



Florida Science Olympiad List of Events

If you would like to sponsor an event, check the list and descriptions listed below. A division B school is for middle school teams, a division C school is for high school. Some are events for both middle and high schools, such as Bottle Rockets. For more information go to www.floridascienceolympiad.org

Notes: If it states:

- **Create Activity** – you will create the laboratory activity or write up the questions with an answer key that the students will complete during the event. These are written according to the rules. If you need materials, please contact us and we can arrange to have materials provided, but you will need to organize and setup your event site.
- **We have materials** – we have all the testing equipment and will provide them on the day of the competition. You will be responsible for setup of the event site.
- **Need to build** – this is a new event. You will need to build the test equipment/site. We will reimburse the material costs. Please save receipts.
- **Division B only** – you will write/design the activity for middle school students only
- **Division C only** – you will write/design the activity for high school students only
- **Division B/C** – you will write the activity for middle and high school students. Can either do two separate activities, or tier it so that one part is for middle school, and a second part is added to make it longer for high school students. Contact us for assistance on designing your event.

KEEP IT AS HANDS ON AND ACTIVE AS POSSIBLE!

If you need materials for any event, please contact us. We have a large number of supplies available to borrow for the event!

Event	Division	Judge Preparations	Description
1. A for Anatomy	(B)	Create Activity	Teams will be tested on their knowledge of anatomy and health concepts.
2. Amphibians and Reptiles	(B/C)	Create Activity	Teams will be assessed on their knowledge of amphibians and reptiles, including interaction with ecosystem and reproduction.
3. Astronomy	(C)	Create Activity	Teams identify deep sky objects and solve astronomy problems.
4. Balloon Launched Glider	(B)	We have materials	Participants will design, construct and test a glider that will remain aloft for a maximum period of time.
5. Boomilever	(C)	We have materials	Teams will design, build & test the lightest boomilever to carry a maximum load.
6. Cell Biology	(C)	Create Activity	Teams will utilize basic laboratory skills to solve problems involving cell biology and identification of cellular structures.
7. Chemistry Lab	(C)	Create Activity	Teams will demonstrate chemistry laboratory skills related to selected topics.
8. Circuit Lab	(C)	Create Activity	Students will compete in activities involving knowledge of direct current electrical circuits.
9. Crave the Wave	(B)	Create Activity	Teams will demonstrate knowledge of waves and the application of wave concepts in a wide variety of sciences.

10. Disease Detective	(B/C)	Create Activity	This event requires students to apply principles of epidemiology to a published report of a real-life health situation or problem.
11. Ecology	(B/C)	Create Activity	Students will answer questions involving content knowledge and process skills in the area of ecology and adaptation by examining different ecosystems.
12. Electric Buggy	(C)	We have materials	Teams will construct a vehicle powered only with the energy from a battery.
13. Experimental Design	(C)	Create Activity	Given a set of unknown objects, teams will design, conduct, analyze and write-up an experiment.
14. Five Star Science	(C)	Create Activity	Teams will compete in an academic pentathlon to demonstrate their overall understanding of five major science content areas.
15. Food Science	(B/C)	Create Activity	Teams will be asked questions pertaining to food chemistry, which may include chemical reactions, characterization, and quantification
16. Forensics	(C)	Create Activity	Students will identify polymers, solids, fibers, and other materials in a crime scenario.
17. Health Science	(C)	Create Activity	Teams will be tested on their knowledge of health concepts.
18. Meteorology	(B)	Create Activity	This event involves the use of process skills as applied to meteorology.
19. Metric Mastery	(B)	Create Activity	Students will demonstrate an intuitive feeling for estimating and later for measuring different events/objects using S.I. metric units.
20. Mystery Architecture	(B)	Create Activity	Teams will construct a structure on site with no future indication of materials or task.
21. Oceanography	(B/C)	Create Activity	Teams will work at stations that display a variety of earth science materials and related earth science questions.
22. Physics Lab	(C)	Create Activity	Teams will demonstrate physics laboratory skills related to selected topics.
23. Practical Probes	(C)	Create Activity	Students will use digital and analog probes to collect data and draw conclusions.
24. Reach for the Stars	(B)	Create Activity	This event will address the Sun, planets and their satellites, comets, asteroids, the Oort Cloud, the Kuiper Belt, meteoroids, meteorites, and meteors
25. Remote Sensing	(C)	Create Activity	Teams use maps and remote sensing technology to explain human land use patterns and the relationship of a region's physical environment to the cultural landscape.
26. Road Scholar	(B)	Create Activity	Requires the accurate interpretation and understanding of various map features using a variety of road and topographic maps.
27. Robo-Cross	(B)	Need to build, but will reimburse	Students will design and build a robot capable of performing certain tasks.
28. Robot Ramble	(C)	Need to build but will reimburse	Students will design and build a robot capable of performing certain tasks.

29. Rocks and Minerals	(B/C)	Create Activity	Students will identify, describe, and classify various specimens.
30. Science Crime Busters	(B)	Create Activity	Teams will identify the perpetrators of a crime or crimes by using paper chromatography and analysis of unknown solids, liquids, and plastics found at the scene of a crime.
31. Science Process Skills	(B)	Create Activity	Teams will use basic laboratory skills to solve problems from all disciplines of science.
32. Science Word	(B)	Create Activity	Teams will take turns using a set of scientific terms or concepts while the other team member guesses the terms.
33. Scrambler	(C)	We have materials	Teams will design and build a mechanical device which uses the energy from a falling mass to transport a Grade A uncooked chicken egg along a straight track
34. Simple Machines	(B)	Create Activity	Teams will demonstrate physics laboratory skills related to simple machines.
35. Sounds of Music	(C)	We have materials	Teams will build musical instruments, describe the scientific principles behind their operation and perform a musical selection on them.
36. Tower Building	(B)	We have materials	Teams will design, build & test the lightest tower to carry a maximum load.
37. Trajectory	(B)	We have materials	Teams will design, construct, calibrate and operate a device capable of launching a projectile far and accurately using only elastic energy.
38. Wright Stuff	(C)	We have materials	Teams will design and build a propeller propelled aerodynamic device for greatest time aloft.
39. Write It/Do It	(B/C)	Create Activity	A technical writing exercise where students write a description of a contraption and other students will attempt to recreate it using only the written description.