



Exploring the World of Science

Elementary Head Coach Information Meeting

October 27, 2025
MISD

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Agenda

We will cover

- Available Resources
- Open House Kits
- Workshop Priorities
- 2026 Event Details
 - Including Ozo Orbit
- Impact of MCC Construction
- Team #s and Tournament Schedule
- Registering a Second Team
- Quick Start Kits
- Season Calendar
- Practice Tournament Results
- Volunteers
- Tournament Day Details
- Resolving Possible Tournament Concerns
- Door Prizes
- Q & A

We will not cover

- How to select team members
- How to read the tournament schedule and assign students to events
- Where to find event coaches
- How to build support & commitment

[If you missed the New Head Coach Workshop on October 6, please contact us. Also see the recording of a past workshop on the Head Coach webpage]

Season Headlines

- The 17 events from last year are all returning, with some modifications
 - In addition, Ozo Orbit is offered as a Trial event (#18)
- There are some continued and new challenges for this season related to MCC campus construction
- Second team registrations will begin on Nov 1
- Quick Start Kit ordering will open soon
- Final registration is expected to be a new system, already under development (April)

Available Resources

- **MSO Website Resources** www.macombso.org/elementary
 - **For Head Coaches**
 - **Head Coach Handbook**
 - Covers many topics, from *Roles and Responsibilities of the Head Coach* to *Season Schedule and Milestones*
 - **Monthly Tips** (also an event coach version)
 - An injection of advice on what you, your event coaches and your students should be doing at the current point in the season
 - **Presentations and memos you might have missed or misplaced**
 - **For Event Coaches**
 - **Study guides, training videos, old test archive**
 - **FAQs**
 - Answers to a question about specific events which clarify the rules.
- **Event Coach Training (Jan 10, 2026) Virtual**
 - An opportunity for your event coaches to hear from the actual event supervisor, and to ask questions
 - Recording of past sessions are already posted on the website
- **Quick Start Kits**
 - Available for 8 of the 18 events
- **Open House resources**
 - If you need help building interest in your school, we can help with hands-on displays that help make Science Olympiad more tangible

Open House Kits (Now – January)

- **What:**

- Posterboard displays, corresponding to each event (see the example display)
 - Rules, example materials, outline of topics to coach, sample test questions, etc.
- PowerPoint presentation
 - Can be the kickoff, or can be playing on a loop

- **How** you might use it:

- Generate interest among students and families in your school at conference night, or for an event specifically targeted to specific grades
- Create excitement among the students and families at the first team meeting. Get parents to commit to serve as event coaches.

- **Reservations:**

- Experienced Coaches: sign up for a traveling kit
- New Teams & Rookie Coaches: sign up for an Open House supported by MSO
- There are 2 kits; contact Kathy Deckert to see if the one in your area is available esosecretary@macombso.org

Workshop Priorities

- What event workshops to run for students and event coaches?
- You were given 3 “voting aids” on your way in
 - Please raise your hand if your school didn’t get a set
- You will get to vote on your way out
 - There are cups in the back of the room with event names marked on them
- Factors that you might consider:
 - What events have changed
 - What events would help your team the most
 - What workshop videos we already have posted online
- Events which are **not** available for you to choose today
 - Workshops are already planned** (you can’t vote for)
 - Amazing Arthropods
 - Wildlife Safari
 - Starry, Starry Night

2026 Event Details

Major Change

- A is for Anatomy
- Wildlife Safari
- Ozo Orbit (trial)

Moderate Change

- Amazing Arthropods
- Codebusters
- Crash Car Eggspert
- Precision Ping Pong Propulsion
- Rock Hound
- Starry, Starry Night
- Weather or Not

Small or No Change

- Bridging the Gap
- Code Warriors
- Crime Busters
- Charged Up
- Reflection Relay
- Simple Machines
- Water Rockets
- Zowie Estimation

Event rules are available on the website:

- [All events](#) (on the HC page)
- Specific events: see the button on each event page

When reading the rules: **Bold text** = changed from last year

A is for Anatomy

Students will identify anatomical structures of the human **cardiovascular**, **respiratory**, and digestive systems.

- Each of the stations will have models or pictures of anatomical structures
- The teams will move around the room, one team per station, answering the multiple questions at each station as they go. Students will use a provided ZipGrade answer sheet.
- These major systems will be in scope (see the rules for more details):

- Cardiovascular



- Heart chambers
- Heart Valves
- Heart Tissues
- Arteries and veins
- Path of blood

- Respiratory



- Nose, oral cavity, pharynx
- Larynx
- Tracheobronchial tree
- Lungs
- Muscles of breathing
- Pleura

- Digestive



- Mouth
- Stomach
- Small intestine
- Large intestine
- Bile ducts

Scoring:

- The team with the highest point total will be the winner.
- There will be four multiple choice questions at each of the 21 stations, worth 1 or 2 points.
- Ties will be broken by the four questions at station #22. These questions will be open-ended (not multiple choice) and require the correct spelling of scientific names.

Wildlife Safari

Students will identify **birds of Michigan, their call or song**, their habitats, and answer questions about their behavior and characteristics, and other interesting facts, with the use of field guides.

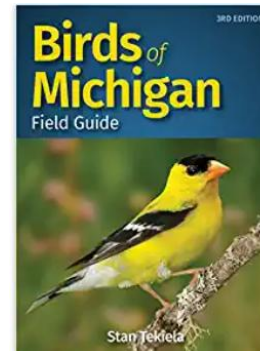
- The test will begin with a series of bird calls or songs which will be played aloud for all teams. Afterwards, teams will move through a series of 18-20 stations.
- Each station will have 3 to 4 questions which will vary in degree of difficulty and will be graded accordingly. Question format will be multiple choice, and true/false, recorded on a ZipGrade form.

Resources:

Birds of Michigan Field Guide

- 3rd Edition, 2019, Adventure Publications

A student-created field guide

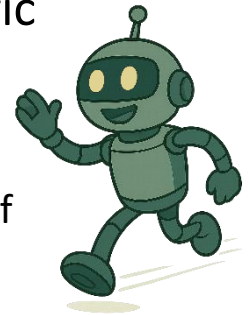


Scoring:

- Each correct answer will be worth between 1 and 4 points.
- Tie breaker questions will be fill-in-the-blank format. For the tie breaker questions, exact spelling is not required. A secondary tie breaker will be based on the total number of questions answered correctly.

Ozo Orbit (trial)

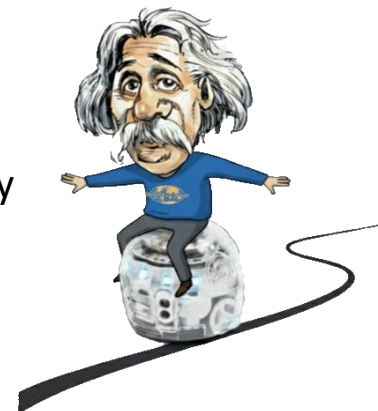
Students will direct an Ozobot robot to navigate a field toward specific objectives, either through programming or color-code stickers.



- The storyline of those objectives will follow the Orbit family, a fictional family of the future, whose family robot is named “Ozo”.
- Each team will be provided one robot, one laptop computer, and one set of color-code stickers.
- The Field Layout will not be public information before or during the competition.
- The Ozobot includes proximity, line-following and color sensors, all of which may be utilized to control the motion and position of the robot.

Scoring:

- Teams will accrue points when the robot progresses down the field and by accomplishing available tasks enroute.



Moderate Change Events

Amazing Arthropods

- Students will demonstrate an understanding of the major arthropod groups and assemble a collection of arthropod specimens or photographs. Some of the named species focus on the orders **Lepidoptera (moths and butterflies)** and **Trichoptera**.



Codebusters

- Students decode encrypted messages using cryptanalysis techniques. **Knights Templar replaces Pig Pen and Tap Code cyphers.**



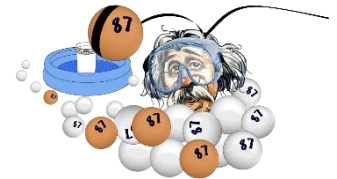
CrashCar Eggspert

- Each team will build a structure on top of a PineCar Racer. **Breaking the egg while building incurs a points penalty, rather than being classified as Tier 4.**



Precision Ping Pong Propulsion

- Students will design, construct and test a launching device to propel ping pong balls at a target. **The device must fit within a 1 m square.**



Moderate Change Events (cont.)

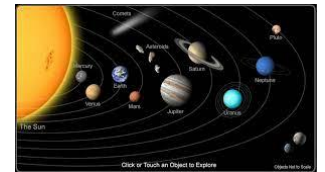
Rock Hound

- Students will identify and answer questions about various rock and mineral specimens. The emphasis is on **Sedimentary** rocks and minerals.



Starry, Starry Night

- Tests students' knowledge of astronomical facts and concepts relating to the earth, moon, solar system, celestial sphere, stars and constellations. This year, they will also be tested on **planets, moons, and other things found in our solar system.**



Weather or Not

- Students will be tested on their knowledge of meteorology. The scope will include an emphasis on **clouds, precipitation, and atmospheric processes.**



Small Change or No Change Events

Small Change

Crime Busters

- Event clarifications

Reflection Relay

- Event clarifications

Water Rockets

- Pressure vessel = **green** plastic

No Change

Bridging the Gap

Charged Up

Code Warriors

Simple Machines

Zowie Estimation

Impact of MCC Construction

- The Sports and Expo Center (SEC) will STILL be under construction and not available for our use on May 9
 - We have plans for relocating most activities from that building to elsewhere on campus, otherwise unchanged (Ping Pong, Open events, HQ, etc.)
- **Changes to accommodate construction restrictions:**
 - The total team capacity is 84
 - Team numbers will be assigned with K6 schools in #s 1-42, and K5 in 43-84
 - Second Team numbers will still be consecutive with respective Primary teams
 - There will not be an Opening Ceremony
 - **Precision Ping Pong Propulsion will be held in the Tower HS Aux Gym**
 - **Competition times will be assigned based on submission of your event team availability.**
 - The Awards Ceremony will be split by Primary division, and run back-to-back
 - It will again be held at Warren Woods **Tower High School**
 - Second team awards will be in each session in parallel with Primary teams
 - We believe K6 will go first; it is a function of team counts

Team #s and Tournament Schedule

- Team numbers will be assigned soon
- All teams have virtually the same event conflicts among 12 events
 - Also pay attention to conflicts from the Crash Car Eggspert build sessions!
- Six events will be scheduled in April, and are guaranteed to not conflict
 - Bridging the Gap, Crash Car Eggspert, Ping Pong Propulsion, Reflection Relay, Water Rockets, Ozo Orbit
 - Ozo Orbit time slots are 45 min long
 - Consider this when assigning the event

May 9, 2026 Schedule

Conflicts to Avoid	
Stars	Codebusters
Anatomy	Crime Busters
Machines	Wildlife
Charged Up	Code Warriors
Weather	Zowie
Rocks	Arthropods

EVENTS	ROOM	9:00-9:30	9:40-10:10	10:20-10:50	11:00-11:30	11:40-12:10	12:20-12:50	1:00-1:30	1:40-2:10
A is for Anatomy	TBD	29-50	1-14 79-84	15-28 71-78	51-70				
Amazing Arthropods	TBD	Collection Impound as scheduled by the Head Coach			15-28	29-42 71-74	1-14 75-78	61-70 79-84	43-60
Bridging the Gap	TBD	Compete at a predetermined time, as scheduled by the Head Coach.							
Charged Up	TBD	15-28	29-42	1-14	71-84	57-70	43-56		
Codebusters	TBD	1-14 71-84	15-28 57-70	29-56					
Code Warriors	TBD	15-28	29-42	1-14	71-84	57-70	43-56		
Crash Car Eggspert	TBD	Build time: 9:00 or 9:45 as scheduled by the Head Coach		Compete at a predetermined time, as scheduled by the Head Coach.					

Registering a Second Team

- We allow schools to register a Second team, as capacity allows (84 teams) on a first-come basis
 - We may run close to capacity this season
- Registration opens at **12 noon on November 1**
- The registration fee is \$75
- Awards*
 - They receive participation medals
 - They compete for medals in the Second Team division; no trophies
 - They are eligible to win an **Einstein Award**, in either the K5 or K6 division
 - Second teams will not be its own category for Einstein Awards; they will compete with their Primary team division.

*Awards policies may be changed depending on the number of Second teams and Rookie teams registered, by division.

If you have changed your mind, contact me so that I may assign your team number

Quick Start Kits & Supplies

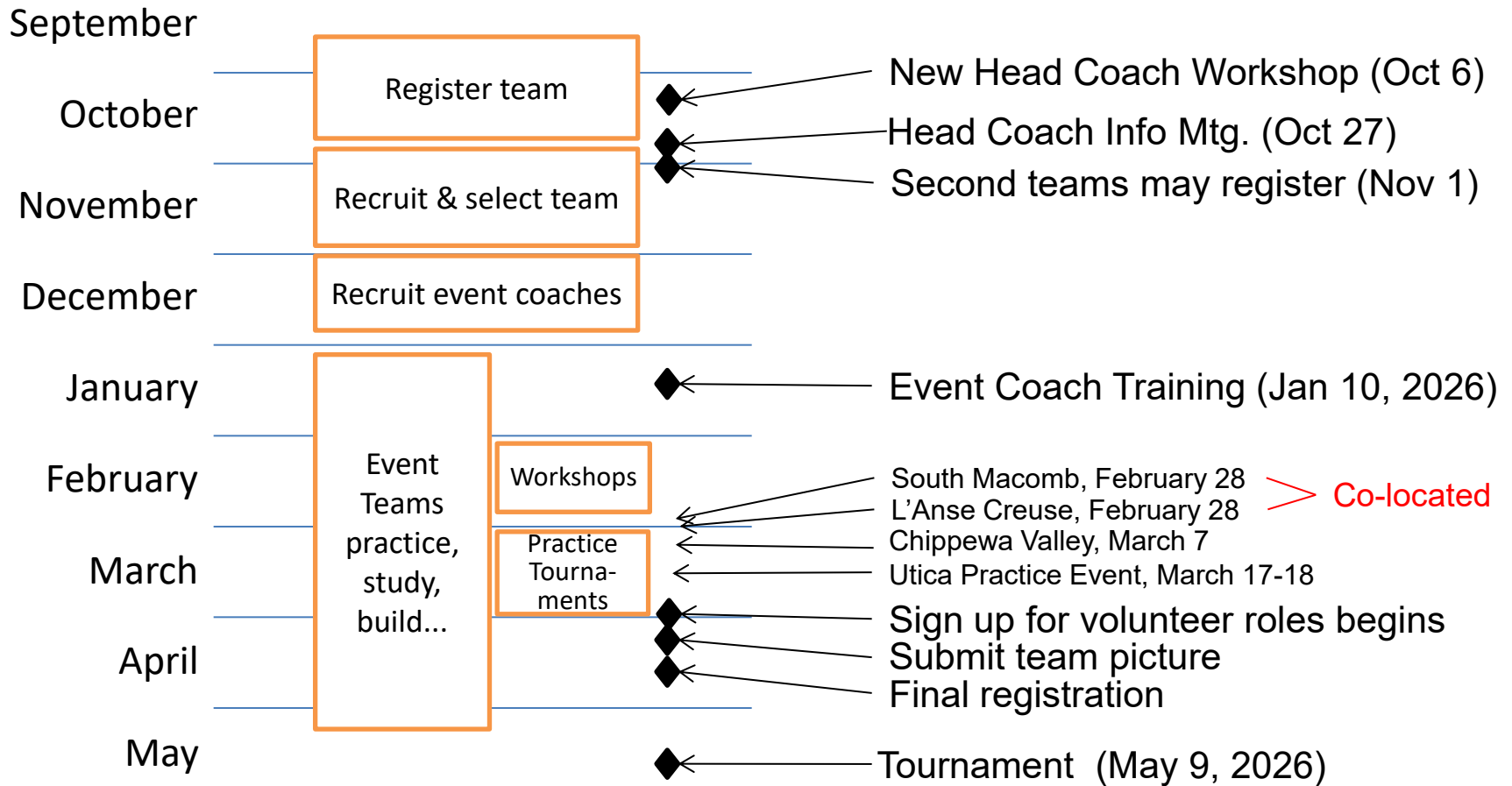
Available Kits

- Rock Hound
- Crime Busters kits (complete and replenishment)
- Reflection Relay Deluxe (2D challenge)
- Reflection Relay mirrors (3D challenge)
- Reflection Relay protractor
- Reflection Relay paper (2D challenge)
- Crash Car Eggspert kit (single or double)
- Pinewood cars
- Charged Up
- Ping Pong Propulsion (full kit or balls only)
- Bridging the Gap assorted materials kit
- Pins for insect specimens
- Glass vials for insect specimens
- **Ozo Orbit Full Kit**
- **Ozo Orbit replenishment kits**



We will send detailed ordering instructions to all Head Coaches; share this info with your families if they are also ordering supplies.

Season Calendar



Practice Tournament Results (in March)

- We will continue our policy of releasing the “category index” for select events after the last practice tournament.
 - We do not release test materials.
 - You should expect to receive the actual score sheets at the practice tournament (or soon after) + the Stars score breakdown.
 - Head Coaches will receive an email with the remaining category indexes after the last practice tournament

Starry, Starry Night Practice Test

Score Breakdown

Category	Your Score	Possible Score
General Solar System	4	8
Mechanics	5	6
Seasons	2	7
Moon Phases	2	6
Eclipse	8	8
Celestial Sphere	4	5
Galaxy/Nebula	8	15
Life-cycle of stars	0	8
Planets	16	19
Constellations	6	23
Images	10	15
Total	83	120

Or

Name	Roberts Elementary	Date	
Class		Quiz	

Student ZipGrade ID

42

1	○	○	○	○	○	11	●	○	○	○	○	31	○	○	○	○	○
2	○	○	○	○	○	12	○	○	○	○	○	32	○	○	○	○	○
3	○	○	○	○	○	13	○	○	○	○	○	33	○	○	○	○	○
4	○	○	○	○	○	14	○	○	○	○	○	34	○	○	○	○	○
5	○	○	○	○	○	15	○	○	○	○	○	35	○	○	○	○	○
6	○	○	○	○	○	16	○	○	○	○	○	36	○	○	○	○	○
7	○	○	○	○	○	17	○	○	○	○	○	37	○	○	○	○	○
8	○	○	○	○	○	18	○	○	○	○	○	38	○	○	○	○	○
9	○	○	○	○	○	19	○	○	○	○	○	39	○	○	○	○	○
0	○	○	○	○	○	20	○	○	○	○	○	40	○	○	○	○	○

A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
1	○	○	○	○	21	○	○	○	○	41	○	○	○	○
2	○	○	○	○	22	○	○	○	○	42	○	○	○	○
3	○	○	○	○	23	○	○	○	○	43	○	○	○	○
4	○	○	○	○	24	○	○	○	○	44	○	○	○	○
5	○	○	○	○	25	○	○	○	○	45	○	○	○	○
6	○	○	○	○	26	○	○	○	○	46	○	○	○	○
7	○	○	○	○	27	○	○	○	○	47	○	○	○	○
8	○	○	○	○	28	○	○	○	○	48	○	○	○	○
9	○	○	○	○	29	○	○	○	○	49	○	○	○	○
10	○	○	○	○	30	○	○	○	○	50	○	○	○	○

+

#	Answer	Points	Category
1	B	2	Taxonomy
2	C	3	Species Specific
3	B	3	Anatomy
4	A	2	Anatomy
5	B	3	Anatomy
6	B	2	Anatomy
7	A	2	Anatomy
8	B	2	Anatomy
9	C	3	Species Specific
10	D	3	Species Specific
11	A	2	Species Specific
12	B	3	Species Specific
13	D	3	Metamorphosis
14	D	3	Myriapoda
15	D	3	Myriapoda
16	A	2	Myriapoda
17	A	2	Myriapoda
18	B	3	Arachnida
19	A	3	Arachnida
20	C	3	Arachnida
21	D	3	Arachnida
22	C	3	Taxonomy
23	D	3	Insecta
24	B	3	Coleoptera
25	B	3	Insecta

Volunteers

- We continue to recruit volunteers from the community to help run the May tournament.
- If adults on your team wish to volunteer, please contact us in April
 - We were successful last year in not requiring volunteers from teams; only a few were recruited
- Most roles may be related to event support
- Online signup will be in April

Do you have any concerns at this point?

Tournament Day (May 9)

- We plan to offer Team Camps again
 - Teams may set up a tent on the grass behind the K-building (not elsewhere)
- Food pre-order
 - Families and teams are able to pre-order and pick up lunch in the K Building
 - Teams were required to pick up all orders together – probably again
- Team tables
 - We unexpectedly lost a room in the K-building last season; revised plan TBD
- Disc Jockey
 - Was located outdoors last year
- Awards ceremony
 - Split ceremony at Tower HS
 - We are still having issues with teams leaving early

*What feedback do you have?
What can be improved?
Was food quality ok?
Were Open Events accessible?*

Comments from Head Coaches:

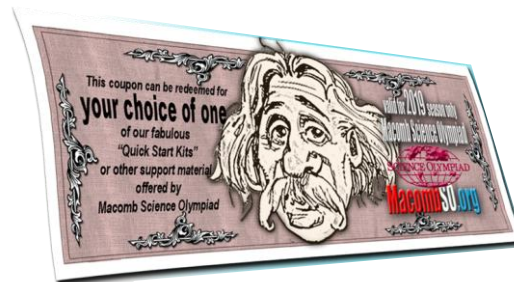
- There was not enough time or space between the exiting K6 teams and incoming K5 teams between the awards ceremonies
- Teams did not all follow the MCC food policies on campus; MSO should reinforce this message

Door Prizes

- We will draw 20 ticket numbers; winners will receive a credit for a free Quick Start Kit.
 - Today we will record your name. No paper vouchers.

When you are ready to order:

- Order the free kit separately from your other items. Choose “pay by voucher” for that item (or 2 if you have 2 credits).
 - We will mark your order as paid.
- Place your order for all other kits separately.



Questions & Answers

- What questions do you have?
- You may quietly leave if all of your questions have been answered

Thank you for coming!
Don't forget to vote for workshops!