2024 Saline Heritage Science Olympiad Open to all 2nd-5th graders Kick-Off Meeting November 8, 2023







Jon Spencer

Head coach for Saline Heritage Science Olympiad Open to all Saline 2nd-5th grade students

salineheritageso@gmail.com or

salineheritageso.weebly.com







About Us

Me - 8 Years as a WESO event coach, 7 years as head coach, and 6 years as a Middle School event coach.

Cosima Boswell-Koller - Head Coach in Training!



Agenda

- Washtenaw Elementary Science Olympiad (WESO)
- 2. Events for Science Olympiad
- 3. Coaches, Teams, and How to Prepare
- 4. Details, Details, Details





What is the Washtenaw Elementary Science Olympiad?

(or WESO for short)



WESO

WESO is a non-profit organization that facilitates science education enrichment for elementary school students in Washtenaw County.

- Largest Elementary Science Olympiad competition in the country!
- ✗ At its peak, over 2,500 students from grades 2−5 participate from over 40 schools!
- ★ Over 20 different Science and Engineering events!



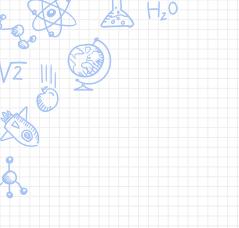




× Increase interest in science and engineering

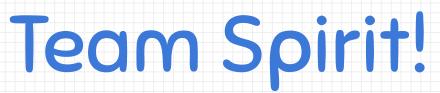
Foster growth of the student's knowledge in the sciences

X Make science fun!!!



X





- × Team work, group planning, and cooperation
- Learning science through active hands-on group work
 - X Make friends to last a lifetime!!!

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2024 Washtenaw Elementary Science Olympiad Currently Scheduled for Saturday, April 20th!



2024 Olympiad Schedule (times subject to change)

<u>Grade</u>	<u>Events</u>	<u>Ceremony</u>
2nd Grade	8:00-11:00 am	11:30 am
3rd Grade	11:00-2:00 pm	2:30 pm
4th Grade	2:00-5:00 pm	5:30 pm
5th Grade	5:00-8:00 pm	8:30 pm



2nd & 3rd Graders

- ★ Aerodynamics (1–2)
- ✗ Barge Building (1−2)
- ★ Feathered Friends (1–2)
- ✗ Human Machine (1−2)
- × iRobot (1-2)
- ✗ Map Reading (2)
- X Mystery Architecture (1-2)
- X On Target (1–3)
- × Pentathlon (5)
- ✗ Read It/Build It (1−2)
- 🗶 Zip-It (1-3)

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4th & 5th Graders

- × Aerodynamics (1–2)
- ★ Feathered Friends (1–2)
- ✗ Human Machine (1−2)
- 🗴 iCompute (1-2)
- X Mystery Architecture (1–2)
- X On Target (1–3)
- × Pentathlon (5)
- × Potions (1–2)
- ✗ The Plot Thickens (1−2)
- ✗ Write It/Build It (2−4)
- X Zip-A-Dee-Doo-Dah (1-3)



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.

Barge Building

Using materials provided, teams will construct a barge, predict the amount of cargo the barge will hold before it sinks and load the barge. Scoring is based on the amount of cargo held by the barge and the team's ability to predict the maximum amount the barge can hold.

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.

The Human Machine

Teams will be tested on their knowledge and understanding of basic human anatomy and physiology. There will be two components to this event. The first will involve a standard test with questions pertaining to the overall concepts of human anatomy and physiology and eleven organ systems. The second component will be a rotating station practical assessment focusing on the specific organ system(s) identified for that year.

iCompute (4th & 5th)

iRobot (2nd & 3rd)

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

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.

Map Reading (2nd & 3rd) Mystery Architecture

Students will test their map reading skills by answering geographical questions using maps of different kinds. 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.

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.



Plot Thickens (4th & 5th) Potions (4th & 5th)

This event will test the students' understanding and ability to collect, interpret, and analyze data. 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 (2nd & 3rd)

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.

Write It/Build It (4th & 5th)

Writers will be shown a "picture" and will write a description of it. In a separate room, the builders will be given the objects of the "picture" and the written description, made by their writer teammates, and attempt to rebuild it. The team with the most pieces placed correctly wins. This event tests competitor's ability to clearly communicate in writing and follow written directions. The "picture" is a designed layout of individual objects installed on a flat surface, such as a poster board.

Zip-lt

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.





Coaching

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Coaching

- ✗ All events are coached by a parent or volunteer.
- ✗ Who can be a coach?
 - X Anyone!
- ✗ Background check at Heritage.



Coaching Responsibilities

- ✗ Hold practices regularly (in-person or Zoom)
- Create a schedule that works for you and your teammates
- ✗ Attend WESO Coaching Meeting (date TBD)
- × Keep attendance
- Communicate with me regularly! Let me know how things are going, if you need help, etc.



Resources for Coaches

- ✗ I will be distributing materials in early January
- Check out the event descriptions on the WESO website for event rules
- Sign up with the WESO blog to receive updates on the events and rules



When/Where are practices?

- × Practices should begin in January
- The practice time and location will be determined by the event coach and participants
- We have space at Heritage to practice after school during the week. Other locations include the Saline library or virtually.





Olympians



Time Commitment

- Plan on 1-2 hours per week / per event. One hour for practices, one for outside of practice work
- Practices can be scheduled around your and the coaches' schedule
- ✗ I suggest the students aim for 1−3 events





Teams



Teams

- We can form one competition team per event per grade.
- With 11 events and roughly two Olympians per event, 25-30 Olympians can compete per grade!
- ✗ But what if more Olympians sign up for an event than there are spots?

How will teams be formed?

- X To encourage all student's interest in science, we do not limit the number of students who want to learn and practice an event.
- Each event has a maximum number of students who can compete in the Olympiad.
- The final decision on who will compete will be decided by me and the event coaches.



The final teams will be selected by me using the following criteria in this order:

- 1. Olympian's desire to compete in the event;
- 2. The event coaches' child will receive priority over other participants;
- 3. Any potential event scheduling conflicts;
- 4. Participation in the practices and feedback from the event coach;
- 5. Performance in our practice Olympiad.





Details, Details, Details



Tentative Timeline

- December 2023: Formation of initial event teams
- ✗ January 2024: Practices begin
- ✗ March 2024: Saline Practice Olympiad
- ✗ April 20, 2024: Washtenaw Elementary Science Olympiad!



Details, Details, Details

- \$25 per student for the season. This will include a 2024 Saline Science Olympiad t-shirt, materials for build events, team registration, and cost for raffle prize.
- Registration with WESO and Saline Heritage Science
 Olympiad (end of November).
- Volunteers for the tournament: 1 volunteer for every 3 kids up to 25 participants; 1 volunteer for every 2 kids over 25 participants

Registration

Two steps to registering your Olympian:

- Register with us at salineheritageso.weebly.com, and
- 2. Register with WESO (link to be provided soon).



Volunteers

- If you are not volunteering to coach an event, we will need your help at the Olympiad.
- X Volunteer opportunities include:
 - × Setup the night before
 - X Day of Help (running events, helping direct Olympians, etc.)
 - X Cleanup after
- **X** More information to come!



For More Information

Our Website: <u>http://salineheritageso.weebly.com/</u>

WESO Website: <u>https://wesoscience.org/</u>









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Questions?

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