



RENAISSANCE KIDS

Workshop Descriptions

Maker Workshop

We will bring our mobile makerspace to you! We will bring the materials, tools, and challenges to your students. Together, we will learn engineering and design concepts while we build together to solve our challenge. Bonus - students take home their creations!

Robot Creation

Together we will build the Owi Super Solar Recycler robot! We will learn about electronics, engineering, and the basic principles of robotics. Bonus - Students take home their robots! This class has a materials fee of \$15-\$20 per student.

Intro to Robotics

Together we will learn about the Mbot robot! The Mbot is a programmable robot with many features to experience and learn about. The robot can perform line following, obstacle avoidance, and other fun and interesting tasks. We will learn how it operates using sensors and its programming to complete its goals.

Intro to Robot Programming

Together we will take what we learned in intro to robotics to the next level. We will dive deeper into the the Mbot's features and abilities with hands on challenges and problems to solve. We will use iPads to code the robot. No experience is necessary, we just request a willingness to listen, learn, and have fun!

Simple Machines Challenge

Simple machines are amazing and they make work so much easier for us all! There are 6 simple machines - wedge, wheel and axle, screw, lever, pulley, and inclined plane. Join us to learn how much easier work can be by doing hands on experiments, and creating machines to solve various real world problems. Bonus, students take home their creations!

Green Screen Animation

Green screen technology helps create many of the special effects we see on television and in the movies! Using iPads, and some helpful applications, we will learn all about green screen technology. We will also learn how to create simple animated characters. When we combine animation and green screen, we can put ourselves into our creations. Bonus, students take home their videos.

Crazy Catapults

Catapults are a great way to learn about physics, and it's a lot of fun to launch objects through the air! Students will build catapults and learn about trajectory, precision, accuracy, and the various forces that affect the flight of their projectiles! Bonus, students take home their catapults.

Electronics - Simple Circuits

In this workshop we will learn about creative thinking, problem solving, and circuit wiring concepts such as parallel and series circuits. We will perform experiments while we build our projects. Bonus, students will be able to take home the electronics project that they built.

Bridges - Strong Structures

Students will learn about the different types of bridges, engineering techniques, and they will be challenged to build their own bridge that can hold our test weights! Bonus, they get to take home their creations!

Flight Test Challenge

We will learn all about the physics of flight by studying lift, thrust, and drag. As we learn about these concepts, we will build, experiment, and create flying machines. Bonus - you will be able to take your flying machine home!

Crash Test Challenge

While we build rubber band race cars, we will learn about the engineering and design process. We will also learn about potential and kinetic energy. After we build our cars, we will try to stop inertia by building a protective container for a delicate passengers. Bonus, students take home their cars!

Magnetic Magic

Magnets are amazing and fun, we will learn all about how they are formed and used in the real world, we will also perform fun and hands on experiments with magnets. Students will take home the crafts that they build.

Amazing Earth Science

We will learn about different aspects of Earth Science such as Geology, Meteorology, Oceanography, and Astronomy while experimenting, creating, and having lots of hands on science fun! Bonus, students will take home their creations!

Animal Adaptations

We will learn how animals have adapted to survive extreme climates such as the desert, arctic, and the deep sea! We will conduct fun experiments to learn and study these adaptations. We will also create take home projects that demonstrate these wonderful creatures.

Mechanical Creatures

We will combine art and engineering to build amazing mechanical creatures. Students will learn various building techniques, the engineering design process, and display their artistic skills - bonus, students take home their creations!

Creative Chemistry

We will learn all about being chemists by conducting fun and exciting experiments! We will create chemical reactions, experiment with different densities, and learn about other important aspects of the field of chemistry!

Rocket Science

We will learn all about the physics involved in temporarily breaking the bonds of gravity and launching rockets toward outer space! We will use an air powered rocket launcher created by a company right here in New Hampshire and send skyward the paper rockets we create. They will travel over 200 feet into the air! Bonus - Students can take home their rockets.

