

## **2010 SCIENCE OLYMPIAD EVENT DESCRIPTIONS**

Anatomy - Teams will be tested on their knowledge of anatomy and health concepts including skeletal and muscular systems.

Battery Buggy - 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 center of the finish line.

Bio-Process Lab - Teams will demonstrate biology laboratory skills related to selected topics.

Can't Judge a Powder - Students will test and characterize one pure substance and then, based only on data they collect, answer a series of questions about that substance.

Compute This - Teams will be presented with a problem which requires quantitative data capture from the Internet and the presentation of data in a graphical format.

Disease Detective - This event requires students to apply principles of epidemiology to a published report of a real-life health situation or problem.

Dynamic Planet - Teams will work at stations that display a variety of earth science materials and related earth science questions. (earthquakes/volcanoes)

Ecology - Students will answer questions involving content knowledge and process skills in the area of ecology and adaptation by examining different ecosystems.  
(Grasslands/Taiga)

Elevated Bridge - Teams will design, build & test the lightest bridge to carry a maximum load.

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

Fossils - Students will identify, describe, and classify various specimens.

Junkyard Challenge - Students will partially pre-construct an device with final construction and adaptation onsite to complete a published challenge.

Meteorology - This event involves the use of process skills as applied to meteorology (everyday weather).

Ornithology - This event will test knowledge of North American birds on the official list

Pentathlon - Teams will compete in an academic pentathlon to demonstrate their overall understanding of five major science content areas.

Physics Lab - Teams will demonstrate physics laboratory skills related to selected topics including wind power and alternative energy. Teams will build a blade assembly used to capture wind power and generate voltage.

Road Scholar - Requires the accurate interpretation and understanding of various map features using a variety of road and topographic maps.

Science Crime Busters – Teams will identify the perpetrators of a crime or crimes by using paper chromatography and analysis of unknown solids, liquids, and plastics found at the scene of a crime.

Shock Value - Students will compete in activities involving basic understanding of electricity, magnetism and simple electrical devices.

Solar System - Teams will demonstrate knowledge of the Sun, planets and their satellites, dwarf planets, comets, asteroids, the asteroid belt, meteoroids, Oort Cloud and the Kuiper Belt.

Trajectory - Teams will design, construct, calibrate and operate a device capable of launching a projectile into a target using energy provided by nonmetallic elastic solids.

Wright Stuff - Teams will design and build a propeller propelled aerodynamic device for greatest time aloft.

Write It/Do It - 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.