**Grades 6 & 7: Eight Morning Course Choices for 2016**

- Bump in the Night: Scary Stories, Urban Legends, and Why They Frighten Us
- Exploring the Properties of Gases
- Media Productions: How to be a Producer
- Medieval Madness
- Moon or Bust: Welcome to Rocket Science
- Philosophy of Sports and Games
- Rube Goldberg Explorations
- Sound Off! Sound and How it Defines Our Lives

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**Bump in the Night: Scary Stories, Urban Legends, and Why They Frighten Us**

What does it mean to be afraid? Why do we find certain things scary? Whether it is spiders, ghosts, roller coasters, or clowns, fears and phobias are both uniquely personal and a shared social experience. Each generation has its own ideas of what is scary and how we should confront those fears. In the first part of the course, we will examine the psychology of fear and break down popular stories and legends to see how they reflect our fears as a society. Then we will see how these stories evolve over time. We will also examine why fear entertains us, and why we are sometimes willing to pay for the experience of being afraid (movies, books, haunted houses, etc.). We will also look at how fear reflects our social and moral values, focusing on the role urban legends play in reflecting those values. In the second part of the course, you will create your own stories and legends. We will compile these stories to create an anthology called *SEP Scary Stories to Tell Your Friends.*

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**Exploring the Properties of Gases**

Gases are usually invisible substances, so we tend to ignore them. However, they have a tremendous impact on our daily life. In this hands-on, laboratory-based course, we will explore the physical and chemical properties of a variety of gases, including hydrogen, helium, nitrogen, oxygen, and carbon dioxide. We will take a look at examples of Bernoulli’s principle, learn how the barometer was invented, and investigate relationships between variables, such as volume and temperature. We will make connections between the ideal gas law and kinetic theory. The properties of volatile liquids and intermolecular forces will also be explored. Do you work well under pressure? Then you should definitely enjoy this course!

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**Media Productions: How to be a Producer**

Have you ever wondered how documentaries are made? What about all the steps are involved in creating a film? In this course, you will learn how to use the filmmaking process to turn an idea into a story. We will start by learning a few essential techniques and becoming familiar with important industry vocabulary through film screenings and group discussions. Through a series of activities, you will also learn the fundamentals skills of interviewing, being on-camera, writing, directing, doing cinematography, and editing. You will then work in teams to apply these skills by producing an original five-minute promotional piece on the Summer Enrichment Program that highlights its uniqueness. At the end of this course, you will not only have created a short film, but you will also have the knowledge and skills to continue creating films on topics of your choice.

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**Medieval Madness**

Imagine living during Medieval times and making everything from scratch. What materials did people have at their disposal? What gadgets did they use to help improve their lives? In this class, you will design, build, test, and refine a number of Medieval items. You will also communicate your design process and explain your products. Throughout the process of making new items using only everyday things, you will learn about these everyday materials and gadgets, their significance during Medieval times, and what life was like during the Middle Ages. This hands-on, inquiry-based, interdisciplinary course will allow you to use your knowledge and higher-level thinking skills to discover the significant role of everyday things during the Middle Ages. The course will culminate in a Medieval Fair where you will demonstrate what you’ve made and be knighted into the prestigious Knights of the Summer Enrichment Program!
Moon or Bust: Welcome to Rocket Science

Landing a person on the moon, it turns out, is not easy. “We can put a man on the moon but we can’t…” has become a stock phrase for lamenting, for example, society’s inability to devise a palatable flavor of toothpaste. But exactly how hard is it to land someone on the moon—and then return them safely? What questions do we have to ask and answer? What challenges do we have to overcome? NASA has the answers, but there’s nothing quite like finding out for ourselves. With some ingenuity, a little math, and a jaunt or two into science and science fiction, we can recreate NASA’s flagship achievement! With Kerbal Space Program, a spacecraft design and flight simulator, we have the resources, tools, and unlimited volunteer test pilots we need to plan, build, and launch an expedition to Mün, the Kerbol System’s moon analogue. In this course, through the Kerbal Space Program simulation software, we will translate abstract scientific ideas into engineering practice, learn how to learn from failure, and dive into the strange ballet that is orbital mechanics. No math background beyond pre-algebra is necessary.

Philosophy of Sports and Games

There are a lot of things to think about when considering sports and games. What is a game? What is a sport? Are games and sports just a waste of time? Are they just a distraction from “real” life? Why do games have rules? What kinds of rules are there? Do you really have to follow them? What does an Olympic athlete know that his or her coach doesn’t know? Why are great athletes so often bad coaches? Is there a special kind of athletic intelligence? What makes someone a good athlete or gamer? Can we compare performances across different sports? Can we compare players today with players from 70 years ago? Why is cheating bad? What counts as an unfair advantage? Should athletes be paid? If so, how much? Are there some sports that are too dangerous? If these questions interest you, then this is your class. We will consider many of them during our two weeks together, learning philosophical terms and techniques along the way.

Rube Goldberg Explorations

We all love chain reactions. Whether it’s “giving a mouse a cookie,” foiling the bad guys in the movie Home Alone, or having breakfast with Caractacus Pott in Chitty Chitty Bang Bang, we are forever amused when Thing A bumps into Device B and forces Item C into motion. While Rube Goldberg made bizarre, theoretical chain reactions famous in the early 1900s, recent artists like the band OK Go and animator Nick Park (Wallace and Gromit) have taken the art to a new level. Now it is time for you to get in on the action. Come and enjoy studying, planning, inventing, and building your very own Rube Goldberg machines!

Sound Off! Sound and How it Defines Our Lives

Sounds define our lives in extraordinary ways. Whether we are listening to our favorite radio station, hearing a siren go off, or enjoying our own form of silence, our sonic landscape is carefully shaped and constructed to influence us, in both for good and bad! In this class, students will learn to engage with the soundscape of their lives, carefully understanding how we, as individuals and as a society, listen to the world around us. We’ll discuss sound design in movies and television, how radio stations program their content, why we enjoy certain songs so much, what we think of as noise, whether or not is there such a thing as silence, how music shapes identity, and many other pertinent questions and ideas. No musical experience required. Just come with open ears!