2026 NATIONAL SCIENCE OLYMPIAD STANDARDS ALIGNMENT BY EVENT
B DIVISION (MIDDLE SCHOOL; Grades 6-9)

Event	Standards
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.	*MS-LS 1–3*
BOOMILEVER – Teams will design and build a Boomilever meeting requirements specified in these rules to support a minimum load and achieve the highest structural efficiency.	*MS-ETS 1-1, MS-ETS 1-2, MS-ETS 1-3, MS-ETS 1-4*
CIRCUIT LAB – Participants must complete tasks and answer questions about electricity and magnetism.	*MS-PS 2-3, MS-PS 2-5, MS-PS 3-2*
CODEBUSTERS – Teams will cryptanalyze and decode encrypted messages using cryptanalysis techniques for historical and modern advance ciphers.	K-12 Computer Science Framework 6-8 Networks and the Internet
CRIME BUSTERS – 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.	*MS-PS 1–2, MS-PS 1–3, MS-ETS 1-1, MS-ETS 1-2, MS-ETS 1-3*
DISEASE DETECTIVES – Participants will use their investigative skills in the scientific study of disease, injury, health, and disability in populations or groups of people.	*MS-LS 1-5, MS-LS 2-2, MS-LS 2-4, MS-LS 4-4, MS-ESS 3-4, MS-ETS 1-1, MS-ETS 1-2, MS-ETS 1-3*
DYNAMIC PLANET – Participants will complete tasks related to physical and geological oceanography.	*MS-ESS 2-4, MS-ESS 2-6, MS-ESS 3-2, MS-ESS 3-3,*
ENTOMOLOGY – Students will be asked to identify insects and select immature insects by order and family, answer questions about insects, and use or construct a dichotomous key.	*MS-LS1-4, MS-LS 4-2, MS-LS 4-3*
EXPERIMENTAL DESIGN – This event will determine the participant's ability to design, conduct, and report the findings of an experiment conducted entirely on site.	*MS-PS 1-2, MS-PS 1-4, MS-PS 1-5, MS-PS 2-2, MS-PS 2-5*, *MS-PS 3-1, MS-PS 3-4, MS-LS 1–1, MS-LS 1–3, MS-LS 1–6*
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.	*MS-PS 2-1, MS-PS 3-5, MS-ETS 1-1, MS-ETS 1-2, MS-ETS 1-3, MS-ETS 1-4*
HEREDITY – Participants will solve problems and analyze data or diagrams using their knowledge of the basic principles of genetics.	*MS-LS 3-1, MS-LS 3-2*
HOVERCRAFT – Prior to the competition, participants will design, construct, and calibrate a self-propelled air-levitated vehicle that moves down a track.	*MS-PS 2-1, MS-PS 3-5, MS-ETS 1-1, MS-ETS 1-2, MS-ETS 1-3, MS-ETS 1-4*
MACHINES – Teams will construct a lever-based measuring device prior to the tournament to determine the mass ratios between three test masses and complete a written test on simple and compound machine concepts.	*MS-PS 3-5., MS-ETS 1-1., MS-ETS 1-2., MS-ETS 1-3.*
METEOROLOGY – Participants will use scientific process skills involving qualitative and quantitative analyses to demonstrate an understanding of the factors that influence Everyday Weather through the interpretation of climatological data, graphs, charts, and images.	*MS-ESS 2-5, MS-ESS 2-6, MS-ESS 3-2,*
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.	*NGSS SEP 4, NGSS SEP 5, CCSS 6.RPA.3, 7.G.B.6, 8.G.C.9*
MISSION POSSIBLE – Prior to the competition, participants design, build, test, and document a Rube Goldberg®-like Device that completes required Start and Final Actions through a series of specific actions.	*MS-PS 3-5, MS-ETS 1-1, MS-ETS 1-2, MS-ETS 1-3, MS-ETS 1-4*
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.	*MS-PS 1-2, MS-PS 1-3, MS-LS2-3, MS-LS 2-4*
REMOTE SENSING – Participants will demonstrate an understanding of the basic principles of remote sensing and interpret imagery, data, and maps related to human interactions with land on Earth.	*MS-PS 4-1, MS-PS 4-2, MS-PS 4-3, MS-ESS 2-2, MS-ESS 2-4, MS-ESS 2-5, MS-ESS 2-6*
ROCKS AND MINERALS – Participants will demonstrate their knowledge of rocks and minerals.	*MS-PS 1-2., MS-ESS 1-4, MS-ESS 2-1, MS-ESS 2-2., MS-ESS 2-3*

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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.	*MS-ETS 1-1, MS-ETS 1-2, MS-ETS 1-3, MS-ETS 1-4*
SOLAR SYSTEM – Students will demonstrate an understanding and knowledge of planet formation and structure within and beyond the Solar System.	*MS-ESS 1-3.*
WATER QUALITY – Participants will be assessed on their understanding and evaluation of aquatic environments.	*MS-LS 2-1, MS-LS 2-2, MS-LS 2-3, MS-LS 2-4*
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.	CCSS ELA Standards *W6.2,* W*7.2, W8.2* K-12 Computer Science Framework *6-8 Algorithms and Programming,*