

## 2017 Courses

### **4 years old or entering K: WIGGLY WORMS**

Do worms like light or dark? Are they wet or dry? Can they smell, hear or see? How many hearts does an earthworm have? Explore the micro world of these recyclers and how they help to balance nature. While our main focus will be on phylum Annelida, better known as earth worms, we will learn about all three types of worms: segmented, flat and round. We will create a worm habitat, measure worms, observe worms and maybe even eat some worms!

### **Entering 1st or 2nd Grades: IT'S ELECTRIC**

What travels at the speed of light and can be made by wind, water, the sun and even animal poop? Electricity! Investigate the different types of electricity and how they work. Learn more about how these types of power are used by people. Can you create your own static electricity? Simulate lightning to see the spark and learn more about why it occurs. Explore conductors and insulators by building circuits using different materials like wires, batteries and even playdough. Use littleBits to create an electrical invention. Spark your curiosity and scientific skills!

### **Entering 3rd or 4th Grades: Brilliant biologists**

Your body has trillions of them, they've been around for over 3 billion years and they come in many shapes and sizes. Why yes, cells, of course! Let's study these microscopic structural and functional units of an organism. What do plant and animal cells look like? If organelles could talk, what would they say? We'll analyze the nature of the relationships between plant and animal cells and learn the functions of each part. How is a eukaryotic cell like a factory? How do cell parts compare to a thriving community? Let's swab our cheek and observe our own DNA under a microscope. How will those cells compare with the cells in an onion skin? Let's extract deoxyribonucleic acid from a banana. Work with other CFK biologists and report your findings to the class. We'll make our own models of plant and animal cells, even edible ones! Get ready to have an exCELLent time as we CELL-eborate science!

### **Entering 4th or 5th Grades: Riveting reactions**

Did you know that if you lined up one million atoms, they would only be as wide as one of your hairs!? How can something so small be so powerful? Chemical reactions are happening all around us. Why does a nail turn rusty when it's left out in the rain? What causes a banana to turn brown? How strong of an acid do you have in your stomach? Discover how different elements of the periodic table interact and which ones surround us every day. Create Alka-Seltzer rockets as we see carbon dioxide in action. Observe an exothermic reaction as we create "elephant toothpaste." Watch soda separate as its phosphoric acid attaches to milk. Through our investigations, you will feel like a magician as you uncover the mystery of chemical reactions. Be a part of the riveting discoveries as we bond together.