Science Olympiad – 2018 Event Logistics Chart
This table is to be considered suggestive of things to keep in mind; site specific situations will need variations

EVENT NAME (Bold are new for 2018)	DIV	IMPOUND	ROOM TYPE	EST. HRS. PREP TIME (incl. setup)	MINIMUM SUGGESTED SUPPLIES	HELPERS	COMMENTS
Anatomy & Physiology	B/C	No	Biology lab/room with flat tables	8-12	Microscopes and slides; models, pictures of organs or diseased person. FOR ALL BIO EVENTS SEE SUPERVISOR TIPS on soinc.org	1-2	This event is ideally done at stations; overheads and internet pictures may be used in a pinch. If using probeware, be sure to include directions for the participants on how to use the device. At least one station should include some actual data in graph or table form.
Astronomy	C	No	Large classroom with projection capabilities; large flat surfaces	8-12	Web/LCD projection capabilities, large projection screen; many different astronomy images	1-2	This event is ideally done as group test with images projected for all to see. There should be more than 1 question for every image.
Battery Buggy	B	Yes	Wide, flat hallway, gym, or other open indoor space; space for impound at all tournaments	2-4	Photogate timing system if possible; Tape to mark course; measuring tapes, stop watches; large mass balance; if not using a photogate system, have 2 lasers set up at the timing lines for ease of the timers to see when the dowel passes the timing lines.	2-4	This event is best run in a big space where the impound area and participants can be kept separated from spectators. Rope, or some other queuing device, should be used to designate where spectators are allowed off the area to keep spectators away. If you have a large number of teams competing consider setting up additional but identical courses. **To be successful a smooth surface is paramount. Avoid tile floors with seams.** Notify teams adhead of the tournamnet, via email or a tournament website, the type of surface (e.g., vinyl, wood, concrete) that will be used. **Also, emphasize with coaches in ample time before the competition that manufacturer voltage must be clearly marked.** Do not tell target distance until all devices impounded.
Chemistry Lab	C	No	Chemistry Lab	10-15	Appropriate chemicals for all; various types of glassware; proper disposal containers. FOR ALL CHEM EVENTS SEE SUPERVISOR TIPS on soinc.org	1-2	This event involves students completing a series of hands-on activities that you prepare. This means that you will need many sets of reagents, ideally one for each team. Make sure to set aside enough time to prepare all the reagients and set-up the lab. If probeware is used be sure to include directions for the participants on how to use the device. At all times, the participants and supervisors need to use proper safety equipment Participants will bring the proper safety equipment and up to 5 double-sided note sheets.
Crime Busters	B	No	Chemistry Lab	10-20	Appropriate Chemistry lab supplies: Iodine reagent (Iodine dissolved in KI solution), 1M HCl, a waste container, thermometers, balances, reagents, usually at each station; chromatography supplies, pens; shoe prints. Hair, fabric and candles, plastics and density determining supplies. Distilled or ROI water for each team in wash bottle, unknowns. FOR ALL CHEM EVENTS SEE SUPERVISOR TIPS on soinc.org	2-4	You will need many sets of reagents & supplies; so a long prep time is associated with this event. There should be the same setup for each station and team. There are no heating tasks in this event. You should consider using many different pens with black ink rather than different colored pens; consider a scenario in which any or none could be the perp; same size shoe prints but worn differently creates a different scenario. Test template, recipes for reagents, and other helpful hints available. At all times, the participants and supervisors need to use proper safety equipment Participants will come with proper safety equipment
Disease Detectives	B/C	No	Classroom	10-15	1 copy of test/team, Answer sheet for quick grading	2-4	The test associated with this event can take a long time to grade so consider ssheduling this as the first event of the day; an alternative would be to recruit more volunteers than listed to serve as additional scorers. During the event some graphs may be projected, but it is not a good idea for students who may need to return to them often. Many more resources, help, and information can be found at the CDC website.
Dynamic Planet	B/C	No	Large room with flat tables	10-15	Enough copies of tests; actual maps/photos/images; rulers	1-2	Consider including High quality maps—satellite, topos, etc. May be projected on large screen; be sure to include scale with photos; always ask some questions about causes and predictions

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Ecology	B/C	No	Biology lab or large classroom	10-15	Enough copies of tests or questions at stations. Answer sheet for quick grading.	1-2	Better run as stations; pictures of some areas should be included; questions should include graphs and tables; Graphs, food webs, ecological pyramids, life patterns, sampling and population density, data from ecological studies are good sources of process skill activities. Use strictly vocabulary questions sparingly
Experimental Design	B/C	No	1-2 labs with tables	10-20	Many equal set ups, materials/problems can be anything; at minimum each station may need rulers or timers or beakers.	2-4	Long set up with one station per team; Long time to grade; should be scheduled as early event; be sure that each station has identical materials; requires good scoring rubric; problem can be anything, but try to give students some ideas such as "process X is influenced by 3 different factors a, b, c. Devise an experiment that shows effect of one of these. Vague instructions of the form "design and do an experiment"(with nothing else) should not be used.
Fast Facts	B	No	Large room with tables to accommodate teams and plenty of space to separate teams	10-15	Writing implements, 3 scoresheets for each team and one timer- see rules	4	Event supervisor will direct the event, a timer will time each round and 2 helpers are needed to score each round. When setting up the room make sure that teams are spaced apart susficiently to allow teams to talk without disturbing or cluing each other. You may consider uising a LCD projector and screen to show categories and event time.
Fermi Questions	C	No	Sign up. Large room or gym with FLAT tables or floor A large room with tables or desks to accommodate teams	2-4	Test questions, scoresheets and scrap paper for each team and one timer	3-5	Event supervisor will direct the event, a timer will help collect the tests and scoresheets and 1 helper may be to help score each round.
Forensics	C	No	Chemistry lab with gas connections in the hoods	10-15	Appropriate chem lab supplies: thermometers, cylinders, balances, reagents, usually at each station; chromatography supplies, pens; shoe prints, Iodine reagent (Iodine dissolved in KI solution), 2M HCl, 2M NaOH, Benedict's solution, (no more than 50 mL of each of the solutions) a hot water bath, a Bunsen burner or equivalent BTU heat source to perform flame tests a waste container, microscope, chromatography materials, unknowns, and a wash bottle with distilled water (no more than 250 mL). Hair, fabric and candles, plastics and density determining supplies. FOR ALL CHEM EVENTS SEE SUPERVISOR TIPS on soinc.org	2-4	Long prep; need many sets of reagents; better done with same setup for each station and team; consider using many different pens with black ink rather than different colored pens; consider a scenario in which any or none could be the prep; same size shoe prints but worn differently creates a different scenario. Test template, recipes for reagents, and other helpful hints available. **Be sure students come with proper safety equipment. Be sure the event supervisors and helpers have proper safety equipment.**
Game On	C	No	Computer room	10-15	Computers with the Scratch program (Available for download from http://scratch.mit.edu) to create an original computer game based on the assigned theme Projector and screen to display time remaining and instructions to competitors	2-3	Tournaments are encouraged to provide computer specifications and which Scratch version they will be running to the teams as early as possible. A broad theme to build their original computer game around. Scoring of the event will be done using the scoring rubric found on www.soinc.org.
Helicopters	C	No	Gym, racquetball court, or room with a tall ceiling	1-2	Balance, stop watches, rulers or gauge (a simple 20 cm diameter hole in foam board works better than a ruler) See rules.	1 supervisor, 2-3 timers per helicopter flying at same time	Try to keep HVAC off; no entry or exit during flight. Consider having long expandable pole to get helicopters if stuck on rafters; separate area for spectators, Flight performance benefits from taller ceilings, less floor space needed than for Wright Stuff, consider smooth ceilings.
Herpetology	B/C	No	Biology lab or large room with flat tables	10-15	Pictures or actual specimens May be done as Power point.	1-2	Better run as stations with pictures or specimens if allowed in your state; classroom will need large projection screen; when using pictures, be sure to include scale for size; be certain to include some questions on economic importance

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Hovercraft	B/C	Yes	a classroom with tables and tables to do written test - impound area	8-12	Impound: measuring stick, rulers, 1/4 inch dowel, volt meter, check sheet Hovercraft track, stop watches or times, photogates(see rules), 2 kg scale Written test for part 2	2-3	Sign up for time periods, recommend using photogates to time vehicles. Have the teams all work on the written test while you call them up 1 at a time to run their vehicles. 1 supervisors good on grading test and they other supervisor good at testing the vehicle. Surface finish of the surface effects operation of the hovercraft devices.
Material Science	C	No	Chemistry Lab	10-15	**Play Doh or silly putty, rulers, scales, or whatever equipment or reagents are needed for task chosen.** FOR ALL CHEM EVENTS SEE SUPERVISOR TIPS on soinc.org	2-3	Length of prep depends on the number of hands-on task that are done as part of the event. **There needs to be at least one hands-on task but more may be done.** Prep time can be reduced somewhat by setting up the event as rotatable stations so you need only one of each prep for each team.
Meteorology	B	No	Large classroom with table, possibly projection screen	10-15	Enough copies of exam for each team	1-2	Actual weather maps from NOAA, charts, etc. online are ideal; some images can be projected
Microbe Mission	B/C	No	Biology Lab or room with flat tables	8-12	Pictures/slides of microbes, microscopes, various problems, graphs	1-2	Best run as stations; be sure questions are age appropriate; try to include some measurements and calculation; If using probes, students may need directions of how to use
Mission Possible	C	Impound only at State & Nationals	Large room with many flat tables. Multiple tables for set up and testing of devices as well as Sign up	2-4	Timers, Stopwatches, Clipboards, Protective eye wear for judges, metric tape measure	3-5	Impound for State & Nationals. Consider a sign up schedule. Teams may come 30 minutes before test time to set up. Note: steps do not have to be in order, only specific start and end tasks per rules.
Mousetrap Vehicle	C	Yes	Wide, flat hallway or gym; area for impound at all tournaments	2-4	Photogate timing system if possible; if not using a photogate system, have 2 lasers set up at the timing lines for ease of the timers to see when the dowel passes the timing lines; tape to mark course; measuring tapes; stop watches; Several 16 oz. identical plastic cups	2-4	This event is best run in a big space where the impound area and participants can be kept separated from spectators. Rope, or some other queuing device, should be used to designate where spectators are allowed off the area to keep spectators away. If you have a large number of teams competing consider setting up additional but identical courses. Do not tell target distance until all devices impounded. To be successful a smooth surface is paramount. Avoid tile floors with seams. Notify teams adhead of the tournamnet, via email or a tournament website, the type of surface (e.g., vinyl, wood, concrete) that will be used. Also, emphasize with coaches in ample time before the competition that manufacturer voltage must be clearly marked. Do not tell target distance until all devices impounded.
Mystery Architecture	B	No	Large room with limited windows and tables/floor space for each team	2-4	Various low-cost building materials in bags for each team. Each bag should contain the same type of materials in the same amounts for the given problem (e.g., bridge, tower, a cantilever for State and National tournaments).	3-5	This event will require a lot of materials as each team will need the same material set-up. Please plan accordingly to have time to aquire the needed materials and prepare individual team kites. It is recommend that low-cost materials (i.e., craft sticks, pipe cleaners, straws, masking tape) be used. In order to maintain the mystery of the event, try to use a room without windows. If windows are present they should be covered.
Optics	B/C	No	Physics lab or any room with flat tables	10-12	Laser Shoot Setup (LSS) with lasers and mirrors , stopwatches, written tests for Parts 1, check sheet	3-5	Have the teams all work on the written test while you call them up 1 at a time for the LSS. 1 supervisors good on grading test and they other supervisor good at the laser shoot.
Potions & Poisons	B	No	Chem lab	10-20	At least one hand's-on activity required. Appropriate chem. lab supplies: a waste container, thermometers, balances, reagents, as appropriate, pictures of the current year's toxic organisms, Distilled or ROI water for each team in wash bottle, unknowns. FOR ALL CHEM EVENTS SEE SUPERVISOR TIPS on soinc.org	2-4	Long prep time; may need many sets of reagents; May be done with same setup for each station and team or as stations. Be sure students come with proper safety equipment. Be sure the event supervisors and helpers have proper safety equipment.

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Remote Sensing	C	No	Large classroom with flat tables - computer lab optional	10-15	Quality satalllite images or areal photographs	2-4	May be run as workstations or stations events. If a projector is used, allow equal time for each projection
Road Scholar	B	No	Large classroom with flat tables	10-15	Identical highway and topo map for all teams; topo symbol chart; identical questions for all teams; LARGE FLAT TABLES ARE ESSENTIAL	1-2	Consider laminating topo symbol charts; make sure all have same maps; try to ask a variety of different kinds of questions; do not photo copy the topo (obtain from USGS). May consider laminating topo and road maps also.
Rocks and Minerals	B/C	No	Lab or large room with flat tables	6-10	Many different kinds of rocks and minerals, actual specimens better than pictures	1-2	Stations with actual specimens; actual specimens are better than images; local mineral society or museums are often good sources of help
Roller Coaster	B	Yes	Gym or large room with floor space, may be carpeted; Impound at all tournaments	2-3	Several #2 unsharpend pencils with an unused eraser; Timers, Stopwatches, Clipboards, Protective eye wear for judges, metric tape measure	3-5	Impound for all tournaments; Consider a sign up schedule; Note: During the team's 8 minutes, they may do as many practice runs before and between their scorable runs.
Solar System	B	No	Large classroom with projection capabilities. Power point will often suffice	6-10	Possibly sky lab; Various images of the solar system and moons	1-2	Equal time for each projection, etc.; probably best to run all teams at same time. May use sections of maps
Thermodynamics	B/C	Yes	Large Lab with access to water and electricity. Also space will be needed for Impound.	10-15	Impound items: measuring stick or size gauge, hole size gauge, check sheet Part I - Device test items: Temperature probe, insulated hot water container 1+ gallon, water heater, measured water dispensing (Possibly large plastic syringes), towels, 2 stop watches. Part 2 - Written test	Impound 1 Event 2 -4	Event: should Teams prepare device, hot water is added to the device by the supervisor, teams close the device, supervisor measuers the temperature of the device after predetermined time. Teams take a written test whild the after device is setup. Precise timing is required for 20 to 30 devices in parallel.
Towers	B/C	No	Gym or room with tables	2-4	Test Apparatus (may need more than 1 depending on number of teams per session),Sandhopper system or equivalent (rule 4a),55cm x 32 cm minimum test base plate with 20x20 cm opening at center. sufficiently tall to suspend sand bucket,5 gallon plastic bucket with handle. If not using sand hopper, a small (pint to quart size) scoop/cup to transfer sand to bucket,a second bucket to hang under the tower to load the sand into,29 cm circle drawn on test base, Pair of bucket stabilizing sticks, 15.1 Kg Sand, Loading block assembly (loading block, eyebolt, wingnut), Chain, S hook (rule 4b), digital timer for 6 minute run time, another bucket or bag to hold excess sand to replenish competition sand if/when it spills, meter stick or other measuring tool/template for min tower height (Measure to 0.1 cm), Scale to mass the tower (accurate to 0.01 grams) (up to 50 or 100 grams), Scale to mass sand bucket/chain system (hold at least 15.2 Kg) accurate to at least .1 Kg Level, to make sure the test base plate is level, usual sand device, gram and kilogram balance; a firm 8cm inner diameter cirular ring gauge weighing less than 10g.	2-4	Consider doing as a sign up and/or with multiple testing. Need to use sand and **not** cat litter. Sand must be dry!
Wright Stuff	B	No	Gym, cafeteria, high "clean" ceiling, if possible, with no rafters	2-4	Balance-gram to 0.01g, stop watches, metric rulers-1 meter, 30 cm, timer; gauges to measure the specific dimensions	3-5	Try to keep hvac off; no entry or exit during flight. Consider having long expandable pole to get planes if stuck on rafters; separate area for spectators

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Write It Do It	B/C	No	2 adjacent large rooms with flat tables	12-20	Various identical supply bags: corks, beads, paper clips, index cards, stickers, toys (Lincoln Logs, Legos, K'Nex, blocks, etc.) Use your imagination.	2-4	Will need at least 1 model for every 4-5 teams. Make sure supply bags are uniform. Setting up bags and building structures requires much time; No spectators. Glass doors and windows to hallways should be covered. Develop good rubric for scoring.; 25-30 pieces should usually be maximum; do not make object too complicated for completion; experiment with different structures; office and craft stores are good source of supplies; long time to score so schedule early

TRY NOT TO SCHEDULE SAME TEAM AT SAME TIME FOR THESE EVENTS (may involve same students):

B EVENTS
Meteorology and Dynamic Planet
Write It Do It and Experimental Design
Crimebusters and Potions & Posions
Ecology, Herpetology, and Dynamic Planet

C EVENTS
Write It Do It and Experimental Design
Forensics, Chemistry Lab, Materials Science
Ecology, Herpetology, and Dynamic Planet
Dynamic Planet and Astronomy

SHOULD BE SCHEDULED EARLY IN THE DAY
Experimental Design
Disease Detectives
Write It Do It

Note: Disease Detectives, Experimental Design and WIDI are likely to use some of same kids. Try not schedule all at same time for one team. Disease Detectives can probably be a bit more flexible. But remember each of the above 3 events takes a long time to grade and must be scheduled early.

For More Information About Coaches and Supervisor Sets of Bulk Supplies for many events, see the official site for Science Olympiad-approved kits: Ward's Science -- https://www.wardsci.com/scienceolympiad Search for "Science Olympiad" for the latest products

For more information about obtaining probes, sensors, photogates, calculators and other tech, use the **Texas Instruments Educator Loan Program:** http://education.ti.com/educationportal/sites/US/nonProductMulti/support_borrowtitechnology.html