Science Olympiad B Event Short Descriptions (Grades6 – 9) May 2, 2026 at BSU Boise

Anatomy and Physiology: Participants will be assessed on their understanding of the anatomy and physiology for the Nervous, Special Senses, and Endocrine Systems of the human body.
Boomilever: Teams will design and build a cantilevered beam or truss structure that extends from a vertical Testing Wall and supports a load at a specified distance from the Testing Wall.
Circuit Lab: Participants must complete tasks and answer questions about electricity and magnetism.
Codebusters: Teams will cryptanalyze and decode encrypted messages.
Crime Busters: Given a scenario, a collection of evidence, & possible suspects, students will perform a series of tests. Test results, along with other evidence, will be used to solve a crime & answer questions.
Disease Detectives: Participants will use their investigative skills in the scientific study of disease, injury, health, and disability in populations or groups of people.
Dynamic Planet: Teams will complete tasks related to physical and geological oceanography.
Entomology: Students will be asked to identify insects and selected immature insects by indicated taxonomy order and family, answer questions about insects, and use or construct a dichotomous key.
Experimental Design: This event will determine the participant's ability to design, conduct, and report the findings of an experiment entirely on-site.
Helicopter: Prior to the tournament, teams will construct, collect data on test flights, analyze and optimize free flight rubber-powered helicopters to achieve maximum time aloft.
Heredity: Teams will answer questions, solve problems, and analyze data pertaining to genetics.
Hovercraft: Participants will construct & bring a self-propelled air-levitated vehicle that moves down a track.
Machines: Teams will complete a written test on simple and compound machine concepts & construct a lever-based measuring device prior to the tournament to determine the mass ratios between three test masses.
Meteorology: Teams will use scientific process skills involving data analyses to demonstrate an understanding of the factors that influence Everyday Weather via meteorological data, graphs, charts, and images.
Metric Mastery: Teams will estimate and then measure properties of identical objects, including mass, area, volume, density, force, distance, time, and temperature. Teams will also perform metric unit conversions.
Mission Possible: Prior to the competition, team design, build, test, and document a Rube Goldberg® like device.
Potions and Poisons: 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.
Remote Sensing: Participants will demonstrate an understanding of the basic principles of remote sensing and use imagery, data, and mapping principles to complete tasks related to Earth systems processes.
Rocks and Minerals: Teams will identify and classify rocks and minerals and demonstrate knowledge of how rocks and minerals help to understand geologic processes, interpretation of Earth's history, the development of natural resources.
Scrambler: Teams design, build, and test a mechanical device, which uses the energy from a falling mass to transport an egg along a track as quickly as possible and stop as close to the center of a Terminal Barrier (TB) without breaking the egg.
Solar System: Participants will demonstrate knowledge of planet formation / structure within and beyond the Solar System.
Water Quality: Participants will be assessed on their understanding and evaluation of freshwater aquatic environments.
Write It Do It: One participant will write a description of an object and how to build it. The other participant will attempt to construct the object from this description.

Science Olympiad C Event Short Descriptions (Grades9–12) May 2, 2026 at BSU Boise

Anatomy and Physiology: Teams will be assessed on their understanding of the anatomy and physiology for the Nervous, Special Senses, and Endocrine Systems of the human body.
Astronomy: Teams will demonstrate an understanding of Stellar Evolution From Formation to Destruction.
Boomilever: Teams will design and build a cantilevered beam or truss structure that extends from a vertical Testing Wall and supports a load at a specified distance from the Testing Wall.
Bungee Drop: Each team will design one elastic cord to conduct drops at a given height(s) and attempt to get a weighted bottle as close as possible to, but without touching, a landing surface.
Chemistry Lab: Teams will complete one or more tasks and answer a series of questions involving the Science processes of chemistry, focused in the areas of chemical reactions/stoichiometry and kinetics.
Circuit Lab: Participants must complete tasks and answer questions about electricity and magnetism.
Codebusters: Teams will cryptanalyze and decode encrypted messages using cryptanalysis techniques.
Designer Genes: Teams will answer questions, solve problems, and analyze data pertaining to classic, evolutionary, and molecular genetics.
Disease Detectives: Participants will use their investigative skills in the scientific study of disease, injury, health, and disability in populations or groups of people.
Dynamic Planet: Teams will complete tasks related to physical and geological oceanography.
Electric Vehicle: Teams design, pre-build, and test one vehicle that uses electrical energy as its sole means of propulsion to travel as quickly as possible and stop close to a Target Point.
Engineering CAD: Teams will read a set of engineering drawings and collaborate to CAD parts in Onshape and then incorporate these parts with provided components to create an assembly.
Entomology: Students will be asked to identify insects and selected immature insects by indicated taxonomy order and family, answer questions about insects, and use or construct a dichotomous key.
Experimental Design: This event will determine the participant's ability to design, conduct, and report the findings of an experiment entirely on-site.
Forensics: Given a scenario and some possible suspects, students will perform a series of tests. to solve a crime.
Helicopter: Prior to the tournament, teams will construct, collect data on test flights, analyze and optimize free flight rubber-powered helicopters to achieve maximum time aloft.
Hovercraft: Prior to the competition, participants will design, construct, and calibrate a self-propelled air-levitated vehicle that moves down a track.
Machines: Teams will complete a written test on simple and compound machine concepts and construct a lever-based measuring device prior to the tournament to determine the mass ratios between three test masses.
Materials Science: Teams will complete lab activities and answer a series of questions related to the materials science of nanomaterials with an emphasis on chemical, physical, optical, and mechanical properties of nanomaterials.
Remote Sensing: Participants will use remote sensing imagery, data, and computational process skills to complete tasks related to climate change processes in the Earth system.
Robot Tour: Teams design, build, program, and test one Robotic Vehicle to navigate a track to reach a target at a set amount of time as accurately and efficiently as possible.
Rocks and Minerals: Teams will identify and classify rocks and minerals and demonstrate knowledge of how rocks and minerals help to understand geologic processes, interpretation of Earth's history, the development of natural resources, and use by society.
Water Quality: Participants will be assessed on their understanding and evaluation of freshwater aquatic environments.