



## Junior Scholars Course Descriptions

### Week 1: June 25 - 29

#### **Basketball Clinic: Fun and Fundamentals (AM)**

Teacher: Steve Shaffer

Enjoy a week of basketball! Supported by fundamentals on both offense and defense, students will take the skills that they learn this week and apply them in friendly, competitive settings. Teamwork and sportsmanship are at the core of this course. Join us to hone your skills and have some fun.

#### **Scholar Daily News (AM)**

Teacher: TBA

Extra, extra, read all about it! Junior Scholars will produce a newspaper about the life of the Summer Program. Through interviews with fellow students and teachers, photojournalism, and editing, students in this class will have their fingers on the pulse of all things MFS Summer Programs.

#### **Rap it Up!: Exploring Hip-Hop (PM)**

Teacher: TBA

This class will examine some elements of hip-hop culture, focusing on rap. Over the course of the week, students will explore beat and rhythm, song structure, improvisation, and rhyme. Using GarageBand, this hands-on course will allow plenty of time to explore rap, as well as some opportunities to extend into breakdancing.

#### **Exploring Plate Tectonics (PM)**

Teacher: TBA

This science-focused course will key in on the dynamic nature of the lithosphere, which makes up the outer shell of our earth's crust. Students will examine the science behind these plates, from their interwoven tapestry to their geological composition.

### **Swimming & Field Games (PM)**

Teacher: TBA

While students are spending half of this block in the pool (75 minutes), the other half of the time is spent playing fun games out on the fields or in the gym during inclement weather. Depending on interests of children, there will be flexibility in the programming. Activities may include soccer, basketball, dodgeball, volleyball, badminton, ping pong, tennis, lacrosse, wiffle ball, flag football, and more.

### **Week 2: July 9 - 13**

### **Science Olympiad II (AM)**

Teacher: Deborah Bruvik

Science Olympiad is a national non-profit organization dedicated to improving the quality of science education, increasing male, female and minority interest in science and providing recognition for outstanding achievement by students. In this second offering of a popular course, students will work in cooperative learning groups taking part in various science challenges. *New for 2018: Build and race your own Pastamobile!*

### **Escape Room with Breakout EDU (AM)**

Teacher: Mike Romea

Over the course of the week, students will use the immersive learning platform of Breakout EDU to hone their code-breaking and puzzle-solving skills. With these skills at their disposal, Junior Scholars will work in teams over the course of the week to develop their very own Escape Room. The week will culminate with students testing out the other team's room. Come join us for some engaging puzzle solving and fun!

### **Swimming & Field Games (AM)**

Teacher: TBA

While students are spending half of this block in the pool (75 minutes), the other half of the time is spent playing fun games out on the fields or in the gym during inclement weather. Depending on interests of children, there will be flexibility in the programming. Activities may include soccer, basketball, dodgeball, volleyball, badminton, ping pong, tennis, lacrosse, wiffle ball, flag football, and more.

### **Just Be - Yoga and Mindfulness (PM)**

Teacher: Paige Bloom

Dive into the journey of the yogic path through this weeklong seminar. Students will be exposed to the many positive impacts of a yoga practice as they move and challenge their bodies, minds and souls through asana, meditation, and collaborative mat chats. Students will be provided with opportunities to deepen their sense of self, learn stress relieving strategies, and continue to develop a healthy body image all in a fun, supportive, non-competitive environment.

### **Portrait Drawing (PM)**

Teacher: Samantha Salazar

Do you love drawing and want to develop your skill set in drawing faces and people? Learn the various techniques that will leave you with a lifelong skill set in drawing portraiture. We will work with various mediums including pencil, oil pastel, and paint to create portraits.

### **Week 3: July 16 - 20**

### **Life is What You BAKE It (FD)**

Teacher: Kaitlin Kosmaczewski

Welcome to the fun and delicious world of baking! This is a two part course: during the morning, learn how to make yummy treats such as cookies, cakes and cupcakes; in the afternoon, practice making homemade icings and learn how to decorate the baked goods from the morning. Our class will work on putting together a small recipe book with the recipes we learn throughout the week. Be prepared to get flour on your face and have some fun during this sweet class! Note: This is a full day course.

### **Amusement Park Physics (AM)**

Teacher: Griffin Kidd

Work in teams to design and construct a working model of an amusement park! Explore elementary concepts of physics while you design your own marble roller coasters and build amusement park games. Using concepts such as conservation of energy and centripetal force, learn first hand what it takes to make a working roller coaster. On the final day the park will open and students will be running their game stands, demonstrating their rides, and even "selling" concessions. Who knew learning could be so much fun!?

### **T-Shirt Design: Silk Screening (PM)**

Teacher: Samantha Salazar

Have you ever wanted to make your own graphic tee!? Here is your chance to dabble with this printmaking technique. Leave the class with a series of your own printed t-shirts created from your drawings.

### **Swimming & Field Games (PM)**

Teacher: TBA

While students are spending half of this block in the pool (75 minutes), the other half of the time is spent playing fun games out on the fields or in the gym during inclement weather. Depending on interests of children, there will be flexibility in the programming. Activities may include soccer, basketball, dodgeball, volleyball, badminton, ping pong, tennis, lacrosse, wiffle ball, flag football, and more.

## **Week 4: July 23 - 27**

### **Food For Thought: Engineering Ice Cream (AM)**

Teacher: Deborah Bruvik

*Food For Thought: Engineering Ice Cream* is part of the Engineering Everywhere curriculum developed by the Museum of Science, Boston. Through this unit, youth will be introduced to engineering and Engineering Design Process as they work together to engineer a process for making ice cream. The unit will engage youth in hands-on, real world engineering experiences.

### **Generating Alternative Energy (AM)**

Teacher: Griffin Kidd

Junior Scholars will be exploring how electricity is produced, starting by building a working generator. We will then explore different ways of powering a generator with wind and water. Scholars will build a working model of a wind turbine and experiment to optimize the voltage their model produces and have the opportunity to explore their own creative solutions.

### **Swimming & Field Games (AM)**

Teacher: TBA

While students are spending half of this block in the pool (75 minutes), the other half of the time is spent playing fun games out on the fields or in the gym during inclement weather. Depending on interests of children, there will be flexibility in the programming. Activities may include soccer, basketball, dodgeball, volleyball, badminton, ping pong, tennis, lacrosse, wiffle ball, flag football, and more.

### **Earth Art (PM)**

Teacher: Samantha Salazar

Love the outdoors? Love art? Learn about the Earth Art movement while creating unique outdoor installations. Not only will we create natural art, but students will also gain photographic skill sets to record their work.

### **Forensic Science (PM)**

Teacher: Griffin Kidd

Crime Scene Investigation (CSI) and forensic science are two important fields in law enforcement. In this class, Scholars will use deductive reasoning and evidence to narrow down a list of suspects. They will learn about different types of physical evidence, how to collect evidence and how to examine physical evidence in order to solve a crime.

## **Week 5: July 30 - August 3**

### **Let's Put on a Musical (FD)**

Teacher: Jenny Torgerson

From story to production, and everywhere in between, students will work together to put on a musical. They will grow their acting skills, develop characters, design costumes, and build sets as part of this collaborative project. The week will close with a performance for friends and families.

### **Design and Develop Your Own App (AM)**

Teacher: Matt Wartenberg

Apps are complex things. From idea to code, there are many layers of thinking and design which come together to create the apps that we use every day. This course will explore the processes involved in app creation, from identifying a concept through writing the app into code. Through collaborative work, students will spend time identifying the ways in which apps are designed to solve problems, as well as principles of graphic design and layout. While we will not be able to code our own app, we will use a proxy program to explore how these learning principles work in real time.

### **Science Lab (PM)**

Teacher: TBA

Each day, explore a different science lab! Possibilities may include circuits, basic chemistry experiments, biology labs, and more. As students go through the labs, they will be supported with lessons putting their learning in context. This hands-on week promises to be full of fun and experimentation.

### **Swimming & Field Games (PM)**

Teacher: TBA

While students are spending half of this block in the pool (75 minutes), the other half of the time is spent playing fun games out on the fields or in the gym during inclement weather. Depending on interests of children, there will be flexibility in the programming. Activities may include soccer, basketball, dodgeball, volleyball, badminton, ping pong, tennis, lacrosse, wiffle ball, flag football, and more.

## **Week 6: August 6 - 10**

### **Rocketry and Launching Things (AM)**

Teacher: Deborah Carter-Bruvik

We have liftoff! Spend the week exploring the science behind launching things. There will be plenty of hands-on exploration (think bottle rockets and catapults) as students test the principles of aerodynamics and Newton's Laws of Motion. This promises to be a week of fun!

### **Coding and Robotics (AM)**

Teacher: TBA

Description: Step into the future with this thrilling adventure in computer science and technology! Students will advance their already prodigious understanding of digital devices and apply their knowledge in a constructive and creative way. Students will learn coding and programming in a fun and intuitive way, allowing them to begin designing and creating their own games and apps. This class is designed for all skill levels, so whether your child is already a

coding prodigy, or completely new to the concept, there will be plenty of fun for everyone. Don't just play on your digital devices, program them!

### **Swimming & Field Games (AM)**

Teacher: TBA

While students are spending half of this block in the pool (75 minutes), the other half of the time is spent playing fun games out on the fields or in the gym during inclement weather. Depending on interests of children, there will be flexibility in the programming. Activities may include soccer, basketball, dodgeball, volleyball, badminton, ping pong, tennis, lacrosse, wiffle ball, flag football, and more.

### **Vets in Training: "Interns" (PM)**

Teacher: Rachael Samaroo

By embracing the human-animal bond through interaction and education, the HousePaws Vets in Training Program provides hands-on, experience-based veterinary education to each student. The "Interns" course for our Junior Scholars will include Pet CPR, Anesthesia 101, Ophthalmology, the Skeletal System, and Cardiology, all at a level which is appropriate for this age group. Come explore the science behind how we care for our animal friends.

### **Basics of Woodworking (PM)**

Teacher: TBA

Using the MFS woodshop, students will explore the techniques of working with wood. In a safe and supervised manor, students will use the skills that they learn to create a project over the course of the week.