INDIANA SCIENCE OLYMPIAD STATE TOURNAMENT

EVENT SUPERVISOR GUIDE

The objective of a Science Olympiad Tournament is to provide fair, inquiry-based, and representative challenges based on the current rules for the events.

This guide is designed to help you construct an event that aligns with the rules and spirit of Indiana Science Olympiad. Event supervisors are the most important people in a Science Olympiad Tournament. Event supervisors take on the responsibility of preparing their events in accordance with event rules and provide outstanding, challenging, and FUN events for participants. If you have any questions regarding your event or the Indiana Science Olympiad State Tournament please don't hesitate to contact me.

SERIOUS BUSINESS

Coaches and teams prepare all year to compete in these tournaments and they demand exceptional events that follow the *current year event rules*. Being an event supervisor is a serious responsibility and hundreds of students will be depending on you to provide a top-notch event.

AWARDS

Winning teams advance on to the National Science Olympiad tournament. Every event counts equally in the overall team score. The individual winners (1st-5th place) of every event will receive Olympic-style medals.

PREPARATION & RULES

The first thing you need to be sure of is that you have a copy of the **current** year's rules and follow them carefully. The rules for each event change from year to year. If you have run the same event before, you CANNOT assume you can do the same things again. The event that you create should align perfectly with these rules. You don't have to include every topic or concept in the rules. However, please do not create an event that covers topics or concepts not specifically covered in the rules.

You may be running the same event for both Division B (Middle School) and Division C (High School) if the event is in both divisions. About 50% of the events fall into this class. Usually, the rules for Division B and Division C are very similar. We suggest using the SAME event for both, but making slight adjustments so that the event is appropriate for each level. Don't be surprised if the middle school participants outperform the high school participants! In some cases, the rules for the two divisions may be quite different. Please read the rules very carefully for each event that you will be supervising.

SCIENCE OLYMPIAD EVENTS FALL INTO THREE CATEGORIES:

1. **Construction events** where devices are made before the competition and require special testing equipment, etc. (e.g. Electric Vehicle, Helicopters, Hovercraft, Mission Possible, etc.,)

2. **Content-based and/or hands-on lab-type events** that can be run as stations or individual test type events. (e.g. Anatomy & Physiology, Ecology, Optics, Road Scholar, etc.)

3. **Onsite events where students build, test, or do something** that is not prepared beforehand but is tested on site and may require special test equipment, usually less complex than the devices built ahead of time. (Aerial Scramble, Experimental Design, Game On, Write It Do It, etc.)

SCIENCE OLYMPIAD EVENTS ARE USUALLY RUN IN ONE OF THREE WAYS:

1. In a set time period (e.g. starts at 8:30 am and ends at 9:30 am)

2. In a walk-in style which means the participants have a period of time during which to come to do their event (2017 State does NOT have an event that fits this category)

3. Some events are run by appointments where teams sign-up for a specific time (Aerial Scramble, Electric Vehicle, Helicopters, Hovercraft, Mission Possible, Scrambler, Towers, Wright Stuff, Robot Arm, among others fall in to this category)

The tournament schedule will let you know if your event is "sign-up for a time" if you're not sure.

THERE ARE FOUR POSSIBLE EVENT FORMATS:

Method One – Station/ Rotational Format

- This method is much easier in some ways since the teams involved would simply rotate through the event answering 1 to maybe 4 questions per station.

- Care should be taken to try to design each station to require about the same amount of time. Usually 14 to 16 stations are quite sufficient which means about 2 to 3 minutes per station.

- If more teams are present than stations, simply have either rest stations periodically in the room or have some teams wait to enter the rotation.

- Number your locations and arrange them so that the students can quickly and easily move from one location to the next one. Make sure that everyone has writing utensils, extra paper, and any other required materials before they enter the room.

- Before you begin you should check every team to make sure they are there. Every official competitor will have a wrist band with their team number on it.

- It is important to have all of the questions faced down until you are ready to begin. It is important that no one has seen the questions before you begin.

- They must take their answer sheet and writing materials with them as they move. Remind them to look only at their own answer sheet and to keep any conversations at a whisper so that they do not let others hear their answers.

- It is advisable to tape down the question sheets at each location.

- The event leader must choose the length of time between locations and make sure that it remains exactly the same throughout the entire contest. The number of teams present determines the length of time. The State tournament will have 36 teams competing – 12 teams per hour. So please make sure you have enough stations and that the time at each station is the same. Some events have allowed only one minute per location when only an hour is available in the event period. Try to choose a time that will give students the maximum time without causing you problems.

- The event can not run overtime. That would be a serious problem as most competitors need to get to their next competition on time.

- Tell them that anyone tampering with the materials in an effort to confuse or delay other teams will be **disqualified** from the event. It is very important that each team find the questions and materials in the same order as all other teams.

Method Two – Stationary Format

- This method is very similar to the more typical test that students are accustomed to BUT should include applications and hands on activities as much as possible. The Science Olympiad discourages paper and pencil testing that resembles tests given in a classroom setting.

- This type of event preparation should also include graphs, diagrams to interpret, observations to make about a set up of some type, interpret information presented in a video, questions about a demonstration that might be performed for the entire group, etc. This requires more preparation as far as copies of the event, etc.

- CAUTION: This type of event is usually slower to grade and this must be considered when preparing the event.

- A student or team of students will sit in one location for the duration of the contest. All of the questions and materials that they will use are at that location. They may be provided with an answer sheet so that they do not mark on the questions or other materials.

- The event leader should design enough questions for the event period, an answer sheet and key. Make sure that you know the number of teams in advance, so that there will be enough copies and locations for the teams to sit.

- The event leaders usually make the copies that they will need. If you need for us to make copies for you, make sure that we receive your materials that are to be copied well in advance of the tournament date.

- Before you begin you should check every team to make sure they are there. Every official competitor will have a wrist band with their team number on it.

- Each team must have all of the questions, pictures, specimens, etc. at their disposal.

- If the event period is 60 minutes, prepare the event so that it will take about 45 minutes to complete.

- There is a tendency for some event leaders to lean toward a written test with recall answers. Some events have one part that consists of test questions but it is the philosophy of the Science Olympiad to emphasize process skills and mental challenges. Events run this way may contain some recall-type questions, but most questions should emphasize critical thinking and reasoning. Questions that ask students to observe, describe, evaluate, analyze, apply, predict, interpret, classify, measure, infer, hypothesize, explain, and make judgments should be used.

- When these events are completed it is important to get a team of assistants to help you score the answer sheets as quickly as possible. If you need assistance, you will find a team of volunteers in the Science Olympiad headquarters that will be able to assist you in grading – be sure to have extra key's if you plan to get help from us.

Method Three – Lab Practical Set Up

- This method is something of a combination of the first two methods where the team has its own set of materials or equipment with which to perform an experiment or whatever is required. While the team does NOT rotate through stations, this is similar to that method because each team has a set of materials. Obviously this requires more set up on the part of the event leader and should be a factor that is strongly considered in terms of the room in which the event is held, number of teams competing, etc. The event leader could have 3 sets of 6 or 8 identical stations, and the teams know they must complete one station in each set. If more than one lab station will be completed by students during the contest, it is important to have multiples of each station so that every team has the same amount of time at each station and no one has to wait on another team. Therefore it is important to know the maximum number of teams that will participate well in advance of the tournament date.

- Materials, tools, and supplies (such as water, pH paper, reagents, etc.) are placed at marked locations for their use during the labs.

- Safety is a critical issue and student must wear the designated safety equipment at all times in the lab.

- It is important that the event leader have everything ready-to-go.

- Before you begin you should check every team to make sure they are there. Every official competitor will have a wrist band with their team number on it.

- After the initial instructions, the leader should circulate throughout the lab to observe students, answer questions, and provide for their safety. It is a good idea to have an extra set for each station in the event of an accident.

- Be sure to warn students about safety and tell them that anyone tampering with the supplies to hinder the work of other teams will be disqualified immediately.

- Most lab events are usually scheduled earlier in the day to give you sufficient time to score the results, but it is still important to get the results to the scorers as soon as possible.

Method Four- Construction/Performance Format

- Some of these events require students to construct a device prior to the tournament and others have students build a device during the competition.

- It is very important for the event leader to be very familiar with the specifications for the device. Think about exceptions and challenges to these rules and contact your TOURNAMENT DIRECTOR (Tina Gilliland) prior to the contest if you have questions. All frequently asked questions and clarifications will be posted on the Indiana Science Olympiad State Tournament website at go.iu.edu/sostate. Be sure to check that link for your event. Make special note of the events that require impounding.

- Typically devices can fall apart or get slightly damaged while traveling on activity busses. If a team shows up with a device that does not meet all specs, we generally let them make minor corrections on the spot (if this does not give them an unfair advantage). Usually this is as simple as something sticking out of the device that can be tucked in or removed. If we can allow students to make simple corrections (quickly), we would rather do this and let them compete than send them away in a "cold-hearted" fashion.

- If a device is unsafe but could be made safe by the removal of some part or object, we usually allow the student to do this and continue. This must be done prior to operation. If a device becomes unsafe during the event, we must stop it at that point. We do not compromise safety.

- If the team can not get their device to meet all specifications, then most events have a provision for them to continue to compete if the device will work. However, none of the devices that fail to meet specs are allowed to rank higher that any device that did meet the specs. Make sure that you are clear on this point for your event. If a device will not operate at all it is still important to record that the team did show up with a device and participated. Be sure to record any team that was absent from your event.

- A score sheet for all of the construction events can be found under the resource links on our website. Some score sheets are in EXCEL. If you prefer a paper score sheet, I will work on getting one for your event. Please use the appropriate score sheet for your event. You will need to make copies unless you ask us to make them for you on the "Event Supervisor Information Form". You will also need to bring any measuring devices, stopwatches, and calculators that will be needed unless you request them from us.

Other Things an Event Leader Should Know

- You will receive an "Event Score Sheet" from us that has each team listed, be sure to check to see who is present. You will turn in this Event Score Sheet with the rankings and raw scores on it. You must break ALL TIES.

- After running your event, be sure to score it as quickly as possible and bring the tests or data used in scoring and your Event Score Sheet to the Scoring Room. NOTE: We keep the tests and raw data in case someone challenges a placing of the event.

- ALWAYS be sure to have everything you need before you arrive at the competition which includes the following.
  - enough copies of any testing materials for all the teams
  - all equipment needed such as stop watches, balances, etc. DO NOT assume the tournament director is supplying this type of equipment unless you ask ahead of time and then arrange to get these materials before the day of the tournament.

- DO NOT discuss the performance or expected placing of ANY TEAM or student at any time. This creates a lot of confusion at times when results are not what a team expects.

- Make your event easy and fast to grade. If you are running an event the last part of the day, be aware that scoring needs to be especially quick since the awards program usually takes place as soon as possible after the events end. If you are in the last time period, you need to have your scores to the Scoring Room within 30 minutes of the end of the event.

- Prepare answer sheets that can be scored quickly. Do not hesitate to use multiple choice type questions or questions with simple answers that are one word or a few words as well as short answer questions. Some events lend themselves to identifying unknowns, etc.

- DON'T MAKE THE event TOO long ... it is okay if they finish before the time period ends. This is a common problem with first time event leaders.

- Be sure to design your event so that it lends itself to being "placeable". By this we mean the event must have something that is gradable and that will produce a score for each team. THERE MUST BE NO TIES.

- Be sure to read to see if the rules provide recommendations for breaking ties. TIES MUST BE BROKEN. The best way to break ties is to select parts of your event or certain questions to use. Score all parts of the event and then if ties exist, use the team's score on the part of the event you selected. It would be good to have more than one area selected in case a tie exists after the first tie breaker is used. TIME IS NOT A TIE BREAKER in content based events.

- Be sure to have some place on the answer sheet or event materials for the students to write their team/school name and their names.

- WHATEVER you do, it is critical to be sure that all teams receive the same testing conditions.

QUESTIONS??

Please make sure that you have clear answers to the following questions:

- How many teams of students should I prepare for?

- What time does my event start?

- How much time do I have for my event and what is the basic format I should follow? (formats discussed above)

- What type of room will my event be held in?

- How am I to rank my teams?

- Do I have a copy of the CURRENT rules for my event?

- What materials will you provide and what materials am I to provide?

Finally, use the Indiana Science Olympiad State Tournament Website!!! This is chalked full of information and should be used to answer many of your questions. Resources for every event are posted to assist coaches and students in preparing – you should use these resources to help you understand what kind of preparation the students will have. Under NO circumstance may you use any of the sample tests that are posted – students will have memorized these, so please write something original. Be sure to check for clarifications to rules for your event as well. Make sure you are the expert and are well informed about the event you are leading.

Thanks again!

Tina

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