MSSM Summer Camp
Maine School of Science and Mathematics

2021 Course Selections
Boys' Weeks

Popsicle Stick Engineering
Instructor: Mr. Ryan McDonald

Learn various uses for popsicle sticks. We end the week building bridges to see who can build one the farthest, the strongest, or the best looking. But you can't just use all the sticks, there are a limited number.

Let's Play Board Games
Instructor: Mrs. Nicole Karod

Do you like playing board games? Join this class to examine board games and the math and strategies behind them. What makes a good game? What types of games are there? At the end of the week not only will you know about games, but you'll also have the opportunity to create your own board game to bring home and share with your friends.

Calculus in a Week: Holy Smokes!
Instructor: Mr. James Robertson

We are going to blast through calculus in a week! In this whirlwind tour of mathematics, we are going to take a few functions and learn how to take limits, derivatives and integrals. Don't know what those are? You will at the end of the week!

$$f'(3) = \lim_{h \to 0} \frac{(3+h)^2 - 3^2}{h}$$
$$= \lim_{h \to 0} \frac{9 + 6h + h^2 - 9}{h}$$
$$= \lim_{h \to 0} \frac{6h + h^2}{h}$$
$$= \lim (6 + h)$$

Locked in a Room at MSSM
Instructor: Mrs. Nicole Karod

Are you a problem solver? Do you like challenges? In this class we will look at escape rooms, how to design them, what makes them interesting, and how to crack them! Come join us for some fun and see if you can escape a locked room at MSSM.

Minecraft Mars
Instructor: Mr Chris Beckwith

Campers will assume the roles of colonists on a mission to terraform Mars and build a habitable base. Working together on the same world in a modified version of Minecraft, they will become specialists as they solve problems to bring food, oxygen, solar power, and shelter to their colony. Along the way, they will learn about the characteristics of the Red Planet that may help or hinder their mission, as well as Earth's current Mars exploration.

Computer Programming Level 1
Instructor: Mr. Alex Hennings

No experience necessary. This will cover the basics of computer programming to design and develop a simple game. We will be using a language called Processing (based on Java) which is great for making interactive animations. Students will go home with their project and the tools to continue working.


LEGO Robotics
Instructor: Mr. Alex Hennings

Work in small teams to design, build, and test a robot. We will be using Lego EV3 kits to overcome obstacles and outsmart opponents. The exact challenge is up to the students to pick but the instructor will ensure that it is, in fact, a challenge. There will be a focus on problem solving, teamwork and innovation. This course is 100% hands-on.

Rube Goldberg Machines
Instructor: Mr. Ryan McDonald

You've seen his ridiculous machines that go the long way to open a door or pop a balloon. Now is your chance to try to build one using only a few materials.
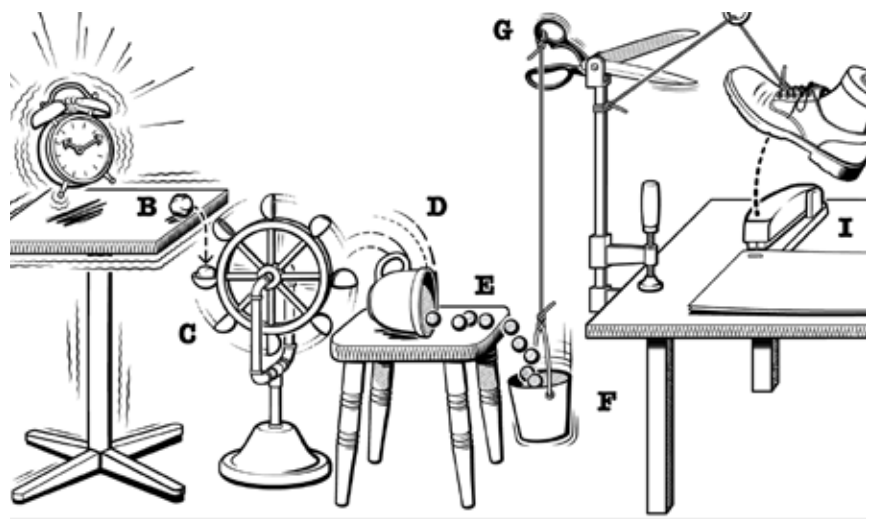
Rubik's Cube
Instructor: James Robertson

We will look at the math behind the cube, the algorithms, and you will learn how to solve the cube! Then students will choose a mosaic for the class to work on and by the end of the course we will have made a large mosaic made entirely from Rubik's cubes!

3D Printing
Instructor: Mr. Chris Beckwith

Students will learn the best strategies for designing 3D models that can be printed using 3D printers. If you can imagine it, you can create it. Campers looking for an additional challenge may choose to incorporate battery-powered LEDs into their designs!