

## 2016 NCSO Elementary Event Descriptions

### **3, 2, 1, Blast Off!** (Science as Inquiry)

Prior to the tournament, teams construct two rockets designed to stay aloft for the greatest amount of time. Rockets are made from 2 liter soda bottles and pressurized with air and water. In 2016, parachutes are allowed and rockets will be launched at 60 psi.

### **All Charged Up** (2.P.2, 3.P.2, 3.P.3, 4.P.2, 4.P.3, 5.P.3, 6.P.3)

Teams will be assessed on their knowledge of magnets, magnetism & electricity. Team members may be required to know the parts of a circuit, identify positive and negative charges and understand how an incandescent light bulb works.

### **Animal Adaptations** (2.L.1, 4.L.1)

Teams will be assessed on their knowledge of various animal adaptations and how those adaptations benefit the animals.

### **Backyard Biologist** (1.E.2, 1.L.1, 2.L.1, 3.L.2, 6.L.1)

Teams will be assessed on their knowledge of living organisms that they may encounter in their own backyard. In 2016, the focus will be on trees, plants, and insects. Teams will be required to identify organisms from a provided list and know about the habitat and conditions required for growth of the organisms and which ones are North Carolina state symbols.

### **Data Crunchers** (Measurement & Data, Science as Inquiry)

Teams will demonstrate their understanding of data collected from scientific experiments. Teams will need to be able to graph data and interpret graphs to make observations about trends in the data represented. Teams will also need to be able to estimate and measure basic units of length, weight, volume, and temperature and perform calculations of area, perimeter, volume, addition, subtraction, multiplication, & division.

### **Describe It, Build It** (Science as Inquiry)

Teams will be judged on their ability to effectively communicate by having one team member write a description of how to build a device and having his or her partner re-construct the device from raw materials.

### **First in Flight** (Science as Inquiry)

Teams will practice building paper airplanes to fly the farthest in the straightest line possible.

### **Fossil Frenzy** (4.E.2)

Teams will be assessed on their knowledge of geologic time, fossils and the fossilization process.

### **Landformers** (3.E.2)

Teams will identify landforms, describe their characteristics, explain how they were formed, and tell where certain landforms can be found.

### **Marshmallow Catapult** (Science as Inquiry)

Teams will build in advance a device constructed out of specified materials to launch a marshmallow at a target placed on the floor. The goal is to land as close to the center of the target as possible.

**Newton's Notions** (1.P.1, 3.P.1,4.P.1, 5.P.1)

Teams will be assessed on their knowledge of forces and motion.

**Pasta Tower** (Science as Inquiry, 4.P.2)

Teams will design and build ahead of time the lightest tower from only pasta and glue, with the highest structural efficiency possible (lightest tower that holds the most weight, up to 10 kg). Each team may bring and enter only one tower.

**Planet Protectors** (4.L.1)

Teams will be assessed on their knowledge of environmental issues about recycling, renewable and non-renewable resources, point and nonpoint pollution, as well as best management practices for the environment.

**Pump it Up!** (3.L.1, 4.L.2, 5.L.1)

Teams will demonstrate knowledge of the human Circulatory & Respiratory system.

**Science Sketchers** (Science as Inquiry)

Team members will take turns drawing clues for a set of scientific terms or concepts from across all 3rd - 6th grade science and math objectives for their teammates to guess. Teams of up to 3.

**Sky Quest** – Earth/Moon/Sun (1.E.1, 3.E.1, 4.E.1)

Teams will be tested on their knowledge of the solar system. Possible topics include the sun, moon, planets, rotation and revolution, moon phases, seasons, and identification of constellations/stars based on a provided list.

**STEM Design Challenge by ThermoFisher** (Science as Inquiry)

Teams of 3 will be given a challenge to complete in advance using only K'nex pieces. They must practice designs in advance but build on site.

**Super Sleuths** (3.P.2, 4.P.2, 5.P.2, Science as Inquiry)

Given a mystery scenario, evidence, and a list of possible suspects, teams will be expected to perform a series of tests to draw specific conclusions about the scenario and suspects. The test results along with other evidence will be used to solve the mystery of the scenario. 2016 topics include identifying unknown powders, distinguishing between different types of hair, fur, & fibers, and chromatography.

**Weather Permitting** – (K.E.1, 2.E.1, 5.E.1)

Teams will be assessed on their knowledge of conducting investigations and using appropriate technology to build an understanding of weather and climate with a special focus on everyday weather.