



*Exploring the World of Science*

# Elementary Head Coach Information Meeting

October 23, 2023  
MISD

John Ogden  
[esodirector@macombso.org](mailto:esodirector@macombso.org)



# Agenda

---

## We will cover

- Available Resources
- Open House Kits
- Workshop Priorities
- 2024 Event Details
- Tournament Schedule
- Registering a Second Team
- Quick Start Kits
- Season Calendar
- Utica Practice Event Format Change
- 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

[These important topics and more will be covered at the New Head Coach Workshop, November 14. Also see the recording of a session from last year on the Head Coach webpage]

# Season Headlines

---

- Each team may still register up to 17 students
- Codebusters is a main event, replacing Grasp a Graph
- Quick Start Kit ordering will open soon
  - there are some details to know
- We are implementing new registration and volunteer systems
- Most team numbers have been assigned
  - You need to know your team number to make event assignments
- Second team registrations will begin on Nov 4

# Available Resources

---

- **MSO Website Resources** [www.macombso.org/elementary](http://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 13, 2024) Virtual**
  - An opportunity for your event coaches to hear from the actual event supervisor, and to ask questions
- **Quick Start Kits**
  - Available for 7 of the 17 events
- **Open House**
  - If you need help building interest in your school, we can help with hands-on displays that help make Science Olympiad 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](mailto: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 (we will discuss in a moment)
  - 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**

- Amazing Arthropods
- Wildlife Safari
- Rock Hound
- Starry, Starry Night

# 2024 Event Details

---

## Major Change

- A is for Anatomy
- Wildlife Safari

## Moderate Change

- Amazing Arthropods
- Codebusters
- Code Warriors
- Crash Car Eggspert
- Rock Hound
- Starry, Starry Night
- Weather or Not

## Small or No Change

- Crime Busters
- Charged Up
- Mystery Architecture
- Precision Ping Pong Propulsion
- Reflection Relay
- Simple Machines
- Water Rockets
- Zowie Estimation

Event rules are available on the website:

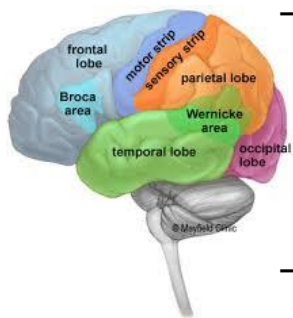
- [All events](#) (on the HC page)
- Specific events: see the button on each event page

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

# A is for Anatomy

Students will identify anatomical structures of the human **nervous**, and cardiovascular 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):



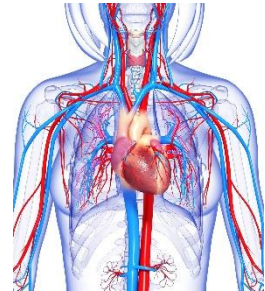
## – Nervous

- **Parts of the brain (and primary function)**
- **Spinal cord**
- **Parts of a Neuron**
- **Reflexes and signal path**

## – Special senses (ear and eye)

## - Cardiovascular

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



## 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 **reptiles and amphibians of the Great Lakes region** and their habitats, and answer questions about their behavior and characteristics, and other interesting facts, with the use of field guides.

- Teams will rotate among approximately 20 stations where they may view photographs of reptiles and amphibians, and their habitats.
- Each station will have 3 to 5 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:

***Reptiles & Amphibians of Minnesota, Wisconsin and Michigan Field Guide***

And or a student-created field guide.



## Scoring:

- Each correct answer will be worth between 1 and 4 points.
- **Tie breaker questions will require students to identify local frog vocalizations by listening to them, and answering a fill-in-the-blank format.** For the tie breaker questions, exact spelling is not required. A secondary tie breaker will be based on the number of difficult questions answered correctly.

# 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 **Blattodea, Ephemeroptera, Mantodea, Megaloptera, Neuroptera** and **Trichoptera**.



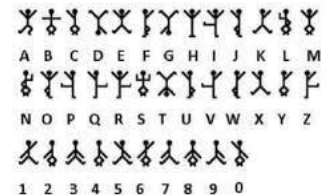
## Code Warriors

- Part 1: Multiple-choice questions on the concepts of computer science and computational mathematics. The programming language is Python.
- ~~Part 2: Hands on Programming (section dropped)~~
- Part 3 Interactive Challenges: online, interactive challenges or puzzles, which are based on the coding concepts in Part 1. (Part 3 is now called Part 2)



## Codebusters

- Is now a main event. Students will be tested on their ability to decode encrypted messages using cryptanalysis techniques and show skills with ciphers by decrypting a series of messages.
- **A new cypher, Dancing Men**, has been added to the scope.



## CrashCar Eggspert

- Each team will build a structure on top of a Pinocar Racer, designed to hold and protect one or two eggs as the car is rolled down a progressively steeper series of ramps and crashed into an immovable barrier.
- **The penalty points for the passenger egg have been greatly reduced, to encourage that option.**



# Moderate Change Events (cont.)

---

## Rock Hound

- Students will identify and answer questions about various rock and mineral specimens. The emphasis is **Metamorphic** 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 **air masses, fronts, and winds.**



# Small Change or No Change Events

---

## Small Change

### Water Rockets

- Pressure vessel = **green** plastic
- Scheduled tournament time is for inspection (followed by launch)

## No Change

Crime Busters

Charged Up

Mystery Architecture

Precision Ping Pong Propulsion

Reflection Relay

Simple Machines

Zowie Estimation

# Team #s and Tournament Schedule

- Most team numbers are already [posted](#) on our website
- All teams have virtually the same event conflicts among 12 events
  - Also pay attention to conflicts from the Crash Car Eggspert build sessions!
- Five events will be scheduled in April, and are guaranteed to not conflict
  - Crash Car Eggspert, Mystery Architecture, Ping Pong Propulsion, Reflection Relay, Water Rockets

## May 11, 2024 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	45-66	67-88	1-22	23-44				
Amazing Arthropods	TBD	Collection Impound as scheduled by the Head Coach			71-88	1-18	49-66	31-48	19-30 67-70
Charged Up	TBD	33-44	1-12	49-60	13-20 45-48	75-88	21-32	61-74	
Codebusters	TBD	1-30	31-60	61-88					
Code Warriors	TBD	33-44	1-12	49-60	13-20 45-48	75-88	21-32	61-74	
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.					
Crime Busters	TBD	45-66	67-88	1-22	23-44				

# Registering a Second Team

---

- We will allow schools to register a 2<sup>nd</sup> team, as capacity allows (88 teams) on a first-come basis
  - There will not be a capacity issue this season
- Registration opens at **noon on November 4**
- 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 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 registered

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

# Quick Start Kits & Supplies

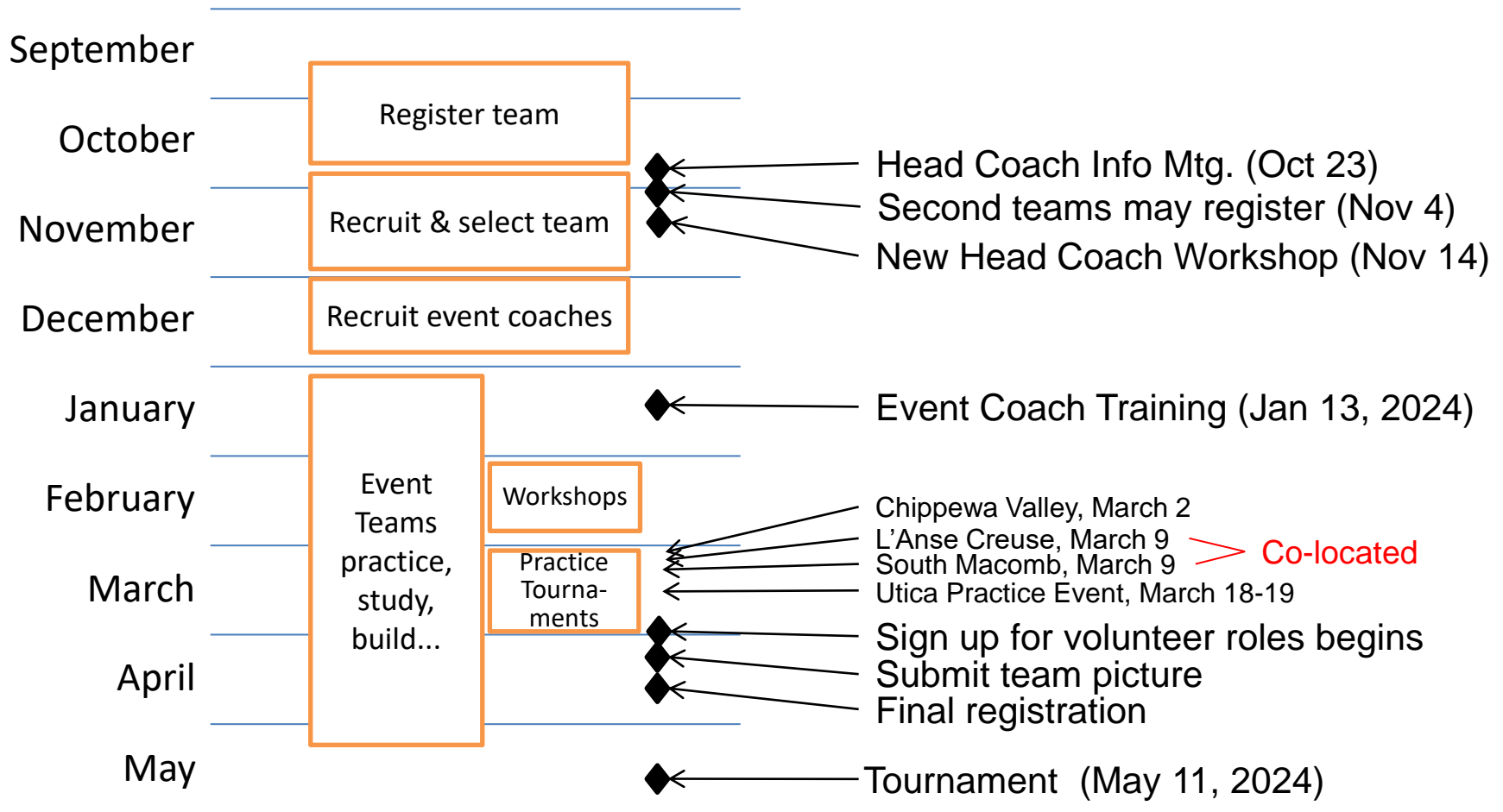
## Available Kits

- **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)
- Mystery Architecture assorted materials kit
- Pins for insect specimens
- Glass vials for insect specimens



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

# Season Calendar





# Utica Practice Event (March 18-19)

---

- The format will be as it was last season
  - The schedule conflicts will match the Macomb schedule
  - Each event team will have a specific time to compete, 30 minutes per session
  - Scoring will be handled and reported by MSO
- The schedule will spread across 2 evenings
  - Half of the events on day 1, half on day 2
    - Some students will need to attend both

**What feedback do you have about this? Did this work ok last season?**

# 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
<b>Total</b>	<b>83</b>	<b>120</b>

Or

Name	Roberts Elementary	Date	
Class		Quiz	

Student ZipGrade ID  
42

	A	B	C	D	E	A	B	C	D	E
1	○	○	○	○	○	●	○	○	○	○
2	○	○	○	○	○	○	○	○	○	○
3	○	○	○	○	○	○	○	○	○	○
4	○	○	○	○	○	○	○	○	○	○
5	○	○	○	○	○	○	○	○	○	○
6	○	○	○	○	○	○	○	○	○	○
7	○	○	○	○	○	○	○	○	○	○
8	○	○	○	○	○	○	○	○	○	○
9	○	○	○	○	○	○	○	○	○	○
0	○	○	○	○	○	○	○	○	○	○
1	○	○	○	○	○	○	○	○	○	○
2	○	○	○	○	○	○	○	○	○	○
3	○	○	○	○	○	○	○	○	○	○
4	○	○	○	○	○	○	○	○	○	○
5	○	○	○	○	○	○	○	○	○	○
6	○	○	○	○	○	○	○	○	○	○
7	○	○	○	○	○	○	○	○	○	○
8	○	○	○	○	○	○	○	○	○	○
9	○	○	○	○	○	○	○	○	○	○
10	○	○	○	○	○	○	○	○	○	○

+

#	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

---

- Every team should expect to provide at least one adult volunteer for the May tournament.
- Most roles may be related to event support.
- Online signup will be in March – April
- We have chosen a new volunteer software platform, so the look will be different.
  - Volunteers will be able to see available shifts before signing up; [see example](#)

*Do you have any concerns at this point?*

# Tournament Day (May 11)

---

- Team Camps were new last season
  - Teams may set up a tent on the grass behind the K-building
  - We believe it worked well. What feedback do you have?
- Food pre-order
  - Families and teams are able to pre-order and pick up lunch in the K Building.
  - What can be improved?
- Temperature
  - The Field House now has AC installed. Was it comfortable during awards?
- Team tables
  - Last season, some teams had dedicated tables and some had “shared” tables. We believe this cause some confusion.
    - We will likely add a 3<sup>rd</sup> room, and have all dedicated tables again.

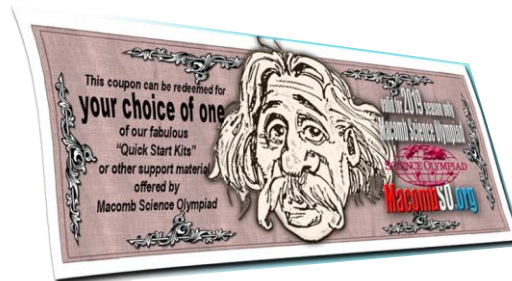
# Door Prizes

---

- 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 check” 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!**