



Exploring the World of Science

Fulton Science Academy
2019-2020 Science Olympiad Team
Application and Event Interest Form

Student Name: _____ Grade: 9 10 11 12 (*circle*)

Homeroom Teacher: _____

Student E-Mail Address: _____

Tell Us About Yourself -- (*To be completed by the Student!*)

1. Why do you want to join the Science Olympiad team?

2. Do you have any experience with Science Olympiad? What events?

3. What high school science courses have you taken/are currently taking?

4. What is your current math course?

5. Anything else we should know about your background or interests?

5. Please rank the **five** Science Olympiad events that interest you most. Short event descriptions are listed on the last page.

_____ Anatomy	_____ Astronomy	_____ Circuit Lab	_____ Boomilever	_____ Code Busters
_____ Designer Genes	_____ Dynamic Planet	_____ Machines	_____ Detector Building	_____ Experimental Design
_____ Disease Detectives	_____ Fossils	_____ Sounds of Music	_____ Gravity Vehicle	_____ Ping Pong Parachute
_____ Ornithology	_____ Geologic Mapping	_____ Chem Lab	_____ Wright Stuff	_____ Write It, Do It
_____ Water Quality	_____ Protein Modeling	_____ Forensics		

Time Commitment, Availability, and Scheduling

(To be completed by the student and Parent!)

What other **school** and **non-school** activities do you participate in (e.g., sports, music, scouts, etc.)

Are you available for classes, team meetings, field trips, and tournaments on Saturdays? _____

Several event coaches hold their classes after school from 4:00 to 5:00 PM. List any weekdays when you would not be available at these times: _____

Parent Information:

(To be completed by the Student and Parent)

May we publish your e-mail address and phone numbers on a team roster? _____

Successful Science Olympiad teams have a lot of parent support. There are numerous opportunities for parents to help their child's team and parents are strongly encouraged to help out in as many ways as possible. **Please indicate the ways in which you can support our team:**

- _____ Mentor students for an event (e.g., be available occasionally to meet with students to answer questions.) Event(s) you can help with: _____
- _____ Drive students to a field trip or tournament
- _____ Fund Raising (organize a hat day, pizza lunch, ice cream day, etc.)
- _____ Design and order team shirts
- _____ Snack organizers for practices and competitions
- _____ Arrange guest speakers and/or field trips
- _____ Other: _____

Dues

Dues for Science Olympiad are \$150 per student. This includes your team shirt. Dues for students selected for the Science Olympiad Team will be billed through Smart Tuition. **Travel and tournament expenses are not covered by these dues.**

Additional Considerations:

Some things parents and students should consider when deciding whether to participate in Science Olympiad:

1. Science Olympiad requires a lot of dedication. Team members are required to study a minimum of 4 academic events. Students are expected to work on their events outside of Science Olympiad classes. You must study your events independently to succeed in Science Olympiad.
2. According to Science Olympiad rules, each team can have a maximum of fifteen students. In some tournaments we may enter more than one team. Only one team can compete in the State Tournament.
3. Every effort is made to match students with events that interest them. Tournament scheduling constraints and conflicts sometimes prevent students from competing in a favorite event. In all cases, competition schedules are designed to maximize team performance.

Competition Dates:

Check the dates below and mark your calendars. **PLEASE MAKE SURE YOU ARE AVAILABLE ON THESE COMPETITION DATES.**

October 12, 2019	South Forsyth Invitational – up to 2 teams
October 26, 2019	UGA Invitational – 1 or 2 teams
December 14, 2019	Grovetown High School Invitational – up to 2 teams
January TBA, 2020	Brookwood Invitational or other out of state tournament – up to 2 teams
February TBA, 2020	Regional Tournament – 2 teams
March TBA, 2020	HS State Tournament – Emory University, 1 team
May 15-16, 2019	National Tournament – NC State University, Raleigh, NC

Terms and Conditions:

1. Science Olympiad Team decisions are made by the SO Committee that consists of Science teachers, school administrators, and other FSA personnel. Event coaches will provide feedback on individual student performance but there will be no parents involved in final decision-making process.
2. Students' Science and Math grades and standardized test scores as well as disciplinary records may be reviewed during the team selection process.
3. Team success is the priority over individual success.
4. Previous experience in Science Olympiad does not guarantee placement on the team. The number of qualified applicants, coaches, room restrictions, and official Science Olympiad rules will determine the size of the team.
5. Although some students are permitted to participate in other activities and Academic Teams, priority must be given to Science Olympiad if accepted. After school activities including clubs, sports competitions, Scouts and such cannot replace Science Olympiad weekday or weekend activities.
6. All school rules are in effect for all Science Olympiad activities whether on or off campus. Students must respect our equipment and clean up after themselves. Disrespect of teammates, coaches, and/or property will not be tolerated. Be considerate of event mentors – they are volunteering their time. Students can be removed from the team for poor behavior!
7. Please consider the above competition dates when scheduling ACT or SAT tests.

I have read, understand, and agree to the above conditions.

Student Signature: _____

Date: _____

Parent Signature: _____

Date: _____

Questions?

Contact Mrs. Stathos (gstathos@fultonscienceacademy.org), Mrs. Walsh (pwalsh@fultonscienceacademy.org) or Ms. Oliver (joliver@fultonscienceacademy.org)

Return completed forms to Ms. Oliver in the Chem Lab *no later than Wednesday, August 7 at 4:00 PM*

Science Olympiad 2019-2020 Event Descriptions

Life, Personal, & Social Science

Anatomy & Physiology – Understand the anatomy of the human body systems: skeletal, muscular, and integumentary systems.

Disease Detectives – This event requires students to apply principles of epidemiology. Students will use investigative skills in the scientific study of disease, injury, health and disability in populations or groups of people.

Ornithology – This event will test student knowledge of birds.

Designer Genes -- Participants will solve problems and analyze data or diagrams using their knowledge of the basic principles of genetics, molecular genetics, and biotechnology.

Water Quality – Participants will be assessed on their understanding and evaluation of marine and estuary environments.

Earth and Space Science

Astronomy – Students will demonstrate an understanding and basic knowledge of the properties and evolution of stars and galaxies.

Dynamic Planet – Students will use process skills to complete tasks related to oceanography.

Fossils – Teams demonstrate their knowledge of ancient life by completing selected tasks at a series of stations including but not limited to fossil identification, answering questions about classification, habitat, ecologic relationships, behaviors, environmental adaptations and the use of fossils to date and correlate rock units.

Geologic Mapping – Students will demonstrate an understanding in the construction and use of topographic maps, geologic maps, and cross sections, and their use in forming interpretations regarding subsurface structures and past depositional environments.

Physical Science & Chemistry

Circuit Lab – Participants must complete tasks and answer questions about electricity and magnetism.

Machines – Teams will complete a written test on simple and compound machine concepts and construct a lever-based measuring device to determine the ratio between two masses.

Sounds of Music – Teams must construct and tune one device prior to the tournament based on a two-octave 12-tone equal tempered scale and complete a written test on the physics of sound and music concepts.

Chem Lab – Teams will complete one or more tasks and answer a series of questions involving the science processes of chemistry focused in the areas of Aqueous Solutions and Acids & Bases.

Forensics – Given a scenario, a collection of evidence, and possible suspects, students will perform a series of tests that along with other evidence will be used to solve a crime.

Protein Modeling – Students will use computer visualization and online resources to construct a physical model of a protein that is being used with CRISPR Cas9 to edit plant and animal genomes. t

Technology and Engineering

Boomilever– Teams will design and build a Boomilever meeting requirements specified in the rules supporting a minimum load and to achieve the highest structural efficiency.

Detector Building – Teams will build a durable temperature sensing device that will accurately measure and display temperatures between 0°C to 75°C to determine the temperature of four different water samples.

Gravity Vehicle – Prior to the competition, teams will design, build, and test one vehicle and ramp that uses the vehicles gravitational potential energy as its sole means of propulsion to reach a target as quickly and accurately as possible.

Wright Stuff – Teams will design, construct, and test free flight rubber-powered monoplanes or biplanes to achieve maximum time aloft.

Inquiry & Nature of Science

Code Busters – Teams will cryptanalyze, decode, and encode messages using cryptanalysis techniques for historical and modern advanced ciphers.

Experimental Design – This event will determine a participant's ability to design, conduct and report the findings of an experiment conducted entirely on site.

Ping Pong Parachute – Prior to the competition, students will use a 1 liter carbonated beverage bottle to launch a ping pong ball attached to a parachute. The longest flight time wins.

Write It Do It – One student will write a description of an object and how to build it, and then the other student will attempt to construct the object from this description.