WESO 2026 Event Slate

Confirmed Events	Grades 2 & 3	Grades 4 & 5	# of participants/team
Aerodynamics	✔	✔	1-2
Feathered Friends	✔	✔	1-2
Circuit Wizardry		✔	1-3
Code Busters		✔	1-2
Geology Rocks!		✔	1-2
iCompute		✔	1-2
iRobot	✔		1-2
Mystery Architecture	✔	✔	1-2
On Target	✔	✔	1-3
Pasta Bridges	✔		1-2
Pentathlon	✔	✔	5
Photon Phun		✔	2-3
Potions		✔	1-2
Read It/Build It	✔		1-2
The Human Machine	✔	✔	1-2
Zip-It	✔	✔	1-3
What Went By	✔		1-2
Total # of event	11	13	
Total # of participants	27	33	

Brief Event Descriptions

Brief event descriptions are from previous years and may be modified for 2026. Detailed event descriptions will be released in January.

Aerodynamics

Teams will design, construct, and fly at least two paper airplanes. Two initial flights will be measured for distance. Two final flights will be measured for flight time.

Feathered Friends

Participants will be tested on bird identification skills and basic bird science. Bird vocalizations, habitat, behavior, specimen identification, and field guide comprehension will be included as part of this hands-on, multimedia event.

Circuit Wizardry
Participants will be tested on basic electrical circuit concepts, components, schematic reading and understanding, and ability to design and build a simple circuit from a functional description.

Code Busters
Teams will be tested on their ability to decode encrypted messages using historical and modern ciphers, tentatively including the Atbash, Caesar, Aristocrat, Vigenère, Tap Code, Dancing Man, and Pig Pen ciphers.

Geology Rocks!
Participants will be tested on their knowledge of basic geologic processes, mineral properties, and rock characteristics through hands-on activities and short questions.

iCompute
Participants will be tested on the following.

- Knowledge of basic computer concepts, including hardware and software
- Understanding of how computers solve problems
- Ability to create a simple program using a graphical interface

iRobot
Participants will be tested on the following:

- Knowledge of basic computing and robot automation concepts including software.
- Understanding of how computers and robots solve problems.
- Ability to identify the correct color code sequence to have Ozobot complete an objective.

Mystery Architecture
The goal is to use the given materials to build the tallest free-standing tower that can hold a tennis ball on top until the measurements are recorded.

On Target
Each team builds exactly 6 missiles, utilizing precision straws as the missile body. Missiles are constructed during the time of the event, using only materials provided by WESO. Missiles are launched indoors at a fixed target, with each participant on a team getting an opportunity to launch. The accuracy of the missile (distance from target) on a team's three best launches is used to determine the team score, with the shortest total distance from target being considered the winner.

Pasta Bridges
Participants will build a bridge using the materials supplied to support a cup (in the middle of the bridge) with as many small weights as possible.

Pentathlon
Five physical skills are combined with math questions in an obstacle course/relay race event. Each team must have five participants. The team score will integrate both the timed physical activities and the accuracy of answers to questions.

Photon Phun
Teams of 2-3 students will use mirrors to aim a light beam at stationary targets in a darkened room. Teams will also answer written questions on the behavior and properties of light.

Potions
Each team will answer questions about basic chemistry concepts and complete simple chemistry experiments, while exercising basic lab skills and safety procedures.

Read It/Build It
All teams will be given an identical set of objects and instructions. Teams will attempt to build a "picture" from the objects based on the given instructions. The team with the most pieces placed correctly wins. This event tests each team's ability to understand and follow written or graphical instructions.

The Human Machine
Teams will be tested on their knowledge and understanding of basic human anatomy and physiology with an emphasis on the immune system. The event will involve rotating stations where teams are asked questions addressing their knowledge using traditional question formats as well as practical assessments.

What Went By
Participants will be tested on animal identification skills related to animals native to southeast Michigan. Animal vocalization, habitat, behavior, specimen identification, and field guide comprehension will be included as part of this hands-on, multi-media Olympiad event.

Zip-It
Given a few household materials, each team will construct a cable car capable of safely carrying a ping-pong ball down a zip line. The objective will be to achieve a target run time which will be revealed on the day of the event. There will be a short written portion testing the physics concepts of the zip line, including an average velocity calculation.