

Michigan Science Olympiad

New Coach Handbook

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Welcome to Science Olympiad. Whether you are starting a new team at your school or inheriting an already established program, you are probably concerned about all of the details that go along with the job. This document is intended to provide tools and guidelines for you as you enter into your first year as a coach.

The following timeline is only a suggested timeline. Although this manual is for new coaches, each coach faces unique conditions. You will adapt and modify as you learn what works best for your students and school situation. Many new teams do not start Science Olympiad training until later in the school year. Also, they don't always compete in all of the events. So, this guide covers things from *basic level (in italics)* to those things expected from an experienced team.

August – In August, teams typically begin planning the year. Coaching Clinics and Invitational Tournaments will start to appear at the MSO web site, www.mi-so.org. The event rules are being completed at the national level but a list of events becomes available in August on the National web site, www.soinc.org. August tasks for teams include:

- ***Seek school approval for a team (if necessary).*** There are Youtube clips available for help convincing administration of the value of Science Olympiad.
- ***Review the rules for organizing a team*** at http://www.soinc.org/divisions_abc and at www.soinc.org/home_virtual_schools.
- ***Register your team at the MSO web site*** (www.mi-so.org). You must register and submit payment before December 31 to avoid a late fee. Directions for using the MSO website registration are included in the glossary of this document under “registration”.
- ***Outline the current year:***
 - Plan for a team organizational meeting (You might want to first meet with returning team members if you are inheriting an established program.)
 - Plan for a parent meeting later in the fall after you've established your team.
 - Find the contact information for your regional directors and the date of your region's spring tournament. This is found on the “regional map” at www.mi-so.org.
 - Set up a database of information for your reference. Record names, student ID numbers, current grade levels, phone numbers, and parents names.
 - Promote the team. Hallway posters, signs, and banners are a good idea to recruit team members. Promotional brochures about Michigan Science Olympiad are available from the State membership director and State outreach director upon request.

September – In September, registration is underway. Rules manuals are sent to those teams that have registered at the MSO web site and have paid their fees. Regional Tournament and Coach Clinic dates with registration information are posted on the MSO web site. (Michigan Science Olympiad sponsors a coach workshop the first Saturday in December each year at Michigan State University.) September tasks for teams include:

- ***Register and pay your principle team registration fee*** to MSO to receive your copy of this year's rules manual. (Alternate teams can be registered for a small additional fee.)
- ***Read the rules for each event carefully.*** The rules are very specific and must be strictly followed by your students and their coach at all times. Questions about rules are often addressed at the National web site in the Events Clarification section.
- ***Make contact with your regional director*** to introduce yourself as a coach.
- ***Hold first team organizational meeting.*** Introduce the events at this meeting to generate student interest. Students can sign up for events that they might be interested in doing. Remember you don't have to participate in all of the events. Go with the ones that seem to be of most interest to your students.
- ***Print copies of event rules*** from the rules book for students to use in studying for events.
- ***Solicit parent help.*** Sometimes parents can be the best assets to help coach events.
- ***Set up & maintain a team web site or Wiki site.*** This is a great way to promote the team.
- ***Start gathering resources, study materials, supplies, and mentors.*** Build a SO library for future use. Take advantage of information on the web. Look to others to help mentor events. "Many hands lighten the load."
- ***Set up team practice schedules.*** Some teams practice after school. Other teams practice on Saturdays. Lunch and study hall time can be used. Elective course can also be established.

***** This is the sequence to follow no matter when you start your team.***

September through November – If you can organize in the fall, your students will be able to take advantage of holiday breaks to study and prepare for their events. It's also a time when coach clinics will be offered. (*But if you are just getting started and can't pull it all together in the fall, you can still plan on competing at your Regional Tournament. Many schools don't start their teams until January.*) Other suggestions for fall organization include:

- ***Work with team members to determine which events best suit their interest and ability.*** Students should plan to participate in at least 3 different events if you plan to compete all

of the events. This will provide team versatility. (Remember you do not have to compete in all events.)

- Regions publish their tentative tournament schedules any time from November to February. They may be on their own website or sent to you as a registered team coach. Use the schedule to match students with events. ***Once a schedule has been published, assign students to the events they should plan to compete.*** Sometimes conflicts with the schedule happen. This is difficult for students who have spent a lot of time preparing for an event only to find they have 2 events in the set schedule at the same time. The tournament schedule cannot be amended for these conflicts. Team versatility helps at times like this.
- The State tournament schedule is published at the end of November or early December. Highly competitive teams will compare their Region's tournament schedule to the State schedule to avoid conflicts and make adjustments accordingly.
- ***Make sure your yearbook supervisor takes a team photo of you and your team for your school yearbook.***
- ***Do some team fundraising*** to help with costs like team registration, supply purchase, and possible team travel costs. (Some districts make teams pay for school buses to transport teams to competition.)
- ***Register for and attend a coach training clinic.*** They are valuable information sources.
- Network with coaches from neighboring schools.
- ***If you have registered on the MSO site and haven't received a rules book, check with your school business office to see if your registration check has been mailed.*** Some districts only cut checks once a month. This might delay your registration. Your payment must reach MSO by December 31st or a late fee is assessed.

December - January – In December and January, some schools host invitational tournaments. Invitational tournaments are awesome ways to give your team members practice competing in their respective events. There are small fees assessed for participation in these invitationals, but the cost is well worth the experience students gain from participating in them. Invitational information will be posted at the MSO web site as it becomes available to the State board. Other suggestions for December and January include:

Attend the coaches' meeting at your regional tournament site. This information will be sent to you by your regional director.

Attend the coach clinic the first Saturday in December at Michigan State University. Many events will be show-cased there. State level event supervisors will be present, ***and, a new coach help session will be available.*** (www.mi-so.org has information available.)

Expand student study and project building time. Hold organized practices right up until your Regional tournament date. Create assignments for students to do over holiday break.

Test constructed devices as soon as possible. ***Measure the devices carefully.*** If there are dimensions published in the rules and you are slightly off from those dimensions, your device will be ranked lower than other devices in event scoring at tournaments.

Prepare paperwork for competition. For example, permission slips & paperwork required by your regional director. This can also include paperwork required early for self-scheduled events. Make sure you adhere to deadlines for paperwork submission.

Submit request for self-scheduled events as soon as possible. Workable time slots often fill up quickly. Your region will send out information about this in January.

Organize transportation for the team to the regional tournament site.

February – March – This is the time period for Michigan regional tournaments. Each region hosts a tournament at a designated location on a designated day. These dates are available through the regional director and are published at the Region Map at the MSO web site – www.mi-so.org. ***This is “crunch time.” It can be very intense time for students and for the coach. HANG IN THERE !!!*** Suggested late-winter tasks include:

Make sure you have all required regional tournament paperwork completed and submitted. Some regions will require teams to provide 2-3 volunteers to help run the tournament. Try to line up parents or other teachers to do this.

Finalize travel arrangements to get the team to the regional competition.

Collect signed permission slips.

Continue practicing and fine-tuning events.

Make sure ALL devices used in an event are clearly labeled with your team name and Regional tournament team number.

April – The State tournament is usually held the last Saturday in April at Michigan State University in Lansing. The top 2 teams in each division (B and C) are invited to compete in the National tournament. If your team qualifies for the State competition, congratulations!! Things to plan include:

- Your practice will need to continue. Some teams even practice during spring break.
- Be sure you submit required paperwork for the State tournament on time. This might include self-scheduled events.
- Organize transportation for the team to and from the State tournament.

- Submit names of parents who are willing to volunteer at the State tournament.

If you did not qualify for State, you may want to volunteer at the State tournament to see how it's organized. Your regional director can assist you in volunteering at State.

May – Unless you are competing at the national tournament, this is a time for closure for your team and planning ahead for next year.

- Hold a team party during this month to congratulate the students for all of their hard work.
- You might want to give awards (MVP, Rookie of the Year, Most Creative Team Member, etc.).
- Write thank-you notes to people who helped your team along the way. Volunteers who helped you will be more likely to help again next year if you recognize and applaud their efforts.

June – July – This is the time to reflect upon the past season and plan ahead for next year.

- Keep looking at the MSO web page for updates over the summer. New event rules don't come out until the end of August, however. Some events will stay the same. Some events will be retired for a few years, and some events will be brand new. It's still a good idea to keep a library of all of your reference materials. Typically, retired events come back again after 5 or 6 years.
- Registration for the next year opens early in June. You are always invited to register early. Event rule books are mailed out in the order in which registration payments are received by the State membership director, usually by mid-September.

Other Useful Information

Paperwork

Competition rules must be followed by all. Regional directors are required to collect the names and grade levels of the team members who will be competing. This list must be signed by the principal or head of the school. Some regions request more information such as which team member is competing in which event. It is important that you return all requested information carefully filled out before the deadline date.

It's a good idea to keep copies with you at the tournament.

You will be allowed to keep student medical forms but need to show that you have them available if asked at the tournament.

You will be asked to do a new set of documents for the State tournament if you qualify for it.

Wrist Bands & Other Identification

Some regions have gone to using wristbands or name tags for students competing to wear to identify themselves as legitimate competitors. The wristband/name tag must be worn to enter an event. It's a good idea to use a Sharpie marker to print the student's name, your team name, and team number on the band.

Each region using a wrist band will have a policy for replacing it should it become lost.

Wrist bands are mandatory at the State competition.

Students should have picture ID (like a school ID or driver's license) with them on competition day.

Competition Day

Science Olympiad competition runs like a track meet. There will be a central team location or gathering place where students, coaches, and parents can congregate. Some teams set up a "team camp" complete with a school banner.

It's going to be like organized chaos. Students will be competing in events at designated time periods. ***Give them an individualized schedule of their events including times and locations for competition in each event.***

Student MUST be on time for an event. Suggest they wear watches or have cell phones with time available to keep track of when they need to be at an event.

Some engineering devices will need to be impounded before competitions start. ***Make sure you have your team name and number clearly displayed on everything you impound.*** Make sure your students impound their devices on time before competitions begin.

Parents can provide coolers of snacks for students. Typically these will be left at the designated team camp or team homeroom location. Keep an eye on belongings, however. Unfortunately, sometimes dishonest individuals steal things left unguarded.

If you have alternates for your team, have them watch the spectator events. Some events are closed to spectators, but a lot of the engineering events are open for spectators to watch. It's always great fun to have your comrades watching as you run your Mission Possible, Egg Drop, Helicopter, or other engineering event. Encourage your team members to cheer each other on.

Encourage students to stay in their event for the full time. They should double-check work before turning in anything for grading. And, they should put their team name and team number on every single page they turn in just in case papers get separated by supervisors during the grading process. Send the maximum number of kids into each event – even if one is not experienced, they can cheer on and assist the skilled one.

Encourage your students to have fun. It's a busy day... full of activity... full of emotions. But it's a good kind of busy... a fun kind of busy.

Encourage students or parents to wait for competing team members to come out of closed events. It's nice to see a friendly face when you emerge from an intense round of testing.

Make sure you pick up impounded equipment and devices to take home.

Learn from other teams. At spectator events, watch the other teams and their devices. Learn from their experience. Get ideas for improvement.

Sit as a group at the awards ceremony. There is generally a designated place for the team and a different place for parents to sit.

Take photos of students who go to the stands to claim a medal. This is great for the students, their parents, and for a team scrapbook. They make good yearbook moments, too.

Take a team photo after the awards. This can be used the following year as a promotional tool.

Cheer on the other teams. Stand and applaud the winning team. This shows good team sportsmanship.

Things for the coach to bring on competition day:

- Sharpie markers (for labeling if needed)
- Extra pencils with good erasers
- Copies of paperwork you have submitted
- Emergency phone contacts (as on medical forms)
- Extra nonprogrammable calculators
- Extra safety goggles
- Copies of graphs, energy transfer lists, or other documents needed to be turned in to Event Supervisors
- Your own photo ID
- Roll of duct tape (just in case), screw driver, glue, etc. for minor repairs to devices
- Trash bags (to clean up your homeroom or camp space)
- Cell phone
- Camera – TAKE LOTS AND LOTS OF PICTURES !!! *Don't forget to put them on your web site.*

Glossary of Science Olympiad Terms

Alternate – You may have more than 15 students wanting to compete. Students beyond the official 15 competing team members are called “alternates.” These students may be used as substitutes if an official team member becomes ill, injured or cannot compete at a tournament. You will need to clear this with the Regional director before substituting a student. In addition, alternate students are allowed to compete in trial events.

Alternate team – a team that can compete in invitational competitions but not in regular Regional, State or National tournaments. There is a small fee to register an alternate team.

Arbitration – This is the process which allows a coach to file a complaint concerning the way his team has been scored, allowed to run their device, or any other concern that seems to violate the rules as stated in the rules manual. It is strongly suggested that the coach talk to the event supervisor before filing for arbitration. Often, things can be resolved at that point. Most regions have paperwork that must be filed within a specified time frame as well as a designated person(s) who will determine the outcome. Most regions require that only the head coach for the team file for arbitration.

Director – This is the person in charge of the planning and implementation of the tournament. All questions you have about the tournament and competition process should be directed to this person. This person is also called the “regional director” or “site director” in Michigan.

Event supervisor – Event supervisors are dedicated volunteers who prepare, implement, and score each of the competition’s events. Regional, State, and National level tournaments recruit their own event supervisors. All event supervisors (no matter the level of competition) MUST follow the event rules. These are not paid workers. They are volunteers. Have your students thank them for their work.

Headquarters – Most regions have a designated area where you can find the tournament organizers so that questions can be asked about the tournament. This may also include an area where event supervisors can turn in their tests, scores, and rankings. Many regions have scores reviewed to verify accuracy before they are recorded.

Impound – This is the process used to check in team-built devices before competition begins. Events that require advance impoundment are indicated in the events rule book. Tournament schedules will indicate the time and location where impounding will take place.

Invitational – These are practice tournaments organized by schools and are called invitationals. They provide ways to practice learned material, get copies of tests to use for study purposed, and compare team-built devices to those made by other teams. To participate, you fill out a registration form, pay the school a small fee, and then bring your team to the site of the invitational. They are not “by invitation.” All registered Science Olympiad teams and alternate teams are allowed to participate in an invitational. There are links to these invitationals available at the MSO web site.

Regional – In Michigan, there are 15 geographic regions. There is a map of these regions at the MSO web site along with director information and competition locations and dates. A “regional” means the actual competition between teams from that area leading up to qualification to participate in the State tournament. Larger regions will take more teams to the State competition. Smaller regions will take fewer teams to that level. The more teams there are in a Region, the larger the number of invitations to the State tournament for the Region.

Registration – Team registration opens in early June for the following year’s competitions. Registration takes place at the MSO website (www.mi-so.org). It is a two-step process. The coach must first set up an account to access the registration process. First time users will need to submit a user name, password, and indicate if they will be the head coach for the team. There can only be one designated head coach per team on the website, but other coaches can create accounts to access information from the site. The Membership Director will receive a prompt that a new account has been established and will activate that person to head coach status. Once authorized to be the head coach, the coach will need to use his or her user name and password each time he or she logs on. If the coach is registering a team that has not competed previously, he/she must enter contact information about the coach and the school. After the initial registration, coach and team information will automatically appear each year. Changes in mailing addresses, e-mail accounts or phone numbers should be forwarded to the Membership Director for updating. Once a team has entered a registration, the Membership Director and coach will both receive an e-mail message that includes the team’s registration number. This registration number must be included with the payment in order to be properly credited for the team. Event rule manuals are **ONLY** mailed to teams once their payment has been received.

Teams that have not registered or have not paid their fees are not allowed to compete.

Self-schedule – Some events will be “self-scheduled.” This means that individual time slots are available for teams to choose from rather than be placed in a block of time assigned by the tournament director. If your regional director has self-scheduled events, they will inform you of the time slots along with directions for the selection process. A highly competitive team will want to complete the self-scheduling process right away to secure times that work best for them.

State – The State competition is held in April each year at Michigan State University in Lansing, MI. Invitations to the State tournament from each region are based on the percentage of teams from a region compared to all teams in the State. The more registered teams in a region, the greater the number of invitations to the State tournament from that region. The top two division B and division C teams are invited to compete at the National tournament held in May.