

2013 COURSES

The courses allow children with exceptional intellectual ability to extend their existing fund of knowledge through first-hand experimentation and creative experiences.

4 years old or entering K MIGHTY METEOROLOGY



Is the water in our bathtubs recycled from millions of years ago when dinosaurs roamed the Earth? What exactly is the water cycle and what role does it play in the development of clouds and precipitation? How are Cumulus clouds different from Stratus clouds? We'll construct a cloud finder and identify the types of clouds in our atmosphere throughout the week. We'll record and graph the results. How much rain can a cloud hold? Is our wacky weather related to the change of seasons? Be the "eye" in our hurricane and create a spiral in a bottle as we investigate natural storms. Join us as we discover the science behind the weather that impacts us every day. Boogie on down and be a part of the fun!

Entering K or 1st grade AMAZING ANURA



Which amphibians use their eyes to swallow and their skin to breathe? The ones that can jump 40 times their length, catch a meal with their sticky tongues and stay underwater for an unlimited amount of time—frogs! Which frogs can survive in the arctic? Which frogs live in the desert? What special adaptations do frogs have in order to withstand the particular climates in which they live? What's the difference between frogs and toads? We'll explore the life stages of a frog and record our findings. What role have frogs played in ancient cultures and history? Can they tell us about the health of our Earth? We'll make models of frogs and build healthy habitats. What can we find on our Frog Hunt? Join us for an *un-froggetable time* as we learn about amazing Anura!

Entering 1st or 2nd grades MOTION MADNESS



Did Isaac Newton discover the laws of gravity by watching apples fall from a tree? Get ready to explore the laws of motion--first hand! What keeps us from floating into space? How were trebuchets used in the Middle Ages? Which materials make the best catapults today? We will discover gravity, acceleration, friction, and velocity. We'll design and create our own catapults and put them to the test for distance and durability. We'll investigate and experiment with the use of pendulums in clocks. Are you ready to launch balloon rockets and build rollercoasters? We'll work collaboratively to build reaction racers. Which teams' car will win the race? We'll find out what causes an object to stay in motion. How will friction have an impact? Join us as we "Move-it, Move-it" and engage in Newton's laws of motion.

Entering 2nd or 3rd grades SPECTACULAR SPACE



Are you ready to go beyond our planet and explore all of the phenomenal facts that our universe has to offer? Are you fascinated by space? Math? Engineering? How creative are you? Don your space helmet and join us for some exciting exploration! How do black holes grow in size? In what galaxy was the largest black hole found? Why do some quasars give off radio waves? How can we measure the distance between stars? Why do comets have tails? Can you imagine what a city might look like if one existed on the moon? Would you like to take part in a mock space station and discover unique facts about astronauts in space? We'll create craters, construct constellation art and make model planets. This course will take you on a week of wonder and amazement as you learn about space. Join in the fun as we learn about our awesome universe!

Entering 3rd or 4th grades OUTSTANDING ORNITHOLOGY



How do birds fly? How far can a bird travel in one year? Why are some birds so colorful? Why do birds sing? In what kinds of habitats do birds like to live? Why are there so many species of birds? In this course, we will learn about this unique group of animals that has adapted to life in the air. We will become ornithologists as we study the bizarre world of birds and find out what life in flight is really like. Not only will we take time to learn how owls "see" at night, or investigate why birds build so many different kinds of nests, but we will explore and observe

first-hand how birds have learned to live in the big city. Join us as we discover why the life of birds is so outstanding!

Entering 4th or 5th grades
ENGAGING ENGINEERING



How does the world work? How do buildings stand up? How do architects make and use technology? Does it interest you to be a "do it yourself-er?" Would you like to design, create and test a structure? What do Frank Lloyd Wright, Alexandre Eiffel and Robert Mills have in common? We will examine several different types of designs and discover how the forces of tension, compression, bending, torsion, and shear have an impact. Are there other factors that engineers consider? What is the tallest free-standing tower we can build using a limited supply of materials? Which materials make the most durable buildings? Let's be architects for the week and showcase our work on Friday! Refine your problem solving skills and discover how things work...the possibilities are endless!!!