## **Division C Event Descriptions for 2017**

Anatomy and Physiology.(B/C) Understand the anatomy and physiology of the human body systems: respiratory, digestive and immune.

Astronomy(C) Teams will demonstrate an understanding of stellar evolution and Type II Supernova Events.

Chemistry Lab.(C) Teams will complete one or more tasks and answer a series of questions involving the science processes of chemistry focused in the areas of Physical Properties and thermodynamics.

Disease Detectives.(B/C) Students will use investigative skills in the scientific study of disease, injury, health and disability in populations or groups of people with a focus on Food Borne Illness.

Dynamic Planet. (B/C) Students will demonstrate an understanding of the large-scale processes affecting the structure of Earth's crust (Tectonics).

Ecology. (B/C) Students 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) This event will determine a participant's ability to design, conduct and report the findings of an experiment conducted on site.

Fermi Questions.(C) Teams provide answers (within an order of magnitude recorded in powers of ten) to a series of Fermi Questions, which are science-related questions that seek fast, rough estimates of a quantity which is either difficult or impossible to measure directly

Forensics (C). Given a scenario and some possible suspects, participants will perform a series of tests which along with other evidence or test results will be used to solve a crime.

Game On.(C) This event will determine a team's ability to design and build an original computer game incorporating the theme and Game type provided to them by the supervisor using the program Scratch.

Helicopters (C). Prior to the tournament teams design, construct and test free flight rubber-powered helicopters to achieve maximum time aloft

Herpetology.(B/C) This event will test knowledge of amphibians and reptiles.

Hovercraft.(B/C) Participants will be tested on their knowledge of classic mechanics and related topics as well as their ability to construct a self-propelled air-levitated vehicle that moves down a track.

Materials Science.(C) Participants will complete lab activities and answer a series of questions related to the materials science of polymers and plastics with an emphasis on chemical structure, reactivity and behavior.

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

Mission Possible.(C) Prior to the competition, participants will design, build, test and document a Rube Goldberg-like device that completes a required Final Task through an optional series of simple machines.

Mousetrap Vehicle.(C) Teams design, build and test a vehicle using one, or two, snap mousetraps as its sole means of propulsion that can push a plastic cup forward, reverse direction, and come to a stop behind the start point.

Optics.(B/C) Teams must participate in an activity involving positioning mirrors to direct a laser beam towards a target and are tested on their knowledge of geometric and physical optics.

Remote Sensing (C). Participants will use remote sensing imagery, data and computational process skills to complete tasks related to climate change processes in the Earth system.

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

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 the rules to achieve the highest structural efficiency.

Write It Do It. (B/C) One student will write a description of an object and how to build it, and then the other student will attempt to construct the object from the description.

Math Challenge (B/C) Trial event