Grades 6 & 7: Morning Course Choices for 2017

Courtesy of the Common Circle: Exploring the Intricacies of Geometric Thought from the Greeks to 2017
The Engineering Toolbox
Global Perspectives of the 21st Century World: A Cultural Investigation Beyond Borders
Periodic Explorations
Podcasting: Hear All about It!
This Rough Power: Reading and Writing Science Fiction
Social Inequalities and Popular Culture
The War to End All Wars: World War I Technology

**Courtesy of the Common Circle: Exploring the Intricacies of Geometric Thought from the Greeks to 2017**

What do the ancient Greeks, Alexander Graham Bell and MC Escher all have in common? They each explored the secrets of circles, and used them to produce an astonishing number of shapes and designs. We will start in the footsteps of the Ancient Greeks, then travel into the future to see the work modern inventors, designers, and artists. In addition to creating beautiful art, you will invent and build strong structures that serve a variety of purposes, such as sport, shelter, and flight. Sign up and you’ll get to go “round” the World!

**The Engineering Toolbox**

Have you ever encountered a problem you had no clue how to solve, or a complex project you didn't know how to start? The ability to produce solutions to difficult problems and projects is in high demand. Engineers are renown for this ability, and this course will teach you the methodology and tools they use, which can actually be applied to various career fields. Using a variety of activities, this class will delve into problem-solving theory and its application to a variety of problems. We'll deal with how to make simplifying assumptions, to apply constraints to problems, and to use estimation to improve your results. We'll also explore ways to evaluate solutions through deep analysis and critical thinking. Fun projects and competitions will help you learn to practically apply those concepts to various situations.

**Global Perspectives of the 21st Century World: A Cultural Investigation Beyond Borders**

Imagine the world around you—what do you know about it? Who can you communicate with? What are the ways in which people your age interpret the world and live their everyday life? In this course, we will complete activities to investigate the diversity that exists across the globe and discuss our thoughts and findings while focusing on various topics, such as language, traditions, music, art, film, and beyond! Though you won't have to travel very far, you will be able to interact with the mosaic of cultures and traditions from near and far that make up the 21st century world.

**Periodic Explorations**

What's your first impression when you see the periodic table: Intimidating? Fascinating? Facts to be memorized for a test? Most chemists will be happy to tell you that the periodic table represents an amazing summary of the building blocks of matter that make up the world around us. In this hands-on course, you will discover a variety of chemical reactions that help us understand various patterns and trends in the periodic table. We will also study the scientists who made important contributions to the table, from Lavoisier and Mendeleev to Seaborg and Hofmann. Both future chemists and non-scientists will find something to capture their interest. You'll go back to "elementary" school in this course as you explore the periodic table!

More choices are on the next page!
Podcasting: Hear All about It!

Podcasting has become one of the best ways for anyone to tell a story, to make a point, or to take a stand. In this class, students will learn all about the background and nuances of what a podcast is; find/listen to podcasts about their favorite topics; discuss what makes a good podcast; and learn how to record, produce, and release a podcast for an audience of their choice. Grab the microphone and say what you want people to hear and create one of the many stories that are out there just waiting to be heard!

This Rough Power: Reading and Writing Science Fiction

Science fiction (SF) has been called many things, such as the literature of ideas, 90 percent rubbish, and the successor to the Gothic. The genre includes everything from Star Trek to Eternal Sunshine of the Spotless Mind to Neuromancer to The Island of Dr. Moreau, collecting under one name a collage of works that, at first glance, have almost nothing in common with each other. The enormous area enclosed by SF—and the constant efforts of artists to expand it—suggests the richness at the heart of the question SF usually attempts to answer: “What if?” We’ll engage this question by examining how changes in technology (social, industrial, practical) change both our lives and the stories we tell about them. To that end, we’ll combine experiences of short-form SF works, experiments in how we use technology, and set out on our own writing projects. Over the course of the class, each student will develop an understanding of a few touchstones in the field of SF, the history of science, and the craft of writing. They will finish with new tools for interdisciplinary thinking, a new body of knowledge about the world, and a draft of their own creative project—likely a short story or screenplay.

Social Inequalities and Popular Culture

What do Beyoncé, Star Wars, and Snapchat have in common? They are all rich sites for studying our society! Popular culture is all around us, reflecting the social forces that move and shape our lives. In this course, we put pop culture under the lens of sociology, exploring how music, television, the Internet, and more can illuminate the structure of social inequalities. Through our readings, discussions, and exploratory projects, we will learn to critically analyze the world around us while developing answers to central questions that motivate much sociological research: what does society look like, why does it look that way, and who does it benefit?

The War to End All Wars: World War I Technology

Nearly 100 years ago, technology had a huge impact on the events of World War I. This technology helped to shape the outcome of the war as well as world events of the next century. Students will not only learn the impact of that technology, but also attempt to make similar technology using basic, everyday items using the scientific method and STEAM approaches. The culminating event will be a hands-on museum experience where the students, as docents, will share their creations along with WWI labels.