# IN HOUSE STEAM FIELD TRIPS

We offer amazing Art, Science, Technology and Robotics Field Trips. Please choose from the options below.

#### SCIENCE

### **GRADES K-1**

**Wacky Science Magic:** Great for large groups. Can be done as a demo) Chemical reactions, Inertia magic, can that comes when called, Egg in Jar

**Don't Bug Me:** Learn about butterflies, go through a metamorphosis, Look at the world through compound eyes

**Spider Mania:** Explore spiders as we make webs, learn about compound eyes, make a spider pet and use silly string to learn about spinnerets.

**Space Out:** (Great for large or small groups. Can be done as a demo). Needs to be done outside! Make Alka-Seltzer powered rockets and balloon rockets. Learn about Inertia, and potential and kinetic energy as we blast off Stomp Rockets.

**Who Lived Here:** Blast Off a volcano, make Magic Mud, Make a fossil print. Optional add on: Fossil Dig \$6/child.

**Goo, Gas, Great Balls of Fire:** Explore Dry Ice, Chemical reactions, and Gac. See our amazing elephant toothpaste reaction.

#### GRADES 2-6 SUBJECT MATTER EXPLANATIONS WILL BE AGE APPROPRIATE.

Light it up: Learn about series and parallel circuits, make an electromagnet

Magical Mysteries: (Great for large or small groups. Can be done as a demo) Learn about Potential and Kinetic with our magical can that comes when called, explore vacuums and air pressure with our egg in a jar and stick breaking paper. Explore inertia with our ball in cup. Investigate the mysteries of Acids and Bases with color changing chemical reactions.

**Goo, Gas, Great Balls of Fire:** (Great for large or small groups. Can be done as a demo) Explore sublimation with a series of amazing Dry Ice experiments. Learn about polymers as we make GAC and put a needle through a balloon. Make a big explosion with Big Ooze (outside) or Elephant toothpaste (inside)

Action and Reaction: Explore Newton's laws with Balls and Tracks, Colliding balls and Newton's Car

**Blast Off!** Great for large groups. Can be done as a demo) Needs to be done outside. Rockets Away! Make Alka-Seltzer powered rockets, Balloon rockets and Estes rockets.

**Microscopic Exploration:** Learn how to use a microscope, view and make slides and create a GAC Cell model to take home.

**Structural Engineering:** Make Paper Bridges and Suspension Bridges

### TECHNOLOGY AND ROBOTICS

**Lego** ® **Education WeDo** ™ **Robots Ages K-1st:** Students will discover the world of Drag and Drop programming as they build and program fun Safari animals such as a Lion that roars or a Monkey that can drum out a great beat.

**Power Car: 2nd-5th grades** Using Lego \*Simple and Motorized Mechanisms Students will learn about gear transmission, drivers and followers, gearing up and gearing down while building a cool car to race! Will the car go faster if we change the size of the tires and how would this affect the outcome of a race?

**Lego** MINDSTORMS Education NXT 3rd-5th grades: Using Sensors and Motors the students will build a working robot, that will then be programmed to complete a specific challenge.

## ART FIELD TRIP OPTIONS

<u>Eric Carl Collages</u> (Grades 2-6). Students will make animals inspired by Eric Carl's illustrations. They will see some examples of his work and try to create their own interpretation by combining scraps of colored paper to make a

creative collage

<u>Color Wheel Turtle</u> (Grades pre-k - 1). Students will create a mandala with a paper plate using principles of the color wheel. The will learn about primary, secondary, and complementary colors. After the mandala is complete, they will attach pre-cut appendages to make their color wheel look like a turtle.

Make Your Own Logo: (All grades). Students will learn about symbolism and color theory to design their own logo for their first and last names. They will brainstorm things that represent them individually and create a logo that reflects those things for their first name. They will then think about what represents their family or their life in general and create a logo for their last name.



