



# Kansas Science Olympiad

**Welcome  
New Coaches!**



# Science Olympiad Philosophy

To improve the quality of science education, increase student interest in science, and provide recognition for outstanding achievement in science education by both students and teachers.

**Have fun doing and learning some science!**



# History of Science Olympiad

- Started in 1985 after successful state tournaments in Delaware and southeastern Michigan.
- Seventeen states participated in that tournament; now there are over 13,500 schools from all 50 states participate.



# History of Science Olympiad

- The first state of Kansas tournament was held in April 1988 at WSU.
- Currently we have 4 regional tournaments that serve as qualifying tournaments for state. About 60 middle and 60 high schools participate at regional tournaments.
- The top two teams in each region plus a percentage are invited to state for a total of 30 teams in each division.



# Events - Chemistry Lab





# Events - Rocks & Minerals







# Events - Road Scholar



# Events - Write It Do It







# 2019 Physical Science & Chemistry Events

- Chemistry Lab (C)
- Circuit Lab (B & C)
- Crime Busters (B)
- Density Lab (B)
- Forensics (C)
- Potions & Poisons (B)
- Protein Modeling (C)
- Sounds of Music (C)
- Thermodynamics (B & C)



# 2019 Earth & Space Science Events

- Astronomy (C)
- Dynamic Plant (B & C)
- Fossils (B & C)
- GeoLogic Mapping (C)
- Meteorology (B)
- Road Scholar (B)
- Solar System (B)



# 2019 Life, Personal, & Social Science Events

- Anatomy & Physiology (B & C)
- Designer Genes (C)
- Disease Detectives (B & C)
- Heredity (B)
- Herpetology (B & C)
- Water Quality (B & C)



# 2019 Technology & Engineering Events

- Battery Buggy (B)
- Boomilever (B & C)
- Elastic Launched Gliders (B)
- Mission Possible (C)
- Mousetrap Vehicle (C)
- Roller Coaster (B)
- Wright Stuff (C)



# 2019 Inquiry & Nature of Science Events

- Codebusters (C)
- Experimental Design (B & C)
- Fermi Questions (C)
- Game On (B)
- Mystery Architecture (B)
- Write It Do It (B & C)



# Event Information

Additional info about the events, as well as materials to download or purchase, can be found at the Science Olympiad (national) website:

[www.soinc.org](http://www.soinc.org)

The screenshot shows the Science Olympiad website interface. At the top, there is a dark navigation bar with a 'MENU' link on the left, 'My account' and 'Log out' links on the right, and a search icon. Below this is a header section with the Science Olympiad logo on the left and the text 'SCIENCE OLYMPIAD' in large white letters on the right. Under the logo is the tagline 'Exploring the World of Science'. Below the header, there are two buttons: 'View' and 'Devel'. The main content area features a green banner with the text 'GET READY FOR THE 35TH ANNIVERSARY SEASON!'. Below the banner, a paragraph of text describes the organization's history and activities. At the bottom, there are three image thumbnails: 'Tournaments' showing a group of students and adults celebrating, 'B/C Events' showing students working on a project, and 'State Websites' showing students holding a banner for 'Daniel Wright'.

**MENU** My account Log out

**SCIENCE OLYMPIAD**  
Exploring the World of Science

View Devel

**GET READY FOR THE 35TH ANNIVERSARY SEASON!**

Free [online Rules Manuals](#) available now! Founded in 1984, Science Olympiad is one of the premier science competitions in the nation, providing rigorous, standards-based [challenges](#) to nearly 8,000 teams in all 50 states. We host 450 [tournaments](#) annually on college campuses and hold professional development [workshops](#) that showcase innovative science, technology, engineering and math (STEM). Form a team and join through your [State Chapter](#) today!

**Tournaments**

**B/C Events**

**State Websites**





# Getting Started

To compete in the Kansas Science Olympiad, you must complete the following:

- complete Online Registration (<https://statescioly.org/ks>)
- mail in Registration Invoice with Check
- form your Science Olympiad team
- practice, practice, practice!

More info can be found at KSO website:

[sites.google.com/view/ksscioly](https://sites.google.com/view/ksscioly)

Or at the National SO website:

[www.soinc.org](http://www.soinc.org)



# Getting Started - KSO Website

KSO Home

[Home](#) [News](#) [About](#) [Tournaments](#) [Events](#) [KSO Login](#) [Q](#)

## Kansas Science Olympiad

Welcome to the new home for Kansas Science Olympiad! Please follow the navigation below to find more information on this program. Any additional questions can be directed to Jill Fisher at [jill.fisher@wichita.edu](mailto:jill.fisher@wichita.edu) or 316-978-6503.

[News and Quick Information](#)

[About Kansas Science Olympiad and Additional Resources](#)

[Tournaments](#)

[Science Olympiad Event Lists \(Divisions B and C\)](#)

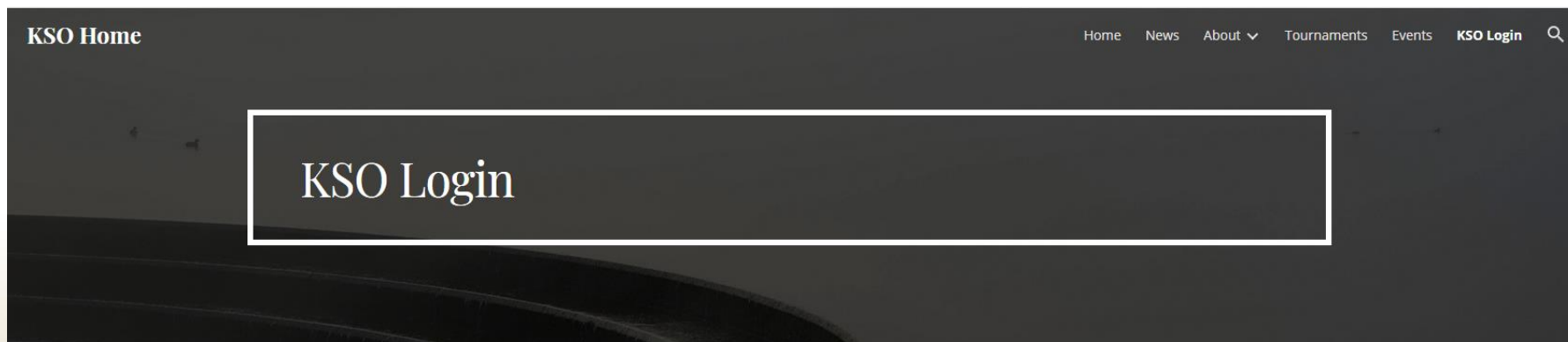
[KSO Login \(For Coaches\)](#)





# KSO Registration

Complete your on-line Kansas Registration Form



All coaches, tournament directors, and event coordinators are invited to use the new [Kansas Science Olympiad registration site](https://statescioly.org/KS). After creating a new user profile, please make sure to designate your role. Tournament directors will need the state director to register them as such. ALL COACHES MUST USE THIS PROGRAM TO REGISTER THEIR TEAM(S)!

This program has been made possible by Scilympiad from SoCal Science Olympiad.

Link to registration:  
<https://statescioly.org/KS>



# KSO Registration

## Complete your on-line Kansas Registration Form

https://statescioly.org/KS

Search

Kansas Science Olympiad

[Coaches](#) [Tournament](#) [Policies](#) [Volunteer](#) [Resources](#) [Log in](#)



*Exploring the World of Science*

Science Olympiad is nationwide competition. Students compete in 23 events that include earth science, biology, chemistry, physics, and engineering. Science Olympiad is designed to increase a student's interest in STEM fields and provide recognition for outstanding achievement in team events. Students compete in Science Olympiad with the top teams advancing from Regional to State to National levels.

Questions about Kansas Science Olympiad can be directed to Jill Fisher at [jill.fisher@wichita.edu](mailto:jill.fisher@wichita.edu).

Register your school

Participating schools

Division B Events

Division C Events

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[Contact](#)



# KSO Registration – Register Your School

## Registering a school

**Kansas Science Olympiad** Coaches Tournament Policies Volunteer Content ES

**School Registration**

Head Coach Dashboard

Workshop

You are not associated with a program or school based on your login Email. Have you? If you're a head coach and haven't registered your school, click here to register your school.

**Register School**

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**Kansas Science Olympiad** Coaches Tournament Policies Volunteer

**Register Your School**

Schools are listed alphabetically. Select your school or [Register New School](#) if it's not in the list. To complete the registration process, 1) register your school.

You can search for your school by typing it in the box below the **School** heading.

School	District	Division
Abe Hubert Elementary	USD 457	8

**School Profile and Head Coach Registration**

Please don't type all capped letters.

**School Name** required - Full official school name

**School Short Name** Abbreviation - e.g. ABBR SO

**SO Division** Select Division

**Your SO Regional** Select a regional

**School District** required - Full official district name

**Principal Name** required

**Principal Email** required - be accurate

**School Type** Public

**Beginning Grade** 6

**Final Grade** 8

**Title I School** ☐

**Small School** ☐

**Program Website URL** Optional, http://Your\_SO\_HomeURL - be

**Program Description** (Please complete this section - important)

Please assist our Science Olympiad program with its marketing and fundraising efforts by describing your school SO program in this section. Participating Schools page is the most visited page by sponsors, prospective



# KSO Registration – Adding a Team

## Registering a team

Kansas Science Olympiad

Coaches • Tournament • Policies • Volunteer • Resources • Jill •

Northeast KS Division B Regional - Division B - Sat, Feb 23, 2019 [switch tournament]

Head Coach Dashboard

Set up

Register / Update Teams

Co-Head Coaches

School Profile

View / Pay Registration Fees

Signup

Team Event Signup

Self-Scheduled Event

Headquarter Signup

Invitational Signup

Readiness

Upload Documents

Submit Team Roster

Releases

Verification / Checklist

Competition Day

Appeal Form

Tournament Results

Score Inquiry

Future Function 2

Team Management

Looking for a team management system or a website for your school Science Olympiad? Check it out here =>

Team management system

This dashboard is reserved for Head Coaches and Co-Head Coaches to manage team-related functions.





# KSO Registration – Adding a Team

## Registering a team

Kansas Science Olympiad

Coaches • Tournament • Policies • Volunteer • Resources • Jill •

Northeast KS Division B Regional - Division B - Sat, Feb 23, 2019 [\[switch tournament\]](#)

Team Management

Each school may send one team to a qualifying tournament (Regionals and State).

Tournament Total Team Limit: 40, Current Total Signups: 32, Per School Limit: 1, Your Paid Teams: 1

Add a team

View/Pay Registration Fees

Head Coach Dashboard

Team #	Team Name	Number of Students	Official	Action
	FaCSME A Team	16	<input checked="" type="checkbox"/>	<a href="#">Edit</a>   <a href="#">Remove</a>
	FaCSME B Team	15	<input type="checkbox"/>	<a href="#">Edit</a>   <a href="#">Remove</a>

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Contact

Reminder: additional teams are only allowed to compete at Invitational Tournaments.



# KSO Registration – Payment

Find the “View/Pay Registration Fees” on the Head Coach Dashboard

Kansas Science Olympiad

Coaches ▾ Tournament ▾ Policies ▾ Volunteer ▾ Resources ▾ Jill ▾

Northeast KS Division B Regional - Division B - Sat, Feb 23, 2019 [switch tournament]

Team Registration Payment

Teams are required to pay fees to National and State Science Olympiad in order to participate in any Invitational Science Olympiad tournaments OR beyond (Regional, State, and Nationals). Teams are not officially registered until payment is received and processed.

Registration Fee Summary

Total teams registered:	2
Base fee \$60.00 per team x 1 teams:	\$60.00
<b>Total registration fees:</b>	<b>\$60.00</b>
Previous paid amount	\$150.00
New registration amount	\$60.00

Make changes

Pay by check

Total registration fees: \$60.00

Make checks payable to "Wichita State University" Please Mail to: Jill Fisher Wichita State University  
1845 Fairmount Street Box 32 Wichita, KS 67260-0032

Print Invoice

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Contact



# KSO Registration – Continued

- Make sure you include a copy of your invoice(s) with your check. That is the only way of knowing which school's payment we have received.
- Make sure campus box 32 is included in the address. This insures that we receive the payment and not some other department on campus.
- You can check on the “View/Pay Registration Fees” to see if we've received your payment.



# KSO Registration – Continued

Completing your Kansas registration automatically registers you for a regional tournament. Registration should be completed by November 2, with regional assignments made by November 16.

(Please note that in some areas of the state, the regional tournaments have been near capacity. In those cases the earlier you register, the greater the chance you will be assigned a spot in the regional of your choice.)

Regional assignments for teams registering after November 2 will be made on a case by case basis.

Last day to register is December 7, 2018.



# Organizing a Team

A Science Olympiad Team consists of no more than 15 competing members.

- Team members must all attend the same school except that a middle school team may ask a maximum of 5 ninth graders that were on the team the previous year to return.
- Middle School / Junior High teams may not have more than five 9th graders
- High School teams may not have more than seven 12th graders.
- There is no minimum number of students on a team.



# Organizing a Team

- If more than 15 students want to be on the team, many schools hold a mini-Olympiad to determine team members.
- Various subgroups of these 15 team members then compete in individual events. Most events allow two students although some allow three.
- Although the event may allow for two students to participate, it is permissible to send only one.
- You do not need to compete in all events.





# Preparing a Team

- You can't do it all yourself.
- Enlist the help of other teachers and parents.
- Have one person concentrate on the events in a particular subject area: chemistry, biology, technology, etc.
- Ideally one coach per event.



# KSO Website Calendar

← → ↺ 🏠

🔒 <https://sites.google.com/view/ksscioly/news?authuser=0> ... 📧 ⭐ 🔍 Search

📄 📖 📅 📌

**KSO Home** Home **News** About ▾ Tournaments Events KSO Login 🔍

2018-2019 KSO Calendar

**Kansas Science Olympiad**

Today ◀ ▶ Tuesday, October 16 ▾ Week Month **Agenda** ▾

- Saturday, October 20**
  - 9:00am KSO Coaches Workshop
- Friday, November 2**
  - KSO Priority Registration Deadline
- Friday, November 16**
  - KSO Regional Assignments
- Friday, December 7**
  - Final KSO Registration Due
- Tuesday, February 5, 2019**
  - Salina Regional - Division B
- Thursday, February 7, 2019**
  - Salina Regional - Division C
- Wednesday, February 13, 2019**
  - Hays Regional - Division B
- Friday, February 15, 2019**
  - Hays Regional - Division C
- Saturday, February 23, 2019**
  - NE KS Regional - Divisions B & C
  - Wichita Regional - Divisions B & C
- Saturday, April 6, 2019**
  - State Science Olympiad Tournament

Showing events until 4/15. [Link to more](#)

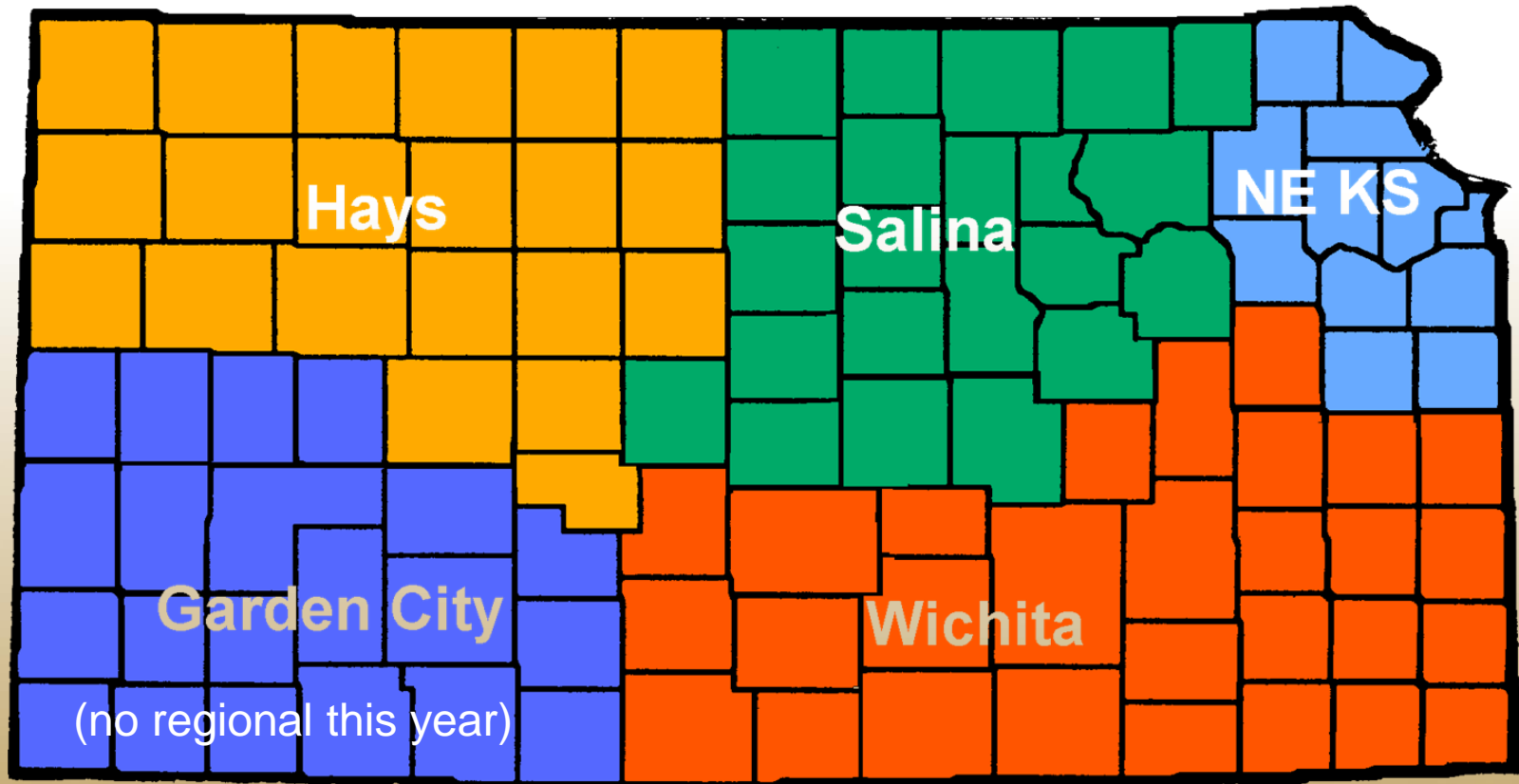
📅 Google Calendar

Google Calendar Link:

<https://calendar.google.com/calendar/b/1?cid=bjNrOGVrbmpsajE4aWo4b3I0MHFsZDI0bG9AZ3JvdXAuY2FsZW5kYXIuZ29vZ2xlLmNvbQ>



# 2018 KSO Regional Information





# State Invitations

- Top two teams from each Regional (guaranteed)
- Additional invitations based on number of teams that compete in regional



# State Invitations - 2018

Regional	Division B	Division C
Garden City	- / -	- / -
Hays	5 / 10	6 / 11
Northeast KS	13 / 24	13 / 22
Salina	4 / 7	6 / 11
Wichita	8 / 14	5 / 9
Total	30 / 55	30 / 53



# State Invitations for Regional Winners

Issue invitations to 1<sup>st</sup> place regional finishers if their team does not qualify for the state tournament

- Win medal if one of the top three places in what would be their school's division
- Does not affect other medals awarded
- Does not affect team point totals
- Adds a handful of students to the tournament





# Division Schedule

## 2008 Kansas Science Olympiad Schedule – Division B

Event	Room	Impound	9:00 - 9:50	10:00 - 10:50	11:00 - 11:50	12:00 - 12:50	1:00 - 1:50	2:00 - 2:50	3:00 - 3:50
Amphibians and Reptiles	304 Hubbard								
Anatomy	339 Hubbard								
Balloon Launch Glider	Haskell Gym								
Bio Process Lab	532 Hubbard								
Crave the Wave									
Disease Detectives	209 Hubbard								
Ecology	211 Hubbard								
Food Science	111 McKinley								
Meteorology	224 McKinley								
Metric Mastery	307 Hubbard								
Mystery Architecture	412 Hubbard								
Oceanography	104 Geology								
Reach for the Stars	127 Jabara								
Road Scholar	215 RSC								
Robo-Cross	223 RSC	7:45-8:30							
Rocks and Minerals	105 Geology								
Science Crime Busters	202 McKinley								
Science Word	007 RSC								
Scrambler	Ballroom	7:45-8:30							
Simple Machines	021 Jabara								
Tower Building	223 RSC	7:45-8:30							
Trajectory	RSC Ballroom	7:45-8:30							
Write It, Do It	305 RSC								



# State Tournament Scoring

Place	Score
1 <sup>st</sup>	1 pts.
2 <sup>nd</sup>	2 pts.
3 <sup>rd</sup>	3 pts.
...	...
No participation	31 pts.
Disqualified	32 pts.

# Awards

- Large school and small school divisions
  - High school – 800 students
  - Middle School – 500 students
- Medals in each event
- Team trophies
- Invitation to the National Tournament





# **General Event Rules**



# General Event Rules

- Teams may not interpret the rules so that they have an unfair advantage over the rules or another team.
- Once teams have entered the event area to compete, they may not
  - leave until they are finished
  - nor return once they have left
  - nor communicate with outside resources, including people, places, etc., by any means



# General Event Rules

- Unless otherwise stated, it is generally understood that if notes, resources, calculators, actions, etc., are not excluded, then they are permitted unless they violate the spirit of the event.
  - This effectively excludes the use of any computer, tablet, calculators, wireless devices, phones, etc., that have access to external communication or data retrieval during an event unless specifically permitted.



# General Event Rules

- Safety is of the utmost importance. Event supervisors are obligated to prevent unsafe acts and devices.
- Safety decisions are not subject to appeal as long as they are applied equally to all teams.
- Contestants may not bring or use
  - flammable liquids or flame sources of any type, such as matches, cigarette lighters, alcohol and acetone
  - nor bring or use acids/bases of any concentration except for lemon juice, vinegar and other mildly acidic/alkaline naturally occurring substances.



# General Event Rules

- One or more of the 15 current team members must have constructed all pre-built devices presented for judging. Any of the current team members may impound/demonstrate/operate the device at the competition unless stated otherwise in the rules.
- Any team member designated by the coach can impound devices unless stated otherwise in the rules.
- Once a device is removed from the competition area appeals will not be considered.



# Mentoring

- Adults may act as facilitators in the building process
  - by asking questions
  - offering ideas or suggestions
  - provide references.
- Adults may teach
  - underlying principles and skills
  - use of tools and adherence to safety rules
  - perform restricted tasks (such as drilling a hole in a metal plate or operating a power saw)



# Mentoring

- Adults may not
  - Construct or assemble any component of the project
  - Interfere with, alter, build or compromise the student or group design

**The students must prepare the entire structure, including accompanying charts, graphs or notes.**



# Mentoring

- Students may be extensively questioned on device's:
  - overall design and construction
  - component parts and how they operate and function within the device
- Each team coach will be required to certify that all work presented for the tournament complies with the Building and the Use of Tools Recommendations
- If the above items cannot be met, the team will be disqualified



# Eye Protection

If eye protection is required rules will indicate the category needed: A, B, or C

[https://www.soinc.org/eye\\_protection](https://www.soinc.org/eye_protection)



# Eye Protection - Category A

- Description
  - Non-impact protection
  - Provide basic particle protection only
- Corresponding ANSI designation / Required marking: **Z87**
- Examples
  - Safety glasses
  - Safety spectacles with side shields
  - Particle protection goggles
    - Seal tightly to face
    - Direct vents around sides (holes that can be seen through in a straight line)

# Eye Protection - Category A



**Safety Spectacles**



**Safety Spectacles  
with side shields**



**Particle Protection  
Goggles**

# Eye Protection - Category B

- Description
  - Impact protection
  - Provides protection from high velocity or high mass particles
- Corresponding ANSI designation / Required marking: **Z87+**



**High Impact Safety Goggles (Z87+)**

# Eye Protection - Category C

- Description Non-impact protection
  - Indirect vent / chemical splash protection
  - Seals tightly to face completely around eyes
  - Indirect vents (no direct path through hole)
- Corresponding ANSI designation / Required marking:  
**Z87 or Z87 D3** (the D3 designation is not required)



**Indirect Chemical Splash Goggles**



# Eye Protection

- Goggles marked with **Z87+** with indirect vent chemical / splash protection qualifies for all three categories
- VisorGogs
  - Do not seal tightly to face
  - Qualifies as indirect vent / chemical splash protection





# Eye Protection

- Contestants are responsible for providing their own protective eyewear.
- Teams **WILL NOT** be allowed to compete without adequate eye protection. This is **NON-NEGOTIABLE.**



# Eye Protection Suggestion

- Suggest that coaches purchase a dozen High Impact Chemical / Splash Goggles (**Z87+ D3**).
- Enough for the whole team.
- Should prevent students showing up for an event with inadequate eye protection for that event.



**General Event Rules/Tips and  
Eye Protection  
can be found on the  
KSO or NSO websites:**

**<https://sites.google.com/view/ksscioly/about>  
[www.soinc.org](http://www.soinc.org)**



# Comments from Students

“It tells me that science is truly amazing and exciting. It helped me understand science to a deeper extent and helped my problem solving skills increase. It gave me more knowledge about science and what science as a whole was.”

“Participating in the Kansas Science Olympiad has really expanded my view of science. Before Science Olympiad, I had few thoughts about science. All I saw was that science was just another class in a school day, nothing out of the ordinary. Now, I see that there are so many aspects of science that I was wrong about. Science really IS different from other classes. It involves knowledge, practice, hands-on, and technical all in one amazing subject.”



# Comments from Coaches

“They learn critical thinking skills, and about areas of science they wouldn't normally see in the classroom. In many cases they develop a love for science and end up pursuing it as a career.”

“It provides a non-athletic after school opportunity. My students are very self-driven and excited to be on the team, so they work very hard to learn each event. These events reinforce/cover science concepts that are definitely not covered deeply in the 'regular' science classroom.”



# KSO State Official

State Director:

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Thank you for attending

If you ever have any questions,  
please contact me!

The regular coaches workshop  
will begin at 10:10 a.m.