

# Zaniac STEAM 2020 School Workshops

*Back to School Special: Receive a 20% discount for booking a STEAM workshop by Sept 30. Workshop must be scheduled prior to Dec 20, 2019! Discount applies only to the first workshop booked.*



## SCIENTISTS

**Crazy Chemistry** We'll use the scientific method to explore the properties of solids, liquids and gasses as we learn to swirl, pour and mix like a scientist!

**Grade Level:** 2-4 **NC Essential Standards:** 2.P.2, 3.P.2, 4.P.2

**Magnet Magic** Explore the forces of magnets through experiments that demonstrate pushes and pulls. What attracts? What doesn't? Can magnets float? Can you paint with a magnet?

**Grade Level:** K-4 **NC Essential Standards:** K.P.1, 1.P.1 3.P.1, 4.P.1

**The Sky is Falling! Exploring Rain, Snow, Fog and Tornadoes** Come and explore the power of our weather. Learn what a meteorologist looks at to determine our weather. How are rain, sleet snow and hail created? What causes lightning? How is a tornado formed?

**Grade Level:** K-3 **NC Essential Standards:** K.E.1, 2.E.1

**Mother Nature's Fury** Explore the power of plate tectonics on our twisting, shaking, moving earth as we understand the power of hurricanes, earthquakes and volcanoes.

**Grade Level:** K-3 **NC Essential Standards:** K.E.1, 3.E.2

**Up, Up and Away** Ready, set, take-off! Why do planes fly? How are rockets launched? How were catapults used? We take a look at aerodynamics and propulsion as we make our own planes.

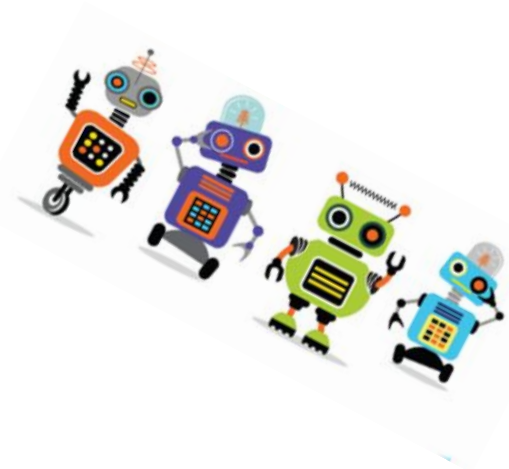
**Grade Level:** 1-5 **NC Essential Standards:** 1.P.1, 3.P.1, 4.P.1, 5.P.1

**What's Out There?** Journey with us as we travel through our solar system exploring relative distance between planets and the differences of planets. Students will take home a solar system in their pocket!

**Grade Level:** 1-5 **NC Essential Standards:** 1.E.1, 3.E.1, 4.E.1, 5.E.1

**Mission to Mars** How do NASA scientists use rovers to explore the surface of Mars? We will learn how to code LEGO EV3 robots to explore a model of Mars surface.

**Grade Level:** 1-5 **NC Essential Standards:** 1.E.1, 3.E.1, 4.E.1, 5.E.1



**Newton's Lab: The Physics Behind Roller Coasters** Roller coasters offer fun examples of several physics principles, including energy and Newton's laws. Join us to take a closer look at the physics behind these extreme rides!

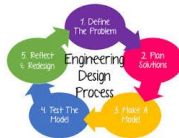
**Grade Level:** 3-8 **NC Essential Standards:** TT. 1 (all grades), 3.P.1, 3.P.3, 5.P.1, 7.P.1



## CODERS

**Scratch** Participants will work as teams as they learn to use Scratch to code their own interactive stories, animations and games.

**Grade Level:** 3-8 **NC Essential Standards:** TT.1 (all grades), 5.C.1, 5.AE.1, 7.ML.1 TT.1



## ENGINEERS

**Simple Machines** Get an introduction to levers, inclined planes, pulleys, screws, and complete challenges through building motorized mechanisms in teams.

**Grade Level:** 2-8 **NC Essential Standards:** TT.1 (all grades), 5.P.1, 7.P.1-2

**It's Electric - Tinkering Into Circuits** Explore electrical engineering through hands-on innovation using Snap Circuits, a system of modules that magnetically snap together to build projects ranging from flashlights to synthesizers. Learn about basic inputs, outputs, analogs, electricity, and more.

**Grade Level:** 1-8 **NC Essential Standards:** 1.P.1, 3.P.3, 4.P.3, 6.P.1, 7.P.2

**How Fast, How Far?** Program a robot to move forward, and then explore variations such as moving different distances at different speeds. The lesson will begin by introducing a tiny robot, Ozobot. We will then program our robots to navigate on a path.

**Grade Level:** K-8 **NC Essential Standards:** TT.1 (all grades), 7.P.1-2

### Workshop Costs:

- \$175.00 for the first one-hour workshop (max. 20 students, add'l students \$5 each, workshop size not to exceed 30)
- \$150.00 for each additional one-hour workshop on the same day.
- *Workshop costs include all supplies and materials. We are pleased to offer free travel to schools within Buncombe and Henderson counties.*

**Contact:** Judi Donofrio, Outreach Coordinator: [judi.donofrio@zaniaclearning.com](mailto:judi.donofrio@zaniaclearning.com) or 630-335-0001