## **Division B Event Descriptions for 2018**

Anatomy & Physiology (B/C) - Teams will be tested on their knowledge of anatomy and health concepts including skeletal, muscular, and integumentary systems.

Battery Buggy (B) - Teams will construct a vehicle that uses electrical energy as its sole means of propulsion, quickly travels a specified distance, and stops as close as possible to the Finish Point.

Crime Busters (B) - Given a scenario, a collection of evidence, and possible suspects, students will perform a series of tests. The test results along with other evidence will be used to solve a crime.

Disease Detective (B/C) - Students will use their investigative skills in the scientific study of disease, injury, health and disability in populations or groups of people with a focus on Population Growth.

Dynamic Planet (B/C) - Teams will work at stations that display a variety of earth science materials and related earth science questions. Content will focus on physical and geological oceanography. Will focus on NGSS Science and Engineering Practices.

Ecology (B/C) - Teams will answer questions involving content knowledge and process skills in the area of ecology and adaptations in featured North American biomes.

Experimental Design (B/C) - Given a set of unknown objects, teams will design, conduct, analyze and write-up an experiment.

Fast Facts (B) - Teams will fill in a grid of terms that begin with a given letter to match given science categories.

Herpetology (B/C) - This event will test knowledge of amphibians, turtles, crocodilians & reptiles.

Hovercraft (B/C) - Competitors may construct a self-propelled air-levitated vehicle with up to two battery-powered motors that turn one propeller each to levitate and move the vehicle down a track. Competitors must also be tested on their knowledge of classic mechanics and related topics.

Meteorology (B) - Teams will use science process skills to demonstrate a multidiscipinary understanding of the Earth systems and anthropogenic factors that influence world climate. Focus on everyday weather.

Microbe Mission (B/C) - Teams will answer questions, solve problems, and analyze data pertaining to microbes.

Mystery Architecture (B) - At the beginning of the event, teams will be given a bag of building materials and instructions for designing and building a device that can be tested.

Optics (B/C) - In this event, competitors must demonstrate knowledge and process skills needed to solve

problems and answer questions regarding all types and areas of waves and wave motion.

Potions and Poisons (B) - This event is about chemical properties and effects of specified toxic and therapeutic chemical substances, with a focus on household and environmental toxins or poisons.

Road Scholar (B) - Requires the accurate interpretation and understanding of various map features using a variety of road maps, topographic maps, internet-generated maps, or satellite/aerial images.

Rocks and Minerals (B/C) - Teams will demonstrate their knowledge of rocks and minerals.

Roller Coaster (B) - Prior to the competition, teams design, build, and test a roller coaster track to guide a vehicle that uses gravitational potential energy as its sole means of propulsion to travel as close as possible to a target time, while minimizing the height of the vehicle with bonuses for gaps.

Solar System (B) - Students will demonstrate an understanding and knowledge of the geologic characteristics and evolution of the Earth's moon and other rocky bodies of the solar system.

Thermodynamics (B, C) - Teams must construct an insulated device prior to the tournament that is designed to retain heat and complete a written test on thermodynamic concepts.

Towers (B/C) - Prior to the competition, teams will design and build a Tower meeting requirements specified in these rules to achieve the highest structural efficiency.

Wright Stuff (B) - Students will design, build and test two elastic launched gliders capable of the highest time aloft.

Write It/Do It (B/C) - A technical writing exercise where students write a description of a contraption and other students will attempt to recreate it using only the written description.

Math Challenge (B/C) Trial event