

## 2021 NCSO Elementary Event Descriptions

### **3, 2, 1, Blast Off!** (3.P.1, 5.P.1, Science as Inquiry)

Prior to the tournament, teams will construct up to two rockets designed to keep a standard ping pong ball aloft for the greatest amount of time.

### **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 2021, the focus will be on plants, trees and birds. 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.

### **Bridgearoni** (Science as Inquiry)

The objective of this event is to design and build a bridge, constructed only of pasta and glue, with the greatest structural efficiency. This means building a light, but strong bridge capable of supporting a load of up to 10 kg.

### **Codebusters** (Science as Inquiry)

Teams will decode encrypted messages using cryptanalysis techniques for historical and modern advanced ciphers.

### **Data Crunchers** (Measurement & Data, 5.P.1, NC.4.MD.4, NC.4.NF.2, NC.5.MD.2, NC.6.SP.1-5.)

Teams should be able to create and interpret data tables, bar graphs, line graphs, pie charts, and pictographs and perform simple experiments to collect data, graph their results and make predictions.

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

Technical writing skills are an important part of an engineer or scientist's abilities to communicate precisely and clearly. This event will test a team's ability to effectively communicate by having one team member write a description of how to build a device and having his or her partner construct the device from raw materials using their partner's description.

### **Genes R Us** (2.L.2, 5.L.3)

Teams will demonstrate an understanding of traits that may or may not be inherited, be able to explain why organisms share similarities and differences, and use Punnett squares to predict inheritance patterns of certain characteristics.

### **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.

### **Movers & Shakers** (3.E.2)

Teams will be assessed on their knowledge of plate tectonics, earthquakes, volcanoes and related land formations.

### **ProGamers** (Information & Technology)

Teams of students will use the Scratch 3.0 programming language to recreate a game that is shown to them without the code.

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

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

**Ramp and Roll** (3.P.1, 5.P.1)

Teams will build a ramp and vehicle to travel a certain distance and stop as close to the finish point.

**Rock Star** (3.E.2, 4.P.2)

Teams will demonstrate their knowledge of rocks & minerals, the rock cycle and geologic maps.

**Science Charades** (Science as Inquiry)

Team members will take turns acting out clues for scientific terms or concepts from across all Essential Standards for Elementary Math & Science. Teams of up to 3.

**Sky Quest** (1.E.1, 3.E.1, 4.E.1, 6.E.1)

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

**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.

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

This event will test the team's knowledge of conducting investigations and using appropriate technology to build an understanding of **Everyday Weather**.

**What's the Matter?** (2.P.2, 3.P.2, 4.P.2, 5.P.2, 6.P.2)

Teams will be assessed on their knowledge of the physical properties of matter and the behavior of solids, liquids, and gases before and after they undergo changes or interactions.