2022 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 stay aloft for the greatest amount of time.

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 2022, the focus will be on plants & 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.

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.

Chew the Fat (3.L.1, 4.L.2, 5.L.1)
Teams will demonstrate knowledge of the human digestive tract.

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 and graphs and perform simple experiments to collect data, graph their results, and make predictions.

Describe It, Build It (Science as Inquiry)
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 their partner construct the device from raw materials using that description.

Duct Tape Challenge (Science as Inquiry)
Teams will arrive at the competition and be given a set of materials, including Duct Tape, and a task. They will then have a given amount of time to complete whatever task they are assigned, such as building the tallest tower, widest bridge, most buoyant boat, etc. At the end of the build time, teams will test their structures to determine the winner.

Ecology Experts (3.E.2, 4.P.1, 5.L.2, 6.L.2)
Teams will be assessed on their knowledge of Marine, Freshwater, Estuary, and Arctic ecosystems and biomes. Topics include but are not limited to the ecology of the biomes and the roles and interactions of living and nonliving things within them.

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.

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 a device constructed out of specified materials in advance 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 (3.P.1 5.P.1)
Teams will be assessed on their knowledge of simple machines, forces, and motion.

Science Password (Science as Inquiry)
Team members will take turns giving clues and guessing 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.

STEM Design Challenge (Science as Inquiry)
Teams of up to 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.

Weather Permitting – (K.E.1, 2.E.1, 5.E.1)
Teams will be assessed on their knowledge of climate and the factors that affect it around the world.