



Fall Break 2018 October 4th & 5th Programs

Learn. Build. Play.

Launch, shoot, fly and learn with our Engaging, Hands-On STEM Camps! Register [Here](#).

Thursday, October 4th, 2018 Morning:

Camp Chemistry II Grades 3-5, Thur, 10/4 9am-12:30pm
Kerbal Space Grades 5+, Thur, 10/4 9am-12:30pm
Maker Mania Grades 3+, Thur, 10/4 9am-12:30pm
OzoCoding Grades 1-3, Thur, 10/4 9am-12:30pm

Thursday, October 4th, 2018 Afternoon:

Camp Chemistry I Grades 1-3, Thur, 10/4 1:30pm-5pm
DI: 3D Printing Grades 5+, Thur, 10/4 1:30pm-5pm
Lego Robo Sumo Grades 3+, Thur, 10/4 1:30pm-5pm
Maker Mania Grades 3+, Thur, 10/4 1:30pm-5pm
OzoCoding Grades 1-3, Thur, 10/4 1:30pm-5pm

See below for class descriptions, or go to our website for full class descriptions and to register at NewtonsAttic.org.

Full-Day and Half-Day Unique STEM Camps for boys and girls ages 6-16 October 4th and 5th, 2018

- ▶ Most Camps are half-day and two half-days can be combined for a full day with a supervised lunch.
- ▶ Half-day sessions from \$49.50 - \$59.50.
- ▶ We will have snacks for purchase, or you may send your child with his/her own. Please send a sack lunch if they are here for the whole day.
- ▶ Small class sizes and personalized instruction.
- ▶ Full-day camps: 9:00 am – 5:00 pm • Half-day mornings: 9:00 am – 12:30 pm • Half-day afternoons: 1:30–5:00 pm.
- ▶ Flexible drop off and pick up 30 minutes before and after class at no charge. Earlier or later times by request for \$5 per half hour, per child, per day.

Friday, October 5th, 2018 Morning:

Camp Chemistry II Grades 3-5, Fri, 10/5 9am-12:30pm
Kerbal Space Grades 5+, Fri, 10/5 9am-12:30pm
OzoCoding Grades 1-3, Fri, 10/5 9am-12:30pm

Thursday, October 4th, 2018 Afternoon:

Camp Chemistry I Grades 1-3, Fri, 10/5h 1:30pm-5pm
DI: 3D Printing Grades 5+, Fri, 10/5 1:30pm-5pm
Lego Robo Sumo Grades 3+, Fri, 10/5 1:30pm-5pm
OzoCoding Grades 1-3, Fri, 10/5 1:30pm-5pm

Friday, October 5th, 2018 All day:

Camp Catapult Grades 3+, Fri, 10/5 9am-5pm

See below for class descriptions, or go to our website for full class descriptions and to register at NewtonsAttic.org.

Camp Catapult (Grades 3+)

Siege Alert! Look out, it's time for flying tennis balls, eggs and bags of Jell-O as this camp offers participants the opportunity to design and build a table top size catapult or trebuchet. Students start with a kit of wood, steel, aluminum and plastic parts and create their catapult. When students finish their inventions, they field-test them in a fun and exciting activity. (This class is an all day class. Please send your child with a lunch. There will also be snacks for purchase in the break room or you may bring your own.)

Camp Chemistry I (Grades 1st-3rd)

Formulated for the youngest of Newton's Attic participants, Chemistry I offers all the fun of our older kids' chemistry camp tailored to 1st through 3rd graders. (See description below.) Chemistry I is going to be just the right mix of fun and learning. (We will do different experiments each day of fall break.)

Camp Chemistry II (Grades 3rd – 5th)

Glowing water, blue and red flames, and mountains of oozing foam are everyday occurrences in Camp Chemistry at Newton's Attic. This camp will expose students to the fun, and sometimes, bizarre world of chemistry, chemical reactions and exciting things that can be made with the right mixture of knowledge, chemicals and materials. So, let's all put on our safety glasses, lab aprons and rubber gloves and see what strange potions we can concoct. (We will do different experiments each day of fall break.)

Digital Inventors: 3D Printing (Grades 5+)

Dream, design, and build your invention using our 3D printing lab in this engineering design focused camp. Students will get an introduction to professional 3D design software where they can design items of their own to be printed. During this process they will learn tips and tricks to make their design easier to produce using additive manufacturing (the technical term for 3D printing). Students who have suitable designs can print an item on our high-end full color 3D printer. *Note – 3D printers are not fast. The size of the objects we can print will be limited by the available time.

Kerbal Space (Grades 5+)

In this computer based camp, students will learn how to use the game software to create and manage their own mini-space program. They construct virtual rockets, launch them into orbit and attempt to do a variety of NASA like activities like dock with a space station, land on the moon, or attempt to mine an asteroid. Students must learn and apply some basic physics, math, engineering and even a little orbital mechanics as they attempt to become virtual test pilots and astronauts. It's not just a kid's computer game, it actually IS rocket science.

Lego Robo Sumo (Grades 3+)

Participants will build Sumo-style Lego robots, which will be remote controlled as the robots battle it out in the Sumo-bot arena. Instructor will supply Android devices if students don't have their own. Some build experience is beneficial but not required, and no programming experience is required. (We will do different activities each day of fall break.)

Maker Mania (Grades 3+)

This structured, supervised class introduces students to the engineering process and hand and power tool use. Students work in the shop on pre-designated, age-appropriate projects. No experience is required, but please make sure your child is interested in and comfortable with learning to build projects and use tools before registering him or her for this class. (We will do different projects each day of fall break.)

OzoCoding (Grades 1st-3rd)

This is a half day class that can be taken either mornings or afternoons on Thursday and Friday, but should not be taken both morning and afternoon on the same day.

Games, mazes, robots ... OH MY! OzoCoding 1 will introduce students to the concepts of coding at a young age. Coding will help students make sense of problems, reason abstractly and quantitatively, and use logic reasoning skills to complete tasks. The students will also work collaboratively to program their robots to complete several mazes.

Please see our website for full class descriptions.

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