

Welcome to Winchester's Science Olympiad Team!



Dear 3rd, 4th or 5th Grade Parent or Guardian,

WHAT IS THE WINCHESTER SCIENCE OLYMPIAD TEAM?

Science Olympiad is an enhancement to the math and science curriculum taught here at Winchester. It is open to 3rd – 5th students and gives them the opportunity to explore the various science based topics listed below with a group of other interested students. We need the support of interested parents & students to make this wonderful program work. The program is run by volunteers who coach each Science Olympiad event. Your student may join as many events/topics as they would like for a one-time supply fee of \$35.

“AFTER SCHOOL SCIENCE CLUB” PARTICIPATION

Students can choose to participate on the team by simply registering and coming to practices to learn about the topics as they might in an “After School Science Club”, simply for the experience of participating in a hands-on, trial-and-error type of science learning environment. They are welcome to join an event practice, because students with narrower interests often provide a specialized focus, and expertise. If this type of participation is what your student is interested in, please sign up for whatever events interests him/her, and have fun learning.

Typically each topic or event listed meets once a week, starting sometime in mid-January or early February. In mid-to-late March, meetings are generally shifted to tournament preparation with those students attending the tournament. Coaches for each event will determine the location and time of the meetings.

“TOURNAMENT READY” PARTICIPATION

Your student may want to gear their participation toward becoming “Tournament Ready” to possibly be selected to represent Winchester at the Practice Tournament (usually in March) and at the April 13 Wayne Oakland Science Olympiad Tournament. At the tournament, all event challenges are completed by 2 or 3 students working together. For 16 events we have 33 participant slots that we have to fill which means many of the students must compete in 2 or 3 events. The students' events must be diverse – they cannot choose just the popular events (all building events) and still expect to make the team. If they would like the best chance of being selected for the tournament, they should choose at least one knowledge-based event, one with books to read and a test to take, or applied-knowledge event, something where they are asked to figure out a task based on a skill they have learned. Winchester is able to send two teams (a total of up to 32 students) to the April 13 tournament.

If you would like to coach, please let Lydia Gold (Lydia_Gold@att.net or 248-910-6587) know what event you would like to coach. Your child would automatically be on the tournament team.

If you do volunteer to be a coach, you will be asked to commit to a practice schedule for your event. This could be during lunch at school, before or after school in a room at school, or on evenings or the weekends at your home. You schedule the time that you are available, and then the interested students pick the events they would like to attend. The schedule is made based on your availability, not the students' availability. If a student can't make an event we will not ask you to reschedule. You would meet with the students interested in your event once every week or 2 weeks, starting sometime in mid-to-late January and ending before the Tournament on Saturday, April 13.

Your student will have fun learning, but because the commitment is greater your student may do additional work at home, including reading, studying, research and/or practice building and attend weekly meetings until the April 13 tournament. Winchester can send two teams of 16 students, so not all students may be selected for the tournament teams. Selection is based on a number of factors including knowledge/skill in the event, teamwork, attendance, and parent participation as a coach.

Coach training will be available in January through Wayne-Oakland Science Olympiad. Details about the training will be shared as available.

If there are no coaches available for the event(s) your student is interested in we will return your supply fee.

QUESTIONS? Contact Lydia Gold at Lydia_Gold@att.net or call 248-910-6587.

2019 SCIENCE OLYMPIAD EVENT DESCRIPTIONS

To view detailed event rules, go to <http://wayneoaklandsso.weebly.com/>.

BUILDING EVENTS

Crash Car Eggspert - Each team will build a structure on top of a PineCar Racer. The structure will be designed to hold and protect an egg as the car is rolled down a progressively steeper series of ramps and crashed into an immovable barrier.

Mystery Architecture - Students will be given a mystery bag of materials to build a freestanding tower that will support the weight of a tennis ball.

Precision Ping Pong Propulsion - Students will design and construct a device capable of launching a ping pong ball at a three-dimensional target which is placed within a given range.

Water Rockets - Prior to the tournament, each team will use 2-liter soda/pop bottles to build one or more rockets propelled by pressurized air and water. Rockets will be launched at the tournament and time aloft recorded. The rocket that stays aloft for the longest time will win.

APPLIED KNOWLEDGE EVENTS

Charged Up - Students will be tested on their knowledge of electricity and related concepts. The exam will cover circuits, conductors, diodes, voltage, current, resistance, schematic drawings, meter reading, electrical sources and safety.

Crime Busters – To determine who committed a crime, students will analyze clues that may include testing of unknown powders, paper chromatography to identify ink, matching shoeprints or tire tracks.

Grasp-A-Graph - Students will interpret and organize information using pictographs, pie, bar, double bar, line and double line graphs.

Reflection Relay - A team of three students will work cooperatively to determine the path a light beam takes, as it reflects off a series of plane mirrors.

Simple Machines - Participants will identify, use, and answer questions about simple machines and recognize the relationships between work, force and distance as they apply to each simple machine (lever, inclined plane, pulley, screw, wheel and axle, wedge).

Source Code – Python - This event combines computer science and mathematics to solve problems. The objective is to answer related to computer concepts, logic and mathematical problem solving using computers.

KNOWLEDGE EVENTS

A is for Anatomy - Students identify anatomical structures of the nervous, cardiovascular, and respiratory systems.

Amazing Arthropods – Students will demonstrate an understanding of key concepts in taxonomy, ecology, life history and the economic impacts of the major terrestrial arthropod groups.

Rock Hound - Students will prepare charts and use them to identify various rocks and minerals. Questions about the rocks or minerals, such as their color, specific gravity, relative hardness, reaction to 3 molar hydrochloric acid, shape, and texture will be asked.

Starry, Starry Night - This event will test students' knowledge of astronomical facts and concepts relating to the earth, moon, solar system, celestial sphere, stars, constellations, galaxies and nebulae.

Weather or Not - Students will be tested on their knowledge of weather and meteorology. Topics may include clouds, simple scientific weather instruments and their functions, weather patterns, severe weather, and weather photographs, drawings, or diagrams, states of water, water cycle, weather terminology, atmosphere and seasonal changes in weather.

Wildlife Safari - In this event, students will demonstrate their ability to identify wildlife and their habitats through the use of field guides. **In 2019, students will demonstrate their ability to identify reptiles and amphibians.**

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Dear 3rd, 4th or 5th Grade Parent/Guardian,
 If your student would like to join the Winchester Science Olympiad Team, simply check the box in front of the event(s) below he/she would like to participate in and **return this completed form with your payment to the Winchester office by Friday, January 11, 2019.**

Your student may join as many events as he/she would like for a one-time supply fee of \$35.00.

Please enclose cash or check (to "Winchester Elementary") in the amount of \$35.00 per student.

Check To Join	Team Name	Type Of Event	Notes: Coach is listed if available, Note if you are interested in Coaching this Team or if your Student is interested in being on the Tournament Team
	A is for Anatomy	Knowledge	
	Amazing Arthropods	Knowledge	
	Charged Up	Applied Knowledge	
	Crash Car Eggspert	Building	Coach: Jeremy Gold, jscgold@hotmail.com
	Crime Busters	Applied Knowledge	
	Grasp A Graph	Knowledge	
	Mystery Architecture	Building	
	Precision Ping Pong Propulsion	Building	
	Reflection Relay	Applied Knowledge	
	Rock Hound	Knowledge	
	Simple Machines	Building	
	Source Code	Applied Knowledge	
	Starry, Starry Night	Knowledge	
	Water Rockets	Building	
	Weather or Not	Knowledge	
	Wildlife Safari	Knowledge	

Please print clearly so that we can contact you and provide you & your student with the most up-to-date information.

Student's Name _____ **T Shirt Size** _____

Grade _____ **Teacher** _____

Parent's/Guardian's Name _____

Cell Phone (In case of an emergency.) _____ **Home Phone** _____

Email (Coaches will send updates by email.) _____

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