

# **Wisconsin Science Olympiad**

## **Coaches Handbook**

### **Division B/C**



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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.

## ***I'm a Head Coach - Now What?***

Where do you begin? Do you need any help? Who do you ask for help? Can you do it alone? These are great questions that hopefully will be answered through this handbook. For additional resources from the National Science Olympiad Website, visit:

<https://www.soinc.org/participants/teacherscoaches>

Science Olympiad is not intended to make more work for you. You certainly are not expected to be all-knowledgeable or to take crash courses. You are not expected to be an information bank, the know it all, the do it all. Because of the huge variety of topics and disciplines covered within the realm of the Science Olympiad events, no one person is capable of being knowledgeable in all of the events, or even most of the events.

As the Head Coach, you will be the team manager, the organizer, the tour guide, and the decision maker. You will find that your daily routine becomes much more purposeful and goal-oriented.

Science Olympiad is for the students, not for the teachers, and definitely not for the parents. It is intended to include all students. Science Olympiad invites not just the very intelligent students but the entire spectrum of abilities and talents and interests and experiences - from Gifted and Talented to Special Education - from science, to math, to music, to shop, to agriculture, food technology, computers, electronics, and even construction. Many stories have been told by coaches about the eager involvement from unexpected students.

## ***Team Composition***

**Division B (Middle School, 6-9):** This level is governed by the [National Science Olympiad policies](#). Students must compete with their school of record. **If you are representing a school, you must first obtain the principal's permission before forming a team.** The head coach may be a teacher, a parent, or a community member.

There can be a maximum of 5 ninth graders that can compete on the Division B team. There can be a maximum of 15 students on any registered team, though the roster can change from tournament to tournament, as long as the roster never contains more than 15 students. In fact, there may be more than 15 different students that participate in Science Olympiad on a given team during a season as different students may compete on a team at different tournaments.

Teams wanting to use students younger than sixth grade may do so as there is no minimum age or grade, only a maximum grade. Many events involve reading that will be difficult for students younger than third grade. Coaches are advised to take care in putting students in events where they can succeed (e.g. pairing a younger student with an older one who can read the questions to them will help them be more successful). Students younger than sixth grade may be limited in their events based on event safety.

**Division C (High School, 9-12):** This level is governed by the [National Science Olympiad policies](#). Students must compete with their school of record. **If you are representing a school, you must first obtain the principal's permission before forming a team.** The head coach may be a teacher, a parent, or a community member.

Division B/C teams may also form as a homeschool group. A parent or community volunteer can register the team with whatever name the group chooses and act as the point of contact. As a means for ensuring that a team is representative of the local area, WSO will require that a team's head coach declare an official central team address at the beginning of each year. Student participation on that team will require that the student have a permanent address which is within a 60 minute driving time (radius) of the team's central address OR be within the same geographic county. Coaches will be responsible for ensuring that this requirement is observed by using GPS database information as the standard measure of driving time.

There can be a maximum of seven 12th graders that can compete on the Division C team. There can be a maximum of 15 students on any registered team, though the roster can change from tournament to tournament, as long as the roster never contains more than 15 students. In fact, there may be more than 15 different students that participate in Science Olympiad on a given team during a season as different students may compete on a team at different tournaments.

## ***Varsity and Junior Varsity (JV) Teams***

The first team from any school or organization is considered the Varsity team, and any additional teams after that are Junior Varsity (JV) teams. All students compete in the same room at the same time, however the designation difference comes with distribution of medals and trophies. In Wisconsin, at regionals and state, Varsity teams compete against the other varsity teams for one set of medals and trophies, while JV teams compete as "exhibition" teams for individual medals but no team score is kept. Varsity and JV teams cannot "mix and match" their students at a specific tournament. The varsity team member must compete with the other varsity team member in an event, JV1 with JV1, JV2 with JV2, etc. Likewise, Varsity and JV cannot share devices or resources in events; for example, the Varsity and JV team from the same school cannot share a guidebook or use the same bottle rocket.

## ***Events***

There are four types of events in Science Olympiad: Core Knowledge, Build, Laboratory/Hands-On, and Hybrid events.

**Core Knowledge Event:** An event where participants are given a set of topics that they are expected to research and master the factual content. Mastery is demonstrated at a tournament by taking a paper-pencil, station, and/or computer test.

**Build Event:** An event where participants are given some specifications about a device or object they are expected to design, create, and test in advance of the tournament. The devices or objects are often modified on site to account for an unknown parameter prior to testing or evaluation.

**Laboratory/Hands-On Event:** An event where participants are given a general topic in which they will be expected to deepen their content knowledge of the topic and associated research techniques prior to the tournament. At the tournament they will be assessed by the completion of a hands-on task, which may or may not require a written report, within a defined timeframe.

**Hybrid Event:** An event which combines elements from two or more of the above event types. The most common combination mixes elements of a Core Knowledge Event with elements of a Build or Lab event.

## ***Tournament Big Picture***

It can be difficult to describe a Science Olympiad tournament to someone who has not seen one before. One hint: It looks a lot more like a track meet than a science fair.

School teams of up to 15 students prepare throughout the year to compete in a tournament. Tournaments consist of at least 23 different events occurring throughout the day, typically for 45-50 minutes, although some events can be much quicker. Any given school team may have only one entry per event. An entry is an event team of up to 2 (but sometimes 3 or 4) out of 15 students competing in any one event as the representatives of their school team. School teams may compete in as many or as few events as they wish at the tournament.

Each team member is limited to competing in the same number of events in a day as there are time slots. For example, if there are six time slots, a student can compete in a maximum of six events. During each time slot, many different events take place at the same time. For example, in the example tournament schedule below, there are six time slots. Any given team member can compete in only one event per time period since a person cannot be in two places at once. So, a team member competing in *Anatomy & Physiology* could not also compete in *Circuit Lab* because they both take place during the same time period (Period 1 for teams 46-60). Each time slot has the same event conflicts regardless of team number.

Visualize a tournament like a track meet. Team members specialize and become experts in several events and compete in these events at the tournament individually and as the representatives for their team. During a track meet, a team member may compete in the Discus Throw and the High Jump and has worked in practice to improve at both of these events. The team member may win a medal individually for each event and his/her performance will also contribute to overall team standings. Similarly, in Science Olympiad, team members compete in events such as Anatomy & Physiology and Disease Detectives and work throughout the year to improve and get better at these events. On the day of the tournament, team members compete in these events to win individual medals and to help bring home a TEAM win. Put simply, each team member chooses several events to become “experts” in during the year, works with a partner, and then competes in chosen events at the tournament with his/her partner to medal individually and to post a high rank for the team.

## ***Scoring Guidelines***

This information is provided so that Event Supervisors, Participants, Coaches and Teams understand how the scoring process will work for Science Olympiad tournaments. Unless explicitly revised by

local Tournament Directors, these National guidelines apply to all officially sanctioned Tournaments. With the sole exception of the Science Olympiad National Tournament, all Science Olympiad Tournament results are determined by local Tournament Officials and their designated Event Supervisors.

## **INDIVIDUAL EVENTS**

The following guidelines and procedures will be applied by Event Supervisors and Tournament Officials with regard to each event.

**Raw Scores and Ranks:** All teams who participate in an event must be scored and ranked as specified in the event rules. Follow the tournament director's instructions for recording and reporting this data (e.g. via a website, paper form, etc).

**Tie Breakers:** All ties must be broken for the ranks to be awarded medals. If a tie for non-medal ranks can't be broken, award points according to the place tied and then skip the next place (e.g. 3 teams tied for 10th place, the next team would be 13th).

**Sort Orders:** Since different events are scored differently, be sure to note whether high scores or low scores are better in term of rank assignment, both for the raw score as well as for the tie breakers.

**Penalties:** Follow the guidelines in the event rules with regard to penalties. When there is ambiguity or uncertainty, note that General Rule # 5 says "Officials are encouraged to apply the least restrictive penalty for rules infractions". See examples below.

**Tiers:** Teams/devices that do not meet the requirements in the event rules must be allowed to compete if possible and are to be notified, scored, and ranked below those who met all of the specifications if specified as so in the rules ("tiered").

**Participation Points:** Teams making an honest attempt to participate that cannot be assigned a raw score (e.g. safety hazard, mechanical failure, wrong dimensions, etc.) must be listed as a "P" for Participation as the raw score and rank.

**No Shows:** Teams that do not show up or make an honest attempt to participate must be listed as a "NS" for No Show as the raw score and rank. This includes teams who may be present but display no preparation for the competition.

**Disqualifications:** It is extremely rare for a DQ to be implemented. Teams that egregiously misbehave/cheat (e.g. excessive vulgar language, Code of Ethics issues, extreme safety violation, etc.), must be listed as a "DQ" for Disqualified as the raw score and rank. This action will disqualify the affected participant/team from participation and scoring in that event only.

**Team Notification:** Any team that is DQed, Tiered, or issued a significant penalty must be informed as soon as possible (e.g. tell the participant/team if still present in the competition area, notify the coach if the competitor is no longer in the vicinity, etc.).

**Event Documentation:** Event Supervisors are expected to provide raw scores and any

documentation (answer sheets, answer key, etc.) to the Tournament Scoring team as soon as possible after the event is done. Help is available at the tournament HQ to grade or tally results.

**Score Counseling:** Supervisors should plan on spending at least 20 minutes after you and any assistants complete scoring all team materials following a process of turning in all materials that contribute to scoring (e.g. tests, answer keys, device checklists, etc.), checking scores, and documenting penalties, tiers, etc. to ensure no mistakes are present in the results tabulation.

## **OVERALL TOURNAMENT**

The following guidelines and procedures will be applied by Event Supervisors and Tournament Officials with regard to determining the overall outcome for teams at a given tournament.

**Team Points:** For each event at the tournament, team points corresponding to the event rank are assigned to that team (e.g. 5thplace = 5 points). The sum of the points equals the team score, which determines the overall team rank (lower is better).

**Points for Participation, No Shows, and Disqualification:** Participation (P) ranks are assigned points equal to the number of teams that competed in the tournament in each division. No Show (NS) ranks are assigned one more point than Participation points. Disqualification (DQ) ranks are assigned one more than No Show. (e.g. at Nationals, P=60 points, NS=61 points, DQ=62 points)

**Team Tie Breakers:** All ties must be broken for the team ranks to be awarded trophies. Ties are broken based upon the number of 1st places, then 2nd places, etc. (e.g. Team A with two 1st and five 3rd places loses to Team B with two 1st and one 2nd place).

**Scoring Errors:** Unless otherwise specified by the tournament director, results announced at the Awards Ceremony are tentative and may change if scoring errors are brought to the attention of the arbitrators within one hour after the results are announced. If changes occur, appropriate medals and trophies will be awarded. Teams will not be asked to return awards given at the ceremony.

**Publication of Final Results:** Tournament directors may make final results available via hard copy, email, or website postings.

## **EXAMPLES OF APPROPRIATE PENALTIES**

While it is the expectation of Science Olympiad that all participants, coaches, and teams will exceed all expectations regarding following the Rules for each event as well as overall conduct and behavior at a tournament as spelled out in the Code of Ethics, applicable Pledges and other relevant communications we do recognize that mistakes and errors can occur. In such situations, Event Supervisors and Tournament officials will refer to the Event and General Rules to determine the appropriate response. The following example penalties are provided to give guidance to Event Supervisors and Tournament Officials where Event and General Rules allow them discretion in their actions. These examples are provided to be illustrative and informative and in no way should they constrain Event Supervisors or Tournament Officials in their decision making. Event Supervisors or Tournament Officials are fully empowered to use their judgement and knowledge of the situation to determine the best course of action in compliance with the Event and General Rules, the Code of

## Ethics and applicable Pledges.

Infraction	Penalty / Reaction
Device presented for impounding does not meet event rules and specs	If impound time remains, competitors may modify device to bring into compliance without any penalty. Otherwise, penalty points or tiering issued per the event rules.
Team caught practicing in prohibited competition facility prior to tournament	A few (5-10) points added to the overall team points total for violating the spirit of the competition.
A competitor's cell phone starts ringing during the competition	Competitor asked to bring the phone to the front of the room and turn it off without any other penalty.
A team brings 2 sheets of notes into an event with a 1 page of notes limit	If discovered near the beginning of the event, confiscation of the extra page without any other penalty. If near the end of the event, tiering below other teams.
A parent observing a team in an open event shouts advice to the team	Verbal warning to the parent after the initial incident without any other penalty. Subsequent incidents result in tiering below other teams.
A competitor becomes verbally abusive and threatens physical violence	Verbal warning to the competitor to calm down and be respectful. If the behavior continues, competitor DQed and coach notified of the situation.

## Scoring in Wisconsin

At the state tournament in Wisconsin, there are 28 events offered and coaches must choose 23 events to do for a team score and five events that will not count towards the team score. This selection needs to be made after regionals but before the state tournament, and teams must do at least three events from each of the five categories of events to be eligible for a team award. Coaches are recommended to select the five events they are expecting to struggle the most in to remove from the team score for the state tournament.

At many invitational and regional tournaments all 28 events are offered and team scores are calculated by dropping a team's five worst events from their team score. Any questions on tournament scoring should be directed towards the tournament director.



## ***Tournaments and Qualification***

There are four types of Science Olympiad tournaments: Invitationals, Regionals, State, and Nationals. Invitational tournaments are often open to any teams, and there is usually a registration fee involved. Teams are allowed to attend invitational tournaments both within Wisconsin and in other states.

All teams qualify for their local geographic regional tournament. Up to 50 varsity teams in each division (B and C) can qualify for the state tournament in Wisconsin through the [state qualification](#) criteria. Up to 10 JV teams (in each division B and C) can also qualify for the state tournament in Wisconsin through the same criteria. Qualifying teams compete at the state tournament and the top placing team in each division (and possibly the second placing team in either or both divisions based on total team enrollment in Wisconsin) qualify for the national tournament in May.

## ***Tournament Schedule***

Division B & C tournaments usually have six time slots in Wisconsin and several events run during each time slot. Additionally, each event is usually run during multiple time slots. For example, in the sample schedule below, Anatomy and Physiology is offered during the 1st, 2nd, 5th and 6th time periods. The sample schedule also shows that all events are offered during the first time block except Astronomy, Disease Detectives, Experimental Design, Geologic Mapping, Ornithology and Solar Power.

Each school team will be assigned a team number. Multiple school teams will be clustered into groups that have the same schedule as indicated by the colors in the sample schedule. Varsity and JV teams from the same school are given team numbers close to each other to ensure that they are placed into the same group and thus compete in the same events at the same time. This is to ensure that no event teams get any unfair hints or tips from school classmates as to how to prepare for the competition.

The tournament schedule given below is a **sample**. It is quite likely that your tournament may look slightly different. ***Be sure to check your tournament webpage for your exact schedule.*** Note, however, that during an Olympiad season the same events typically are run at the same time. For example, in the sample Boyceville schedule below Anatomy & Physiology, Circuit Lab and Code Busters occur at the same time (i.e. during the 1st block for the yellow group, 2nd block for the pink group, 5th block for the blue group and 6th block for the green group), AND these events will also occur simultaneously at other meets in Wisconsin. This means that early in the season when choosing which students will prepare for which events, you should not have the same students working on A&P, Circuit Lab and Code Busters because they will always have event conflicts.

**High School Division C**  
**13th Annual Boyceville Science Olympiad**  
**Invitational Tournament**  
**Saturday, December 7, 2019**  
**COMPETITIVE EVENTS SCHEDULE**



7:45 AM	Team/Event Supervisor Check-In Opens: Commons Area	Team #
All Day	Concession Stand Open in Commons Area	1-15
All Day	Coaches/Event Supervisor Hospitality Room Open in Library	16-30
All Day	Tournament Headquarters in Library - Scoring in Back Computer Lab	31-45
3:40 PM	Gymnasium Opens for Awards Ceremony - Assigned Team Seating	46-60
4:00 PM	Award Ceremony in Gymnasium; Test Packets Available Afterwards	

COMPETITIVE EVENTS	Location	Notes	9:30 - 10:20	10:30 - 11:20	11:30 - 12:20	12:30 - 1:20	1:30 - 2:20	2:30 - 3:20
Anatomy & Physiology	506		46-60	1-15			16-30	31-45
Astronomy	203				16-30	31-45	46-60	1-15
Chemistry Lab	407	EP:C*	31-45	46-60			1-15	16-30
Circuit Lab	410		46-60	1-15			16-30	31-45
Code Busters	620*TCE		46-60	1-15			16-30	31-45
Designer Genes	500		31-45	46-60			1-15	16-30
Disease Detectives	503				16-30	31-45	46-60	1-15
Dynamic Planet	304		31-45	46-60			1-15	16-30
Experimental Design	600*TCE	EP:C			1-15	16-30	31-45	46-60
Forensics	405	EP:C*	16-30	31-45	46-60	1-15		
Fossils	505		16-30	31-45	46-60	1-15		
GeoLogic Mapping	408				1-15	16-30	31-45	46-60
Horticulture	406	I:Yes	16-30	31-45	46-60	1-15		
Machines	200	EP:B I:Yes	1-15	16-30	31-45	46-60		
Mystery Design	612/613*TCE	I:Yes	31-45	46-60			1-15	16-30
Ornithology	502				1-15	16-30	31-45	46-60
Solar Power	602*TCE				1-15	16-30	31-45	46-60
Protein Modeling	202/204	I:Yes	1-15	16-30	31-45	46-60		
Water Quality	501	EP:C	1-15	16-30	31-45	46-60		
Write It, Do It	610/611*TCE		16-30	31-45	46-60	1-15		
Boomilever	300	EP:B	Self Schedule Online					
Detector Building	603*TCE		Self Schedule Online					
Geocaching	207		Self Schedule Online					
Gravity Vehicle	400	I:Yes	Self Schedule Online					
Ping Pong Parachute	105	EP:B	Self Schedule Online					
Robo Cross	400		Self Schedule Online					
Sounds of Music	301		Self Schedule Online					
Wright Stuff	601*TCE		Self Schedule Online					

All impounds open at 8:45 AM and close at 9:30 AM. Impounds occur at event locations.  
 Self-Scheduling performed by coaches at Avogadro: <http://avogadro.ws/hosted/wi-boyceville-c/public/index>  
 Team numbers and homerooms posted at: <http://scienceolympiad.boycevillescience.com/index.php/invite>  
 \*Event Located at Tiffany Creek Elementary School - Shuttle Every 15 Minutes from Front Circle

Version 3.0 11/26/2019 EP = Eye Protection I = Impound \* = Safety Clothing Required  
 A: Safety Spectacles with Side Shields Z87 B: Impact Protection Z87+ C: Chemical Splash Protection

## **Coach**

A team must have a head coach. A head coach registers and manages the school or organization's teams via the WSO website ([www.wisconsinso.org](http://www.wisconsinso.org)) and serves as the point of contact for tournament organizers. The head coach may be a parent, teacher, principal, business person, community organizer, or any other caring adult, but must be approved and aligned in some way with the school district. Successful teams are organized and supported by a head coach that is willing to make decisions and provide leadership. The head coach must be aware of all the rules, manage the coaching resources, recruit students and assistant coaches, involve the parents, and provide a clear reason for the team to prepare and compete. Coaches should have the following qualities:

- Anyone who has a genuine interest in young people
- Anyone who is willing to stick with the team and see the job done
- Anyone who is willing to take the responsibility for the team at events
- Anyone who loves science, math, engineering and competition
- Anyone who has zeal and passion for authentic learning
- Anyone who wants to make a real difference in the lives of students

WSO follows a "Never Alone" policy to help ensure the safety of our students and volunteers. This means that volunteers should never be alone with a student who is not related to them. WSO also requires that coaches have all people helping with their team register with their school as a volunteer and complete the school district's background check procedure. As a reminder, the students are never in the care, custody or control of the WSO volunteers.

## **Training**

WSO staff and representatives will be providing virtual training, networking, and professional development sessions remotely via Zoom for the 2021-2022 season. These Zoom sessions will feature the opportunity to ask questions to veteran coaches and WSO staff, network with other coaches, and learn new tips and techniques. Training is also available the third Saturday in October each year at the Boyceville Coaches Clinic both in-person and virtually. Visit the WSO website to find out more information about this year's Boyceville Coaches Clinic. Additional resources are also available on the [WSO website in the Resources section](#) as well as on the [National Science Olympiad website](#). These webpages have lessons, links, tips & videos to help students prepare throughout the year.

## **Cost**

The registration fee for each team is \$300, but there is a reduced rate of \$60 for new teams for the first two years! New teams (within the past five years) are teams that have not been a member of Wisconsin Science Olympiad within the past three years. In addition, teams beyond a second team from a school are charged only \$100 per team. All registration fee policies can be found on the [WSO website](#).

This fee helps cover the cost of running the regional and state tournaments and pays for facility fees, equipment, materials, trophies, and medals. Teams may also incur the cost of transportation to and

from the tournament site, lunch and snacks on the day of the tournament, and purchasing materials used for practicing for events (although most materials needed for events are commonly found at home and in educational settings). You DO NOT need to pay for your team when you register online. You can go back in and pay or submit a check any time up until the time of the competition. If you register a team and later find that you will not be able to compete or will be bringing less teams than you originally planned, please contact the state office immediately. We must know at least 6 weeks in advance about your change in registration or your team will still be charged the registration fee.

## ***Timeline***

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 red)** to those things expected from an experienced team.

**August** – Planning begins! Event rules are being completed by National SO committee but the event list will be available on both the [NSO](#) and [WSO](#) websites. NSO has 23 events on their schedule for both Division B and Division C. In Wisconsin we offer 28 events in both divisions. We choose 5 additional events to spread out the event possibilities a little farther and potentially give some students and teams not only more variety in event selection but also more opportunity to earn individual medals. Our state website will be updated in August with the event slate we plan to run.

- **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 membership rules for organizing a team** at [www.wisconsinso.org](http://www.wisconsinso.org) under Tournament Info - Policies and Forms
- Register your team on the [WSO](#) web site (You must register for each team you plan to bring; you can pay at a later date). You can register by clicking the “Join” link at the top of the page.
- 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 “tournaments” page on the website.
- 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.

**September**--- Event rules are available to download! Read event rules carefully. Regional and Invitational tournaments are posted on the WSO website. You will be assigned to a regional, but you have the option to attend as many Invitationals as you wish and can even see if there are openings at other regionals as well.

- **Register your teams** for Wisconsin Science Olympiad.
- **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 website in the Events Clarification section.

- **Hold first team organizational meeting or an “open house/interest” 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.
- **Distribute copies of event rules** 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.
- **Watch for the WSO state tournament schedule** to see the distribution of events. This will help students determine which events they want to compete in. For example if a student is interested in Disease Detectives and Food Science but they are in the same time slot then the student will have to choose one event - they cannot compete in both.
- **Start gathering resources, study materials, supplies, and mentors.** Build an 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 sometimes be used.
- **Consider having the students design a team shirt to wear at competitions.** Consider a design competition for the students and make sure to order the shirts in time for competition.

**September through October** -- 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 workshops 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.)*

- **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.)
- Regionals publish their tournament schedules in early fall. They are posted on each tournament's webpage. 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.
- The State tournament schedule is published and posted in September. Regional tournament schedules commonly follow the state tournament schedule. Invitational tournament schedules also commonly follow the state schedule if the invitational is in Wisconsin.
- **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.)
- Network with coaches from neighboring schools.
- **Plan team dinners or a “team night”** with food/snacks for team building.



**November - January** --- In November, 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 they are often waived for new teams. The cost is well worth the experience that students gain from participating in them. Invitational information will be posted at the WSO web site as it becomes available to the State board.

- **Attend the coaches meeting at your regional tournament site, if available.** (This information will be sent to you by your regional director.)
- 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.** (permission slips & paperwork required by your school and your regional director). This can also include logging in to Avogadro and entering competitor names and signing up for self-scheduled events. Make sure you adhere to deadlines for paperwork submission.
- **Organize transportation** for the team to the regional tournament site.

**February – March** – This is the time period for most Wisconsin regional tournaments, though sometimes some happen as early as January. The last few invitationals often happen in this time period as well.

***This is “crunch time”. It can be a very intense time for students and for the coach. HANG IN THERE !!! Enjoy this time...it means the kids are excited about what they are doing which is wonderful that they are engaged in STEM Activities!***

- **Make sure you have all required regional tournament paperwork completed and submitted.** Some regionals 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**

**March/April**-- The State tournament is usually held in late March or early April at a university in Wisconsin. The top team 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.
- If your SCHOOL is not invited to State, but you have students who take First Place in

combined V & JV scores in a specific event, they will be invited to State to compete in that specific event.

- This is a great incentive to individuals on a new team to do their best as your team grows
- If you did not qualify for State, you may want to volunteer at the State tournament to see how it is organized.

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

- Collect the resource materials that your team used and created this season. It is very helpful for creating year-to-year continuity and improving your team 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 WSO web page for updates over the summer. New event rules don't come out until the beginning of September, 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 season opens around September 1st.

## **Other Useful Information**

### **Paperwork/Administration**

All must follow competition rules. The State Tournament is required to collect the names and grade levels of the team members who will be competing. The Principal or head of the school must sign this list. We also request 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 need to keep student medical forms and be able to show that you have them available if asked at the tournament.

### **Wrist Bands & Other Identification**

The State Tournament uses wristbands for students competing to wear to identify themselves as legitimate competitors. The wristband must be worn to enter an event.

### **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.

There is a lot going on at a tournament and your efforts to help students stay organized is important. 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 – this can be printed from the scoring program, Avogadro, in advance.**

**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. Impound just means that the students need to turn in their device before the competition starts. Usually there is a time period for impound, and students should simply bring their device and any other parts needed to be impounded to the location for the event during the impound time period. **Make sure you have your team name 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, as these events are open to the public.

When not competing, your students can 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 teammates watching as you run your Mission Possible, Ping Pong Parachute, plane, or other engineering event. And encourage your team members to cheer each other on! Just remember that students, parents, or coaches cannot communicate with students who have entered the competition arena until they are finished.

Encourage students to stay in their event for the full time. They should double-check work before turning in anything for grading. They should put their team name on every single page they turn in just in case papers get separated by supervisors during the grading process.

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. But be respectful of their intellectual property. **Teams are not allowed to take pictures of another team's devices. Pictures can only be taken of their team's devices.**

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
- Roll of duct tape (just in case), screwdriver, 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 or your school's web site or social media.)*

## 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.
- **Arbitration** – This is the process which allows a coach to file a complaint concerning the way his/her 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 tournament director before filing for arbitration. Often, things can be resolved at that point. Most tournaments have paperwork that must be filed within a specified time frame as well as a designated person(s) who will determine the outcome. Most tournaments require that only the head coach for the team file for arbitration.
- **Associate Director** - Assists the State director in all matters related to the organization. Helps develop resources for coaches and event supervisors. Some of the State tournament responsibilities include recruiting Event Supervisors and YESS team members, assigning volunteers to events, and organizing hotel accommodations.
- **Avogadro** - The online scoring system used at the Regional and State Tournaments in Wisconsin, as well as most invitational tournaments.
- **Coach** – This is used to describe 2 kinds of people in the organization. The Head Coach, who is in charge of the logistics and direction for the whole team, and the Event Coach, who has worked with a smaller group of kids to prepare for a specific event. When we ask to speak to a coach at the tournament, we always mean the Head Coach.
- **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 “tournament director.”
- **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.
- **Event Volunteer** - Often college students, but can also be parents, teachers, or anybody else interested in helping with events. Each Event Supervisor will identify the number of volunteers they need to make their event run smoothly at a tournament.
- **First Place Overall Winner (FPOW)** - Schools that do NOT qualify for the State Tournament are allowed to participate in the First Place Overall Winner Program. In the event that a school’s Varsity team does NOT qualify the school for the State Tournament, individuals from that school, whether on a Varsity or Junior Varsity team, may advance to the State Tournament to compete ONLY in events the individuals placed first overall in at the regional competition.
- **Headquarters** – Most regionals 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.
- **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 rulebook. Tournament schedules will indicate the time and location where impounding will take place.
- **Invitational** – Practice tournaments organized by schools are called invitationals. They are

useful to practice learned material, get copies of tests to use for study purposes, and compare team-built devices to those made by other teams. To find available invitational tournaments in our state, review the list on the WSO website. To participate, register with and pay the organizer. These events are not “by invitation”, but are open generally to all registered teams, on a first-come, first-serve basis, and may attract teams from beyond WI. The exact roster of students you register for these events is not required to match the roster you bring to other tournaments.

- **Junior Varsity team** – A team that can compete in invitational competitions and in *some* regions at the Regional Tournament, but not in State or National tournaments.
- **Regional** – In Wisconsin, there are 4 Division C regional tournaments and 2 Division B regional tournaments. A regional tournament is the competition between teams from that local area, and qualifies a portion of them to participate in the State tournament.
- **Registration** – Team registration opens around September 1st for the following year’s competitions. Registration takes place at the WSO website ([www.wisconsinso.org](http://www.wisconsinso.org)). Choose the tournament that your team wants to participate in from the registration page and register the number of teams you plan to bring. Your payment options include paying immediately by credit card or sending a check to the state office. ***Teams that have not registered and paid the membership fee 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 tournament 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.
- **Spirit Award** – At many tournaments, volunteers and staff are looking for examples of good sportsmanship and overall “spirit” from team members. They turn in nominations during the day and a team from each Division is awarded a spirit award at the closing ceremonies. This is a coveted award each year as teams work to exemplify good sportsmanship by cheering on and helping their team and others.
- **State** – The State competition is typically held in March or April at a university in Wisconsin. Invitations to the State tournament from each regional are allocated based on the state tournament qualifying procedures. The top division B and division C team are invited to compete at the National tournament held in May. Three criteria need to be met for a team to qualify for the state tournament:
  - Participate in at least 10 events in a regional tournament in their geographic region
  - Provide at least one regional Event Supervisor or Assistant as well as the materials, exam, equipment, and personnel for at least one regional event
  - Finish in the Top 50 medal count among varsity teams for all regional tournaments
  - See the WSO website for additional information on [state qualification](#).
- **Team** - Another term with 2 meanings. The Team as a whole is the 15 members representing their school or group. There are then the individual teams of 2 or 3 going in to represent the Team in events.
- **Trial event** – This is an event that is typically new and we are trying it out to gauge interest and work out kinks. Students receive medals just like all the other events, but it does not count towards the team trophy.
- **YESS Team** - This stands for Your Event Supervisor Support. YESS team members are part of the state tournament organizational team. Each YESS team member is assigned to 1 - 4

events and ensures the Event Supervisor has everything they need, helps with checking in students, discusses any issues with the head coach, monitors crowd control in hallways and around events, assists anyone with questions, and helps enter scores into the online scoring program.

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