSTONE NATIONAL PARK (Jessie & Trista) (12+)

MUST APPLY FOR ENTRY

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

EXPRESSIONS OF A POET (Zeinab) (10+) *Creative Writing*

The beauty and art of poetry lies in each writer's freedom and bravery to have their own creative style. In this class, students will be introduced to great poets and work to extract meaning from their writings, see different ways others convey their messages, and be exposed to diverse styles. Think music lyrics, silly poems, famous poets, and even Shakespeare!

EXTENDING PSYCHOLOGY (Linda) (11+) *Science, Social Science*

As we reemerged this Fall from our pandemic isolation and learned to be together again we explored the world of social psychology and why we behave around others the way we do. We looked at psychology's place as a science and the difficulties of creating scientifically sound psychological experiments and theories. Nature vs. nurture, consciousness, and the personality were also explored. This Spring we will endeavour to discover the neurobiology

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driving our thoughts, emotions, and behaviors and take a look at the great variety outside the realm of the “typical” brain and what is considered a disorder. How do we learn and remember? What are the stages of the developing mind and what stage am I in? If you are fascinated by how the human mind works then join us in our inquiries.

FANTASTICAL - FANTASY AND SCI-FI ART (Kimber) (8+) *Art, Fantasy, Science Fiction*

In this fun, creative class, we will explore the fantasy world of unicorns, wizards, faerie folk and more. Entering into mysterious realms, we will also dive into new ways to create amazing sci-fi artwork depicting futuristic and imaginative scenes. From fantasy art of the 18th century Romanticism to contemporary comic books and illustrations, from retro space art to Hayao Miyazaki’s Studio Ghibi... we will look at the history and wildly diverse variety of fantasy and sci-fi artworks. Students will discover that this type of art, one of the most vivid ways to express people’s imagination, can take so many forms. Inspired by all things other-worldly, fantastic and magical, we will then develop amazing art pieces using sculpture materials, colored pencils, pens, alcohol inks, watercolors and acrylics. As we experiment with these various media, seeing beyond the worlds of our imaginations, we will decide... will we create a sparkly underwater mermaid, a gnarly garden gnome or a mystical wizard with flames shooting out of a wand? Will we get lost in a world of space stations, floating cities and multiple moons in the night sky? Will we be inspired by *Star Wars*, *The Lord of the Rings*, *The Sword of Shannara*, *Harry Potter*, and even the collectable card game *Magic: The Gathering*? Will our creation be an enormous reptilian, bat-winged, fire-breathing dragon flying towards new kingdoms? Whatever we create, it will be phenomenal!

FORENSIC SCIENCE - WHO DONE IT? (Trista) (8+) *Science*

Let’s find the answers to unsolved mysteries using science!

Forensic scientists examine and analyze evidence from crime scenes and elsewhere to develop objective findings that can assist in the investigation and prosecution of perpetrators of crime or absolve an innocent person from suspicion. Get ready to solve some of our own mysteries using forensic science. We will conduct scientific research in several forensic disciplines, including DNA, ballistics, fingerprint analysis, trace evidence, and digital, among others to figure out who dunnit!

FULL SCALE FILM PRODUCTION (Trista) (11+)

Ready. Set. Action! Let’s look at ways to get our stories on the screen. We’ll explore film production and various aspects of getting a movie made, with the intentions of making our own short films. We will learn about lighting, sound and filmmaking.

FUTUROLOGY - BLOCK CHAIN, A.I., AND MORE (Josh) (9+) *Science, Technology, Social Studies***IN-PERSON & ONLINE**

In this class, students will explore a variety of fascinating futuristic technology from both a practical and hypothetical standpoint. We will examine in-depth subjects such as Artificial Intelligence and its many applications: self-driving cars, GPT-3, even artificial consciousnesses. In addition to that, blockchain technology & its many applications such as cryptocurrency, NFT’s, and Metaverses. If you are interested in technology and how it may impact society, this is the class for you!

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GAME ON: SPORTS & GAMES (Rashad & Nathan) (7-9) *Physical Education*

Let's get out in the field and play some games! Students will play soccer, baseball, flag football, capture the flag, and a variety of other games that will get their blood pumping and provide that perfect break from the classroom. This class focuses on physical activity, health, sportsmanship, fun, and playing within the rules!

GAMES GALORE (Chie) (5+)

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

GLOBE TROTTERS: WHERE IN THE WORLD GAMES & CARTOGRAPHY (Nathan) (9+) *Geography*

This is a world geography class that will help students gain skills that will help them navigate the world. Students will make and read maps and identify major land masses, oceans, and seas. We will also practice identifying places based on political boundaries (human made borders) that separate countries and states, hemispheres, and lines of latitude and longitude. Our geography game will make learning fun and competitive and is perfect for students of all skill levels!

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.

GOLDEN STATE HISTORY (Linda) (8-10) *History*

For thousands of years California was populated by diverse and mostly peaceful groups of indigenous peoples until European explorers dropped anchor first in the south and then up north several years later. It wouldn't be until 200 years later that the Spanish would truly invade and change life on the western coastline of the United States forever. This class explores the ever evolving culture, the major life-altering events, and the people who made their mark in the Golden State. From the missions, Mexican rancheros, the discovery of gold, the transcontinental railroad, the film industry to the water wars, we will discover all that made this 31st state the weird and wonderful place it is today.

HEART ART: PEACE FOR THE PLANET (Kimber) (7+) *Art, Community Causes, Human Rights, Animal Care*

Art with a conscience and with a heart... Students in this fun, creative and kind class will use many forms of art as a way to bring attention to community causes and global issues, to creatively express important ideas- and to make a difference in a thoughtful, powerful way. For people, for peace and for the planet... for positive change. This class will combine art, earth care, community support and social action as a way to enhance all of our lives. Projects include a community mural, paintings, posters, cards and a fundraising event, like "a "Pawsta" Dinner for an animal preservation group. Students will also create and sell creative and crafty goodies in their "Greater Good Gift Shop" for their personal passion projects. From homeless care packages to saving gorillas, from equal rights and planet protection to projects for peace, students will make a positive impact through their actions. I can't wait to see what they do!

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HEARTS FOR HUMANITY (Scarlett) (7+)

Have you ever wondered what your heart looks like when you're happy or even when you are sad? In this class we dive deep and learn about the emotions that make our hearts leap for joy while also learning to accept the emotions that could make us doubt our wonderful skills. Our day will be filled with learning amazing resources and coping strategies to emotionally regulate and get the best human experience out of life. Let's build emotional fitness together! After all life throws us many curveballs, but in this class we practice hitting it right out of the park even if we miss.

HIKER'S CLUB ADVENTURERS (Nathan & Josh) (11+) *Physical Education, Practical Life Skills, History, Geography*

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.

HIKER'S CLUB EXPLORERS (Nathan & Zeinab) (8-11) *Physical Education, Practical Life Skills, History, Geography*

OUTDOOR LEARNING DAY ONLY

In this class we will explore some of southern California's most beautiful landscapes!. We will experience our rich natural surroundings both in and out of the city. We will hike, climb, swim, investigate, explore, and challenge ourselves to learn about the history, geological diversity, and abundant flora and fauna right around our community!

A HISTORY OF WAR (Josh) (11+) *History, Social Studies*

War! HUH! What is it good for? Well, I guess it depends who you ask. Throughout mankind, and even the greater animal kingdom, disputes often lead to wars. In this class, we will explore a variety of fascinating wars throughout the world, and examine the humanity within them. Students will learn not only the history of these disputes but understand that life is often far more complicated than good guys fighting bad guys. We will engage in discussions and debates about the nature of war, as well as learn some of the intriguing stories within. If you find war, human nature, or history fascinating, I hope to see you here!

HISTORY THROUGH GRAPHIC NOVELS (Liz) (7+) *Literature, History*

They say a picture is worth a thousand words but when you combine a picture with words you open up a whole new world of understanding. Graphic novels are a striking way to tell a story and a stunning way to tell historical stories. We will travel through time to explore stories from World War 2, the Vietnam war, the Civil Rights Movement and even go back to our origins as humans. Students will read graphic novels and examine how they use the medium to their advantage to tell these sprawling tales as well as turn a critical eye to the text by learning the history to see where liberties may have been taken. For the younger readers there will be shorter graphic novels with a greater emphasis on biography. Students will be doing independent reading.

AN HOUR OF READING W/ LIZ (Liz) (7+) *Literature, Writing*

Come in, take a seat. Take a moment to appreciate all the cool things Liz has in her room. It just makes you want to curl up with a good book. Well now you can. In this class each student will be reading a book of their own choosing.

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We will be sharing what we have read with the group and keeping a reading log. Students will explore new genres, get recommendations, and create visual projects and written works to share with others about their favorite books. And of course, Liz will have some books of her own to read aloud to the class.

HUMAN BODY - ORGANIZATION AND INTERACTION OF THE ORGAN SYSTEMS (Linda) (8+) *Science*

The human body is a fantastic, intricate machine. Each cell works together with other cells to form tissues, and then organs. Organs work in conjunction with other organs to form organ systems that integrate and work together to run a living organism. Beginning with the skeletal system and working our way out we will build models, play games, and conduct experiments as we learn how each part contributes to the whole.

HUMAN BODY - THE DIGESTIVE SYSTEM AND NUTRITION (Linda) (10+) *Science*

There are 30 feet of tubes with 8 main parts of the digestive system. From teeth to tush we will explore all the nooks and crannies and what happens to that bite of pizza as it makes its way through your gastrointestinal tract. What do we need to maintain a healthy body? What are the major food groups and how much of what should I be eating? Nutrition is a controversial ever-changing science. From fad diets, super-foods, and evolving theories of what foods to avoid and what foods do you need the most of, it is difficult to wade through all the pseudoscience and weight loss scams. This class breaks it all down and cuts through the bologna (*literally*).

IDEA CATCHERS AND STORYTELLERS (Zeinab) (8+) *Creative Writing*

A great way to start writing is to share about small moments in one's life. After hearing a special or emotional story, students will be invited to share about themselves, interview a family member or friend, and share. At the end, they can record a formal interview, and we can create a mini podcast.

IMMERSIVE THEATER FOR ACTORS (Trista) (10+)

In this theater class, we will hone our acting skills through performing monologues, scene work and developing characters. At the end of the semester we will produce a showcase of Miyazaki using our theater designed props and sets. This class is an optional accompaniment to Tuesday's Immersive Theater Production Design class.

IMMERSIVE THEATER PRODUCTION DESIGN (Linda & Trista) (10+)

Learn production design while bringing the magical world of Miyazaki and Studio Ghibli to life! Linda and Trista will be a hands-on art class where we bring the world of Miyazaki to life. Giant Cat Bus? Baba Yaga? Totoro? No Face? Let's breathe life to these amazing characters. This class is an optional accompaniment to Thursday's Immersive Theater for Actors.

INDIGENOUS PEOPLE OF THE WORLD (Kimber) (7+) *Social Studies-World Cultures, History, Art, Geography*

Students in this fun class will travel through a kaleidoscope of countries and be introduced to the fascinating history, culture and importance of many diverse indigenous, traditional and tribal peoples around the world. From jungle to forest, island to mountain, town to city... spread across more than 90 countries, there are thousands of different indigenous peoples. Through interesting visual presentations, discussions, hands-on "culture creations" and beautiful art projects, students will explore the daily life, beliefs, stories and traditions of many of these different groups. Students will also delve into current day issues and the social, economic, and cultural rights of indigenous peoples. In

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a positive and powerful way, students will be challenged to think about... how do these unique indigenous peoples express their identities? How has this changed? What happens when two cultures come together? What are the consequences? Why are indigenous people often in political, socio-economic, and cultural jeopardy? What is the connection of indigenous cultures to where they live- and why is habitat conservation so crucial to the survival of these peoples? What can we do? Students will then, inspired by the vibrant cultures of traditional, tribal and first peoples, create a clay sculpture, symbol beads, body adornment-jewelry or mask, map, folk art piece and paintings. In addition to these art projects, projects will also include a group research presentation and a variety of informative pieces that express needs for appreciation, respect and preservation of indigenous communities, peoples and nations.

INVESTIGATING THE IDEAS OF MALCOLM GLADWELL & ADAM GRANT - A WRITER'S SYMPOSIUM (Jessie) (11+)

Writing (Classical Argument Essay Structure/Critical Analysis Writing), Humanities and Social Policy, Discussion Skills
According to Malcolm, the question that should drive your writing is always: What is interesting? What do you find interesting as a writer, and what do the people around you find interesting? Throughout the semester, we will be reading, writing and discussing some compelling essays by Adam Grant and Malcolm Gladwell in order to stretch our ability to critically analyze and compare others thoughts and ideas through our own lens. Through weekly essays, students will dive further into understanding how to communicate ideas and concepts with clarity and tact. They will begin to see essay writing as a way to form and capture their ideas, not just "homework." We will hold writing symposiums each month (open to staff, parents and students) where we will discuss, stretch and further investigate our ideas both as individuals and as a community.

JUST DANCE (Scarlett) (5+)

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

KNOCK KNOCK "WHO'S THERE?" "GRAMMAR POLICE" (Zeinab) (8-10) *English*

Grammar is FOREVER. Students will learn, understand, and continually practice the technicalities of grammar rules, polish sentences and paragraphs, and proofread written work. They will also read and reflect weekly on books of their own choice to build a personal hobby of reading.

LAB DABBLERS: SCIENCE FRICTION! (Nathan) (7-10) *Science*

Welcome to Lab Dabblers Science Friction where students will have a chance to dive into a variety of scientific disciplines! Our experiments and projects will cover everything from mass and matter to energy and forces! We will use the scientific method to answer a wide variety of questions concerning how and why everything in the universe is that way it is! Put your scientific seatbelt on and let's find answers to questions we didn;t even know existed!

LEGO ROBOTICS AND ENGINEERING (Digital Dragon) (7+) *Engineering, Programming*

In this class, students will explore the evolving world of robotics, learning how to build, program, and perfect your very own robots. Using LEGO robotics kits, they will learn to build and program robots—integrating motors for moving parts, and sensors to take input from the physical world—to complete a variety of challenges.

Please review the Spring 2022 Class Schedule for age ranges of individual classes.

MAGIC THE GATHERING (Josh) (10+) *Strategy, Gaming*

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 further develop their mastery of this game and these corresponding skills. For those that want to become a master, look no further!

MASTER OF THE TABLE (Josh) (8+) *Strategy & Critical Analysis*

Strategy is at the heart of every decision we make, so why not be a tactician!? This class will engage students in a variety of strategic card & board games, allowing them to hone their ability to critically analyze all different kinds of situations and make tactful decisions. Students will learn lessons from Sun Tzu's "The Art of War," which will serve as a backdrop for all of our strategic decisions. From reading our opponents in Poker to dominating the world in Risk, there is an abundance of skills to explore.

MATH MAVERICKS (Semester 2 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 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

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(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 x 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!

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!

MINI-EXCURSIONS: CALIFORNIA DREAMIN' (Nathan & Joe) (8-11) *Practical Life Skills, Geography, History***MUST APPLY FOR ENTRY**

Are you ready for adventure? In this class we will create, investigate, and plan a trip to and around the beautiful state of California! Students will research specific destinations and lead in the planning of this educational journey across and throughout the state. Our goal is for students to practice the skills necessary to plan an educational trip in a realistic and powerful manner. Think Alcatraz, Monterey Bay, Hearst Castle, gold mining towns, Sacramento, Yosemite, Sequoia, Joshua Tree, Death Valley, etc. but it will totally be up to the kids! This class will culminate in a late semester adventure where students will have an opportunity to visit the places they have researched, interview experts at each spot, and document their journey!

THE MYTHOLOGY IN OUR STARS & WATERS (Liz) (7-10) *Literature, Social Studies*

For our ancient ancestors the sky above and the deep sea were places of mystery. They contained monsters, gods,

Please review the Spring 2022 Class Schedule for age ranges of individual classes.

and provided the scene for epic battles and tragic love stories. In this class we will explore myths from around the world that give us a glimpse into the past. From the rabbit that is imprinted to the face on the moon to lovely mermaids who lure sailors to their deaths, students will learn the origins of these and many more stories. In class we create writings and art work to solidify this information and be able to present it in an entertaining and informative way.

NOVEL TEA: THE MARTIAN CHRONICLES & OTHER SCI-FI CLASSICS (Liz) (12+) *Literature, Writing*

In 1950 Ray Bradbury published his classic work, *The Martian Chronicles* which dealt with exploration of the planet Mars from the years 1999 to 2026. Here we are right in the middle of the era he was speaking about. As a class we will read this important classic, look at the society that it was born out of and how it influenced the work. We will also look at how this book speaks to us today. With guided journal prompts and chapter summaries students will come away with a full understanding of this seminal work. After we complete this book we will move on to short science fiction stories from (but not limited to) Philip K. Dick, Kurt Vonnegut, and Ursula Le Guin. By examining what society thought as unusual, impossible, or threatening we can gain a better insight into who we are and who we can become.

OUR COMMUNITY'S PATH TO CITIZENSHIP (Liz) (8+) *History, Writing*

America is a country of immigrants. That is what makes it so powerful, so many stories coming together to create the rich book of America. The reasons and ways that people come to America are vast, each one telling us something about the person and illuminating our country's history and future in the process. The community of the Realm has so many of these stories just waiting to be shared. In this class students will explore their own families' past as well as hear from other families' stories of immigrating to America. Along the way we will look at the laws that have made it possible for people to immigrate and unfortunately some that made it difficult. But through it all we will be enriched by the beauty we will see and knowledge we will acquire.

PHILOSOPHICAL IDEAS (Joe) (11+) *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.

This class jumps right into 20th century thought and will move pretty quickly into a look at contemporary issues and a variety of philosophical responses to them. During the first semester of this course, students scratched the surface of philosophical ideas like Language & Meaning, Phenomenology, Existentialism, Modernism, Structuralism, Post-structuralism and Post-modernism. This semester we'll delve a little deeper into these ways of thinking, and see how they relate to and impact our own lives. We'll look at specific contemporary issues and try to organize our thoughts and responses to them.

Don't worry if you didn't take the philosophy class last semester, this is a standalone one semester course that will build on material covered last time but not require familiarity with it.

Please review the Spring 2022 Class Schedule for age ranges of individual classes.

Topics will include Critical Thinking, Language, Ethics, Art, Race, and Politics. We'll learn about the ideas of philosophers like Alvin Goldman, John Dewey, Martin Heidegger, Jacques Derrida, Ludwig Wittgenstein, and others. This should give us plenty to think about. Students will learn to form and clearly express well-founded and supported ideas and viewpoints.

The 11+ level of this class will include in-class reading and written assignments that might extend to out-of-class work if in-class time is not sufficient for their completion. The 11+ class will include out of class research and possibly out of class written work.

PHYSICS II (Linda) (11+) *Science, Math*

We will continue our discovery of how the universe works with this class. The Fall class focused on motion, gravity, Newtonian laws, and introduced vectors. This spring students will explore heat, electricity, sound, and light. With a touch of math and a huge dollop of hands-on experimentation we will resume our adventure in the world of physics.

PLAYLISTS: MUSIC THROUGH THE DECADES (Trista) (7-10) *Music, Writing, History*

Many of us have a song that changed our lives. What were your parents or grandparents listening to as teens? And of course there is no shortage of songs that changed the course of music itself. History has its own soundtrack and we go on an audible dive into history's playlist. We will write lyrics and create our own playlists along the way!

PRE-ALGEBRA (Semester 2 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.

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

RAIDERS OF THE LOST ARTIFACTS (Kimber) (7+) *Archaeology, Ancient History, Art, Geography*

In this unique history exploration class, students will be introduced to the study of archaeology and examine information discovered from ancient artifacts and interesting excavations from around the world. This fun study of past human activity combines the excitement of treasure hunting with the investigative thrill of detective work. What stories do these discovered treasures tell us about people and civilizations of the past? How do archaeologists and “dirt detectives” decipher information from bones, ruins, shards and remnants of past cultures? Through stories, games, cool experiments and projects, students will “dig deep” and explore archaeological methods, survey and excavation. If we were an archaeologist... how do we find important sites and what do we do with them? How do we interpret artifacts? How do we preserve a site? Can we keep what we find? What about sunken treasures? How do we become a shipwreck sleuth? Students will then delve into the results of real archaeological quests, the wonders discovered from different time periods, lost civilizations, ancient ruins, sacred writings, strange artifacts and more. Students will then chart findings, do a group presentation- and create a variety of cool artifact and site-inspired projects. We will even have our own archaeological dig! Let the adventures begin!

ROCK CLIMBING (Trista) (8+) *Rock Climbing, Physical Education*

Want a fun way to exercise and get a strong, healthy body? Students will travel to Sender One for weekly climbing lessons and climb time with certified instructors from Sender One. Students will learn different techniques and various ways to become a better rock climber! Students will have access to bouldering walls, auto belays, and top rope climbs with a trained belayer. Students over 10 years old will learn how to safely and properly belay. Advanced students will increase their climbing skills and agility by practicing and pushing themselves to be better climbers. Students will focus on honing in techniques and challenging their abilities with hard problems and increasing the grade on their routes.

A SCAVENGER HUNT W/ CHIE (Chie) (5+)

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

SCREENPLAY WRITER'S DEN (Trista) (10+) *Writing*

Everyone has a story to tell. Tell yours in a screenplay. Short film? Feature? TV? We study various aspects of screenplays; from longlines, notes and revision to character and dialogue development. We study different genres and students are encouraged to write whatever they wish. We bring our films to table readings for note sessions. Beginning and Returning Students encouraged!

SCRIPT READING IN THE HIPPODROME (Josh) (11+) *Acting, Social Studies*

OUTDOOR LEARNERS ONLY

Everyone loves a compelling story, especially when we can connect ourselves to them. In this class, we will explore a variety of scenes from Theater, Film, and Television, breaking them down so we understand exactly what the scene is about, and what the intentions of the characters are. Students will also have the opportunity to bring in some of their favorite theater or film or tv scenes to work on! Whether you're a veteran actor, just starting out, or just a fan of a good story, this class will have something for you!

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SCRUMPTIOUS SCANDINAVIA: VIKINGS TO MODERN DAY (Kimber) (7+)

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

SHAKE IT UP - DANCE 'TIL YOU DROP (Scarlett) (8+)

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

SIMPLY CERAMICS (Lisa) (5-10) *Art*

Let's get slabbing, coiling, pinching and glazing! We're going to learn the basic techniques of clay hand building, while making lots of cool ceramic sculptures. We will also focus on the glazing & kiln firing process, so that each handmade clay creation will become a finished, colorful masterpiece. Roll up your sleeves and prepare to turn mud into magic!

A SLICE OF AMERICAN HISTORY: POSTWAR 1940'S-1960'S (Kimber) (7+)

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

SOLO AND ITS PLAYLIST (Trista) *Literature, Composition, Music History*

From award-winning and bestselling author Kwame Alexander (*The Crossover*), *Solo* is the story of seventeen-year-old Blade Morrison, who is being crushed between the scathing tabloids exposing his former rock-star-father and a protected secret that threatens his own identity. Blade finds answers in a journey to Africa and in his Playlist. Written in Kwame Alexander's poetic verse style, this book encourages the exploration of deep issues and themes through a loose easy style. We will follow Blade as he finds answers in a journey to Africa and his Playlist. *Solo* covers some of the most amazing music and artists, and the history that goes along with the recordings. We will create our own lyrics and PLAYLISTS along the way.

STORIES ABOUT HUMANITY: THE HUMAN CONDITION - RESEARCH AND REFLECTION (Zeinab) (8+) *History, Research*

Who are we and what are the stories that happen outside of our small worlds at home and at The REALM? And: does it matter? Each week, students will find a story or article that represents part of being human. Along with the story or article, they can write about how that experience pertains to their own lives. For example, one topic could be human kindness; like people going out of their way for others. Or sorrow, feelings that relate to loss and tragedy, exhilaration, fear, connection, inspiration, defeat, or loneliness.

SUPERHEROES AND SUPERVILLAINS: COMIC CREATORS (Zeinab) (7+) *Creative Writing*

Superman? Batman? The Avengers? Dr. Doom, The Green Goblin, Thanos, Ronan, The Joker, General Zod... The list seems endless. Have writers come up with it all, or are you up to the challenge of bringing new characters, superpowers, and stories to life? In this class, students will create their own superheroes, supervillains, and tantalizing plots, then illustrate them in comic book style. This will be published in the end!

THINKING ART (Linda) (8+) *Art, Math*

Taking our inspiration from mind-bending artists such as MC Escher, the mathematical genius of Fibonacci, as well as the subconscious explorations of surrealism we will endeavour to create art that exercises the brain of the artist as well as that of the viewer. Art can be thought provoking whether it is in the mechanics of creating it, about the

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subject of the art itself, or by forcing us to ask questions about the world it represents. We will play with optical illusions, extreme realism, the intersection of geometry and design, and perspective while also spelunking the depths of our imaginations.

THROUGH THE LENS OF DA VINCI: NATURE EXPLORATION, TAXONOMY, CLASSIFICATION, AND JOURNALING

(Nathan) (8+) *Science*

OUTDOOR LEARNERS DAY ONLY

In this class we will be exploring the scientific side of nature. Students will begin to explore how animals survive in their specific environments, adaptations that have appeared over time, and how many of the species to have called this place home have disappeared...and why. We will explore what this land may have looked like thousands and even millions of years ago and look for signs that will help us tell that story!

UPCYCLE UNIVERSE AND THE STORY OF STUFF (Kimber) (11+) *Art, Product Design, Recycling and Sustainability*

Whether it's incredible trashion fashions, home decorations, funky furniture, body adornments or games and toys... students in this exciting class will be challenged to look at discarded items in a new way and then, with a bit of this and a piece of that, create wonderful- and entirely "new" upcycled, functional pieces. Student product designer and trash-to-treasure challenges will put their clever minds and creativity to the test - We will push the boundaries of using everyday discards as a source of raw material for designing new products- and having a positive impact on our environment! While stepping outside the box and exploring this unique universe of upcycling, we will also dive deep into the story of all of this thrown away "stuff", and the consequences on our planet- and our future. Concentrating on the life cycle of plastic, metal, paper, electronics and clothing, we will look at the different stages of development (extraction of materials needed to make an item, production, distribution, consumption, and finally, disposal). Is this all sustainable? What are the impacts of each stage? In what ways does overconsumption affect our health, happiness and the future of our planet? Are there other ways? How can we extend the life of an item? How can we repurpose and reuse old stuff? In a positive and powerful way, we will explore ideas, research solutions, make informative art posters, and all the while, breathing new life into trash, create funky and cool upcycled art projects.

WEDNESDAY AFTERNOON LIVE (Josh) (8+) *Writing, Acting*

Who needs Saturday night when you have Wednesday afternoons! In this class, students will get to write their own sketches & skits, cast their classmates / themselves, and record them for the amusement of all! Whether you're creating a parody or a completely original bit. Class time will be divided into the writing of our sketches, and making them as good as possible, as well as putting them on their feet, practicing our acting & improv skills. Whether you love to write, act, or make people laugh, you're guaranteed to have a good time in this class!

THE WORLD AT A GLANCE - CURRENT EVENTS: NEWSPAPERS, MAGAZINES, AND THE NEWS (Zeinab) (7-10) *History, Research*

What is happening in our world, and why should we care? In this class, students will search to learn about current events and create a wall with summaries of articles + pictures. The REALM will provide resources like Nat Geo, Time Magazine, LA Times, etc. When the mail comes in, students will choose articles to report on and to add to the news wall.

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WOVEN WORDS (Jessie) (7-9) *Literacy, Writing*

Come ready to write with the wind! In this adventure, we will study beautiful, silly and layered verse through poems and books. We will befriend and look at language and how to “paint a picture” using words. We will learn how to rhyme, rhyme schemes, slant rhymes, and look at when rhyming helps communicate and when it gets in the way. Introductions to alliteration, onomatopoeia, simile, metaphor in a fun way will occur. Most importantly we will write our own poetry and practice communicating what is going on within us, what we see, how we feel. I will assist students in feeling free to say what they need to while learning to remove any blocks getting in the way. REALM Poets, let us band together merry fellows!