

2025-26

State Science & Engineering Fair of Florida RULES SUPPLEMENT

to the International Science & Engineering Fair Rules

https://ssefflorida.com/

It is the responsibility of the affiliated Regional Science & Engineering Fair Directors, Scientific Review Committees and Institutional Review Boards, students, and teachers to develop a complete knowledge and understanding of both the <u>ISEF</u> <u>Rules & Regulations</u> & the SSEF Rules Supplement.

- 1. SSEF has the right to make rules stricter than those stated by ISEF.
- 2. Review this SSEF Rules Supplement carefully so that you are aware of these additional requirements.
- 3. The Regional Fair Director MUST ensure that each person and committee involved in science research or intending to participate in an affiliated science fair receive copies of both *ISEF Rules & SSEF Rules Supplement* documents and follow ALL the rules outlined within them.
- 4. All of the RULES, REGULATIONS, and PROCEDURES of the *ISEF* are in effect at each affiliated regional science fair and at the *SSEF* of *Florida*.
- 5. Regional and local fairs may also adopt more restrictive rules.
- 6. Students must compete in the regional fair that serves the geographical region where they **attend school** (public, private, charter, homeschool). If a team project includes members from more than one region, the team must request permission to compete in ONE regional fair. It is recommended that students request this permission BEFORE experimentation or data collection begins.
- 7. Teachers/Adult Sponsors are to critically review all Research Plans **BEFORE** experimentation or data collection begins. If required by ISEF/SSEF rules, the Teacher/Adult Sponsor is also responsible for submitting the project to the appropriate SRC/IRB for additional review and approval **BEFORE** experimentation or data collection begins.

SSEF of Florida Scientific Review Committee

All Projects entering the SSEF of Florida will be reviewed and must be APPROVED by the SSEF of Florida Scientific Review Committee (SRC) before competition. In addition, all SSEF-affiliated fair directors and selected representatives are required to participate in the final review process.

Only SSEF APPROVED projects are eligible for competition in the SSEF of Florida.

Members of the Scientific Review Committee (SRC) for the State Science and Engineering Fair of Florida are available to assist students, teachers, and Fair directors with rules questions.

For ISEF or SSEF of Florida rules questions, students, teachers, and fair directors may contact the SSEF of Florida Scientific Review Committee. Please reference the ISEF/SSEF rule(s) for which you need clarification.

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Eligibility for SSEF of Florida (In addition to ISEF rules p. 3)

- 1. Students must be in good standing with the Society for Science and all its affiliated fairs and programs.
- 2. Each RSEF of Florida affiliated fair may send to SSEF of Florida the number of projects allocated.
- 3. A student must be selected by the regional fair affiliated with the SSEF of Florida.
- 4. A research project may be part of a larger study performed by professional scientists, but the project presented by the student must be only their OWN PORTION of the complete study.
- 5. As a reminder, ISEF eligibility requires the following:
 - a. Team projects must have no more than three members. Team membership may not change once competition begins.
 - b. A student may only enter one project per year, representing no more than 12 months of work, beginning no earlier than January 1 of the year preceding the SSEF of Florida.
 - c. Students must present the same project at both the regional and state fair. Be sure to adhere to ISEF rules pg 5, item 8 under Approval and Documentation.
 - d. A student may only compete in one regional fair.

Abstracts (In addition to ISEF rules p. 29)

- All abstracts for the 2026 SSEF MUST be on the approved 71st SSEF Abstract Form which is available at www.ssefflorida.com.
- 2. The official approved and stamped SSEF abstract received on-site at SSEF must be displayed vertically at the display. **No copies of the abstract may be distributed to judges or to the public.**

Research Plan (In addition to ISEF rules p. 32)

All projects must include a complete research plan. The research plan is a detailed step-by-step description of the student's involvement in procedures utilized during the research process, written prior to experimentation. It should be fully and clearly replicable by a reviewer. The research plan must not include data, conclusions, or unapproved procedures.

- 1. Projects submitted by the regional fair director without a complete research plan (as outlined below and in ISEF Rules, pg 32) will not be approved for competition. In these cases, resubmissions will not be permitted.
- 2. The Research Plan must include:
 - a. a materials list to include chemicals (with concentrations and quantities for any hazardous chemicals), apparatus, and organisms or participants involved;
 - b. procedures written as specific steps that include safety precautions, aseptic techniques and disposal methods (if applicable);
 - c. a clear distinction between procedures completed by the student versus procedures completed by an adult. Sample phrasing or formatting could include:
 - i. A section including "Role of Student" and "Role of Mentor"
 - ii. "Step performed by Qualified Scientist"
 - iii. "Student observed the following steps completed by the Direct Supervisor"
 - d. a clear explanation of the location where each phase or portion of the project was completed and who supervised the student. Sample phrasing or formatting could include:
 - i. "This step was performed at my school, while the following steps were performed at X institution."
 - ii. "Phase 1: Sample Preparation (Performed at X Institution)"
- 3. If the student makes a substantial addition, deletion, or clarification to the procedures described in the student's original research plan, an addendum is required which clearly explains the changes. Changes such as the addition of human participants, potentially hazardous biological agents, vertebrate animals, or hazardous chemicals, activities, and devices may require additional approval **OR** reapproval by the SRC/IRB.

Bibliography (In addition to ISEF rules p. 32)

If a student uses procedures taken from a published study, data from open-access data repositories, laboratory standards, or equipment/kit manual, a complete citation (ie. not simply a URL) **MUST** be included with the **research plan**; or the procedure **MUST** be completely written into the research plan.

- If a student uses humans, non-human vertebrates, or PHBAs (potentially hazardous biological agents) in their research, a reference to the protection of human participants, vertebrate animal care, or a reference to appropriate microbiological technique MUST be cited in their bibliography.
- 2. List the sources for safety information (ie: safety data sheet (SDS), safety manuals, algal bloom reports). Clickable links are preferred; do NOT include the printed SDS with the submitted research plan unless it is unavailable for reviewing online.
- 3. The use of Artificial Intelligence must be documented in the bibliography.

Human Participants Projects (In addition to ISEF rules pp. 6-9)

- 1. Methods (including links) for obtaining consent MUST be clearly explained in the procedures of the research plan.
- 2. Ethical concerns must always be considered by the student researcher and the local IRB. Not all areas of study are appropriate for pre-collegiate research. Evidence of pre-review and approval by a properly constituted IRB committee at the school or regional level is critical to ensuring these projects qualify for competition. See ISEF Rule Book pages 6-9.
- 3. Projects with greater than minimal risk require a Qualified Scientist. Risk Assessment Guide (LINK)
 - a. When projects involve medical procedures or medical diagnoses being performed, the supervising professional must serve as a Qualified Scientist and Direct Supervisor for this project. Form 1C must be completed for these projects. (see ISEF Rule Book page 7, #4)
- 4. Written parental consent is required for **ALL** projects involving minor human participants. (see ISEF Rule Book page 6, #2b)
 - a. Any participant under the age of 18 or still enrolled in a K-12 educational program is considered a minor.
 - b. Examples of digital collection options: OPTION A OPTION B (these options are NOT required, they are examples)
- 5. Student researchers with assent or consent forms must supply to the SSEF SRC the quantity of assent/consent forms using the Verification of Informed Consent Form (VICF) and a photocopy of the earliest signed Human Informed Consent Form (or digital consent responses) with personal identifiable data blacked out but NOT the dates blacked out.
- 6. If a student's project includes media, scripts, surveys (including recruitment or pre-qualification questions), songs or lyrics, these must be reviewed by an IRB prior to any contact with potential participants or experimentation and must be available for subsequent review at each level of competition. Ratings of virtual reality, videos and/or video games must be provided in the research plan and on the **Human Informed Consent Form** or applicable substitute.
- 7. The only allowable options for informed consent procedures involving digital surveys are those outlined in ISEF's Online Survey Consent Procedures. (LINK)

Non-Human Vertebrates (In addition to ISEF rules pp. 10-12)

- 1. If the project includes non-human vertebrates, the **Mortality Report Form** must be submitted along with all other required forms **even if no deaths occurred**.
- 2. For the purposes of ISEF rules regarding non-human vertebrates (pages 10-12), "experimental procedures" include both adequate husbandry as well as experimental treatments.
- 3. For all projects using non-human vertebrates the bibliography MUST include an animal care reference.

Disposal of Live Organisms (ISEF Rulebook page 3)

- 1. Organisms (such as those captured from the environment or those commercially purchased) **MUST NOT** be released into the environment before, during or after experimentation.
- 2. Appropriate disposal methods for organisms used **MUST** be listed in the Research Plan. Examples of appropriate disposal:
 - a. Aquatic plants should be frozen for at least 24 hours or dried completely before being disposed of in the household garbage. Non-native plants should be frozen and sealed in plastic bags before being disposed of in the household garbage. NEVER dispose of non-native plants with landscaping waste.
 - b. Invertebrates may be frozen for 24 hours, then sealed in plastic and placed in trash.
 - c. BEFORE starting a project involving non-native animals (examples Cuban tree frogs, lionfish), contact the Florida Fish and Wildlife Conservation Commission for appropriate disposal techniques (remember, student researchers cannot euthanize vertebrates).

Potentially Hazardous Biological Agents (PHBA) (In addition to ISEF rules pp. 13-17)

- 1. The SSEF of Florida observes the following clarifications regarding Biosafety Level classifications:
 - a. If a PHBA strain has discrepant sources regarding BSL classification, assume the **higher** BSL distinction. Examples include HIV or certain H5N1 strains of influenza.
 - b. When working with PHBAs that are plant pathogens, both the traditional biosafety level (BSL-1 or BSL-2) as well as the plant biosafety level (BL-1P or BL-2P) must be followed when determining suitability for use based on the student's grade level, facility needs, and supervision. Suggested Guidance: <u>University of Arizona Plant Biosafety Levels</u>
- 2. The following PHBAs are PROHIBITED for use in projects that participate in the SSEF of Florida:
 - a. A project involving research with any coronavirus particle is prohibited.
 - b. The use of wild-collected mushrooms is prohibited.
 - c. Use of the <u>WHO-identified "Bacterial Priority Pathogens"</u> of known drug-resistant microbes is prohibited. Examples include but are not limited to: carbapenem-resistant Enterobacteriaceae (CRE), methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant *Enterococcus* (VRE), *Klebsiella pneumoniae* carbapenemase (KPC) producing bacteria, *Candida auris* and others.
 - d. Contact with emerging pathogens carried by arthropod vectors (mosquitoes, flies, etc.) is prohibited.
- 3. Junior Section researchers may NOT conduct BSL-2 PHBA projects. Junior section researchers may NOT use...
 - a. virus particles
 - b. cyanobacteria (unless a certified toxin-free strain from a reputable vendor)
 - c. red tide
- 4. **Senior Section** researchers must conduct projects at a Regulated Research Institution if they involve...
 - a. virus particles (except bacteriophages, which require a minimum of a BSL-2 facility)
 - b. cyanobacteria (unless a certified toxin-free strain from a reputable vendor)
 - c. red tide

NOTE: See also "Work in the Field" rule #2 in this document.

- 5. Student researchers may only conduct projects that involve sub-culturing from microbial fuel cells if conducted at a Regulated Research Institute (RRI).
- 6. For precollegiate research, if a student opens a culture after the student's initial inoculation or subcultures from a student-inoculated culture, whether known or unknown microorganisms, the project will be treated as BSL-2, even if only opened by the student for the purposes of disposal.
- 7. SSEF does not recognize ISEF exemptions of PHBA organisms (see ISEF Rulebook page 15 and 17) when cultured. Prior SRC approval is required for PHBA organisms. Students must complete a Form 3 and Form 6A.

- a. Seniors are permitted to conduct *C. elegans* work with *E. coli* OP50 as a food source (in alignment with ISEF Rulebook, p. 15) under BSL-1 conditions, despite the need to reopen plates for feeding. This feeding must be performed in conjunction with a direct supervisor. Experimentation **MUST** be terminated at first signs of contamination and/or colormorphological changes to the plate and immediately disposed of according to PHBA rules. **Juniors are not permitted to perform this work.**
- 8. All PHBA projects MUST include detailed, step-by-step procedures that **clearly describe**:
 - a. personal protective equipment (PPE) items used to reduce risks to the researcher;
 - b. aseptic technique (standard microbiological procedures that prevent cross-contamination);
 - c. sterilization of work surfaces and reusable equipment before and after use (Ex: 10% bleach or 70% ethanol);
 - d. disposal of cultures and culture media in accordance with either ISEF rules or Regulated Research Institution's biohazard disposal procedure.
- 9. All PHBA projects MUST include in the bibliography:
 - a. a reference for microbiological practices and aseptic techniques.
 - b. Documentation of source, strain, and BSL classification of all PHBAs
- 10. All PHBA projects MUST include a BSL1 or BSL2 checklist, as appropriate, (<u>www.ssefflorida.com</u>) unless the work is conducted at a Regulated Research Institute (RRI). See ISEF rules, page 23, for the definition of an RRI.

Additional Guidance

To retain a BSL-1 classification, a project must meet ALL of the following requirements:

- a. Culturing work must be performed in a BSL-1 rated facility, never in a home environment.
- b. Organisms being cultured are either known BSL-1 organisms from a reputable vendor or are unknown microorganisms sampled from a location (except those with high probability of containing BSL-2+ organisms).
- c. If a stock culture, provided by either a reputable vendor or a Regulated Research Institute, needs to be replated or "reconstituted" before the student accesses it for their project, the Direct Supervisor may perform ONE subculture for this purpose.
- d. Once the student performs the initial inoculation, the student does NOT open the culture again for any reason. The Direct Supervisor may open the culture only to perform final disposal.
- e. An example of proper disposal by a Direct Supervisor includes submerging sealed plates in 10% bleach solution, removing the seals, and opening the plates to be soaked for at least 30 minutes.
- f. These rules are due to heightened chances of environmental contamination during inoculation by precollegiate researchers. The rules are stricter than standard microbiological practice in professional settings (where known BSL-1 organisms may be subcultured and still maintain BSL-1 containment).

Use of Hazardous Chemicals, Activities, or Devices (In addition to ISEF rules pp. 18-20)

These rules are pending further clarification from the ISEF Committee

- 1. All projects involving hazardous chemicals, activities, or devices MUST include a Form 3.
- 2. Hazardous chemicals are those with a National Fire Protection Association (NFPA) ranking of 2 or higher in any category AND/OR a Global Harmonized System (GHS) category designation of 1 or 2, as listed on the chemical's Safety Data Sheet (SDS).
 - a. Whenever possible, the exact chemical's (brand and item) SDS should be referenced. If the exact chemical's SDS is not findable, researchers must find the closest available brand's published SDS. Many SDSs are available through Flinn Scientific, Sigma Aldrich, and other online repositories.
 - b. Adult Sponsors and other research mentors are also recommended to consult the <u>Florida Department of Education's Safety in Science guide</u> (last published 2015).
- 3. Projects involving hazardous chemicals MUST include a Form 3 and be reviewed by the local SRC **PRIOR** to experimentation. If NFPA ratings are not provided in a chemical's Safety Data Sheet (SDS), then careful consideration of the SDS hazard information, including any GHS hazard statements, should be used to determine whether the chemical and its use requires SRC prior approval.

- 4. Chemicals regulated by the state of Florida or a federal agency must have documented permission and knowledge of legal requirements submitted with project paperwork for SRC prior approval to experimentation (ex. pesticides, fertilizer, petrochemical disposal, etc.).
- 5. Junior Section researchers may NOT work with Schedule 1 or 2 drugs.
- 6. **Senior Section** researchers may only work with Schedule 1 or 2 drugs at a Regulated Research Institute under the supervision of a Qualified Scientist that provides copies of the DEA Research License and completed DEA Form 222 as attachments to ISEF Form 2. DEA Controlled Substances (https://www.dea.gov/drug-information/drug-scheduling).
- 7. Projects involving the use of CBD oil, hemp oil, or related products are only permitted in the **Senior Section** and must be done at a Registered Research Institution (RRI).
- 8. Projects where the student engages in significantly hazardous activities requires SRC prior review and approval. Examples include student activity in water-based or near-water venues, operation or passage in a water-craft; or where the student collects data involving **any** motorized vehicles.
- 9. Projects involving the use of **any projectile devices** require SRC prior approval and must be supervised by a qualified Direct Supervisor.
 - a. Projects involving firearms or archery must be conducted on a range and supervised by certified range personnel. A copy of the certification should be provided as an attachment to Form 3.
 - b. Range parameters MUST be described in the Research Plan.
- 10. Projects involving laser light (in the visible range OR above/below) require SRC prior approval and MUST include the following in the research plan:
 - a. citation for eye-safety of the laser (for example: http://www.lasersafetyfacts.com/laserclasses.html);
 - b. for any/all lasers used: manufacturer, model name/number, class, emission wavelength and wattage (mW);
 - c. any amplification or focusing techniques used for ANY part of the project involving laser light;
 - d. a detailed description of the environment in which the experiment will be performed that includes:
 - i. eye safety, with explanation of rationale for the level of safety used;
 - ii. any shielding of laser equipment, including safety of power sources;
 - iii. the removal or covering of all reflective surfaces in the environment;
 - iv. the containment of laser emissions within a controlled area, such as covering all windows and doors.
- 11. Projects involving drones require SRC prior approval. Rules regarding the use of drones (in addition to ISEF rules page 19):
 - a. All unmanned remote operated aircraft, subsequently referred to as drones, must be registered with the FAA at https://faadronezone.faa.gov/#/
 - b. All drone flights require the **presence** of the Direct Supervisor.
 - c. A description of the safe environment in which the drone is operated must be included in the Research Plan.
 - d. Use of drones MUST adhere to <u>Florida State Statute 934.50</u> as well as all local and ISEF rules on such craft. If drones are used in a research project, documentation of adherence to local and state requirements must be included in the Research Plan procedures and on Form 3. (http://www.leg.state.fl.us/statutes/index.cfm?App mode=Display Statute&URL=0900-0999/0934/Sections/0 934.50.html).

Work in the Field

- 1. When research is carried out on private property, prior written permission from the property owner must be secured and submitted with project paperwork. City, county, and/or state parks may require prior approval for students to collect samples. If so, all approvals must be secured and submitted with project paperwork. Approval to work at a Regulated Research Institution or Industrial Setting is implicitly provided by the inclusion of a Form 1C in the project's paperwork and does not require additional written permission.
- 2. **Environmental water sample collections:** Because of the seriousness of the effects of exposure to water containing cyanobacteria or Red Tide:
 - a. Under NO circumstances may any student make collections or samplings during an active cyanobacteria or Red Tide bloom.

- b. Documentation must be provided that confirms samples were collected during non-bloom periods.
 - i. For example, the Research Plan should include procedure steps to check the bloom report before collecting as well as a bibliographic link to the appropriate report (DEP/FWC).
 - ii. In addition, a screenshot may be attached to Form 3 confirming non-bloom status for the date of collection. If water is collected over multiple dates from the same location, only the earliest needs to be submitted with project paperwork (though best practice would be for all to be kept in the Research Log).
- c. Current bloom reports: Freshwater from Florida DEP (cyanobacteria): https://floridadep.gov/AlgalBloom. Saltwater from FWC (Red Tide): https://myfwc.com/research/redtide/statewide/.
- 3. Any project involving the collection of protected/regulated organisms, either plants or animals, **MUST** include documentation from appropriate governmental agencies in their original paperwork submission to the SRC.
 - a. Collection of aquatic animals or plants MUST be made under the supervision of a holder of the state's Educator's Aquatic Collection Permit. (https://myfwc.com/license/saltwater/special-activity-licenses/)
 - b. Anything on the noxious weed or prohibited plant lists would require a permit from FDACS, unless the plant is growing on the researcher's own property and will not be transported from that property.
 Invasive species: https://www.floridainvasives.org/plant-list/2023-invasive-plant-species/
 Endangered and protected species: https://www.fdacs.gov/Consumer-Resources/Protect-Our-Environment/Botany
- 4. When collecting organisms with potential toxicity, precautions must be documented in the Research Plan.
- 5. The use of wild-collected mushrooms is prohibited.
- 6. Projects involving archeological or paleontological excavations MUST be accompanied by appropriate documentation from the state organization or governmental agency responsible for oversight of such procedures. This documentation MUST be submitted with other required paperwork to the SRC.
 - a. It is illegal to dig for artifacts without the landowner's permission.
 - b. On state-owned and controlled lands, including sovereignty-submerged lands, a <u>permit</u> from the <u>Divisions of Historical Resources</u> (<u>DHR</u>), <u>Bureau of Archaeological Research is required</u> to conduct archeological investigations. Digging for artifacts on state lands without a permit from DHR is a <u>felony</u> (<u>Sections 267.061 and 267.12-13</u>, <u>Florida Statutes</u>, <u>and Chapter 1A-32</u>, <u>Florida Administrative Code.</u>) https://dos.myflorida.com/historical/archaeology/public-lands/research-permits/
 Permits for vertebrate fossil excavation:
 https://www.floridamuseum.ufl.edu/vertpaleo/amateur-collector/fossil-permit/permit-application/
 - c. Digging on **federal** land requires a permit and **illegal digging is a felony offense.** Contact the federal land manager for more information on obtaining permission to dig on federal lands.

Display and Safety (In addition to ISEF rules pp. 24-27)

- 1. There will be no electricity available at the SSEF of Florida.
- 2. No project materials may be distributed to judges.
- 3. All projects will sit on a table (no floor-standing displays will be allowed). **Projects may not exceed 66" in height from the table**, 30" in depth, and 48" width.
- 4. Projects MUST be capable of standing upright without toppling, even against normal indoor air currents (such as when someone walks by quickly, the air conditioner turning on, etc.).
- 5. Acknowledgements recognizing contributions of a university, professional organization or mentor, or grant funding agency MUST be contained to one section of the poster, in text-only format, and cannot include logos.
- 6. All photos/visual images/graphs/charts/data tables are individually and completely cited, including URLs where appropriate.