



2021-22

**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 *ISEF Rules & the SSEF Rules Supplement*.

1. The Regional Director **MUST** make every effort to ensure that each person and committee involved in science research or intending to participate in an affiliated science fair receive copies of both *ISEF & SSEF Rules Supplement* documents and follow **ALL** the rules outlined within them.
2. 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*.
3. **SSEF has the right to make rules stricter than those stated by ISEF.**
4. **Review this SSEF Rules Supplement carefully so that you are aware of these additional requirements.**
5. Regional and local fairs may also adopt more restrictive rules.
6. Teachers/adult sponsors are to critically review and approve projects/research plans before research/experimentation begins.

SSEF of Florida Scientific Review Committee

All Projects entering the SSEF of Florida are required to be reviewed and **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 **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:

Contact the SSEF of Florida Scientific Review Committee

flscifair.src@gmail.com

Eligibility for SSEF of Florida

1. Each SSEF of Florida affiliated fair may send to SSEF of Florida the number of projects allocated and committed to within their affiliation agreement.
2. A student must be selected by the SSEF of Florida affiliated fair.
3. Each student is only allowed to enter one project. That project may include NO MORE than 12 months of continuous research and may NOT INCLUDE research performed before January 2021.
4. Team projects must have no more than three members. Teams competing at SSEF of Florida must be composed of the original members who competed at the SSEF of Florida affiliated fair.
5. Students may compete in only one SSEF of Florida affiliated fair.
6. 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.**

Research Plan

1. A Research Plan is a detailed step-by-step outline of the student's involvement in procedures utilized during the research process and is required. The research plan must include materials, chemicals (stated in appropriate metric units), apparatus used, and organisms or subjects involved in a clear step-by-step procedure that can be followed. It must also include safety considerations, aseptic techniques and disposal. DO NOT SUBMIT A RESEARCH PAPER.
2. The Research Plan should not include details about procedures in which the student researcher was not directly involved. (See ISEF Form 1A for Research Plan Instructions)
3. Any step performed by a supervising adult should be clearly identified.
4. A Project Summary is only required if the student makes a change in the procedures outlined in the student's original Research Plan.

Continuation Projects

Continuation projects are encouraged. They lead to expanded scientific knowledge and enhanced scientific skills. However, they must comply with ISEF rules for a **substantive expansion** (ISEF Rules, page 4). It is recommended that **PRIOR** to experimentation, Form 7 should be completed. This will ensure an appropriate change in goal, purpose, objective, or methodology.

Abstracts

1. All abstracts for the **2022 SSEF MUST** be on the **approved 2022 SSEF Abstract form** which is available at www.ssefflorida.com.
2. The Official Stamped Abstract must be displayed at or on the project board.
3. **No copies of the abstract or research plan may be distributed to judges or to the public.**

Bibliography – SSEF will continue to require 5 bibliographic references including those indicated below:

1. If a student uses procedures taken from a published study, laboratory standards, or equipment manual, a complete citation **MUST** be included with the **Research Plan**; otherwise the procedure **MUST** be written in complete detail into the research plan.
2. If a student uses humans, non-human vertebrates, or PHBAs (Potentially Hazardous Biological Agents) in their research, a reference to the protection of human subjects, vertebrate subject care, or a reference to appropriate microbiological technique **MUST** be cited in their bibliography (see pages 23-25 ISEF Rules).
3. List the sources of safety information (ie: SDS) in the Reference section. Do NOT include the SDS with the submitted research plan.

Project Display

1. For the project display certification requirements refer to <https://ssefflorida.com/display/>.
2. There will be **NO** electricity available for display lighting purposes. Electricity will only be available on a pre-paid fee basis and may only be used if it is a necessary part of the experimental process.
3. There shall be no acknowledgements on the project display board or in the abstract.
4. There shall be no brand names or commercial logos on the project display. These may be in the research plan, research paper or log book.
5. There may be a student generated logo used one time anywhere in the project display.

Human Participation Projects

1. **Ethical concerns should always be considered by the IRB.** Not all areas of study are appropriate for Pre-Collegiate Research. Overlooking ethical concerns can result in the project failing to qualify (FTQ).
2. All Human participation projects that involve minors will be considered greater than minimal risk.
3. Written parental consent is required for **ALL** projects involving participation of minors.
4. Students conducting research at a registered research institute (RRI) that requires IRB or IACUC approval must have the appropriate documents approved by the committees at the institute where the research is being done (ISEF Human Participant Rules, #2b). Documentation from the student's mentor is **not** sufficient.
5. Student researchers with assent or consent forms must supply the quantity of each type (assent or consent) using the **Verification of Informed Consent Form (VICF)**. (www.ssefflorida.com), a **Form 4**, and one **redacted Consent Form** to the SSEF SRC.
6. If a student's project includes media, scripts, surveys, songs or lyrics these must be reviewed by an IRB prior to experimentation and must be available for subsequent review at each level of participation. Rating of videos and/or video games must be provided in the research plan and on the informed consent form.
7. Any student project that results in providing a medical diagnosis to a human participant, such as through a student generated app, is prohibited.

Non-Human Vertebrates

1. If the project involves use of non-human vertebrates the *SSEF MORTALITY REPORT* must be submitted along with all other required forms to the Regional and State SRC whether or not any deaths occurred. This form is available from the *FFFS* website at www.ssefflorida.com.
2. For the purpose of husbandry responsibilities, experimentation date is established as the moment you take possession of the subject animal.
3. Any action taken involving obtaining and setting up the experiment is included in experimental responsibilities for the vertebrate (ex. Setting up aquaria).
4. If a member of any experimental group or subgroup dies during experimentation a degreed professional with experience in necropsy must document cause of death and absence of connection to experimentation.
5. For all projects using non-human vertebrates the bibliography **MUST** include an animal care reference. (see ISEF Rules pages 23-25)
6. Animals obtained from commercial sources or any captured invasive species may **NOT** be released into the environment.

Potentially Hazardous Biological Agents

1. **A project involving research with any Corona-Virus particle is prohibited.**
2. PROJECTS INVOLVING **BSL2 PROCEDURES** (i.e., opening an actively growing culture or sub-culturing) may **NOT BE PERFORMED BY JUNIOR DIVISION RESEARCHERS**. An initial sub-culture from a known stock culture may be performed by either a designated supervisor or qualified scientist mentoring the project.
3. SSEF does not recognize ISEF exemptions of PHBA organisms when cultured. Prior SRC approval is required for PHBA organisms. Students must also complete a Form 3 and Form 6A.
4. Projects utilizing viruses are only permitted in the Senior Division and must be done in a Registered Research Institution (RRI requirements see ISEF page 7). Any Corona-Virus particle is prohibited.
5. For **ALL** projects involving potentially hazardous biological agents, a detailed description of *aseptic techniques* and *disposal methods for media and cultures* **MUST** be included in the Research Plan. The only acceptable methods of disposal are those outlined in the **ISEF** rules or an approved use of the institution's **biohazard disposal procedure** with detailed documentation. These procedures must be thoroughly outlined in the Research Plan and cited in the Bibliography.
6. All PHBA projects must include a BSL1 or BSL2 checklist, as appropriate, (www.ssefflorida.com) unless the work is conducted at a Regulated Research Institute (RRI). See ISEF rules, page 7, for the definition of an RRI.

PHBA Work Prohibited by the SSEF

1. **A project involving research with any Corona-Virus particle is prohibited.**
2. The use of wild-collected mushrooms is prohibited. Use of carbapenem-resistant Enterobacteriaceae (CRE), methicillin-resistant Staphylococcus aureus (MRSA), vancomycin-resistant Enterococcus (VRE), klebsiella pneumoniae carbapenemase (KPC) producing bacteria, and **Candida auris** and other related resistant microbes **is prohibited**.
3. Sub-culturing from Microbial Fuel Cells is prohibited unless work is conducted at a Regulated Research Institute (RRI).
4. No projects involving emerging pathogens carried by arthropod (mosquitoes, flies, etc.) vectors are allowed.
5. **Environmental water sample collections:** Because of the seriousness of the effects of exposure to water containing cyanobacteria or red tide, here are the SSEF rules regarding water collection and sampling from the field:
 - a. Under NO circumstances can any student make collections or samplings during an active cyanobacteria or red tide bloom.
 - b. Documentation must be provided that confirms that samples were collected during non-bloom periods.
6. **Experimentation Involving Cyanobacteria or red tide:**
 - a. **Junior Division** participants may NOT conduct experimentation on cyanobacteria or red tide.
 - b. **Senior Division** participants may only conduct research on cyanobacteria or red tide if carried out a Regulated Research Institution (RRI).

Use of Hazardous Chemicals, Activities, or Devices

1. Projects involving the use of hazardous chemicals, activities, or devices **MUST** include a Form 3 and be reviewed by the local SRC **prior** to experimentation.
Examples included but not limited to:
 - a. water-based or near-water venues including but not limited to operation or passage in a water-craft
 - b. the use of any chemicals with a National Fire Protection Association (NFPA) ranking of 2 or higher
 - c. motorized vehicles
2. If the chemicals being used are regulated by a state or federal agency, documented permission and knowledge of legal requirements must be submitted with project paperwork for SRC prior approval to experimentation (ex. pesticides, fertilizer, petrochemical disposal, etc.).
- New** 3. Schedule 2 drugs may only be used in research projects in the Senior category. The student/s must be supervised by a Qualified Scientist with a DEA Research license. The work must be conducted in a Regulated Research Institute that holds a DEA license and completed Form 222. Juniors may not work with Schedule 2 drugs.
4. Projects involving the use of any projectile devices must be supervised by a qualified Designated Supervisor.
 - a. Projects involving the use of fire arms must be conducted on a range supervised by certified range officer.
 - b. Projects involving Archery must be conducted on a range under the supervision of an adult
 - c. Range parameters must be described in research plan.
5. Projects involving the use of CBD oil or Hemp oil are only permitted in the Senior Division and must be done in a Registered Research Institution.
6. Projects involving laser light (in the visible range OR above/ below) must include the following:
 - a. citation for eye-safety of the laser, <http://www.lasersafetyfacts.com/laserclasses.html>
 - b. emission wavelength AND wattage (mW) of all lasers used
 - c. class of all lasers used
 - d. manufacturer, model name and number of all lasers used
 - e. any amplification or focusing techniques used for ANY part of the project involving laser light
 - f. a detailed description of the environment in which the experiment will be performed that specifically addresses:
 - o eye safety, with explanation of rationale for the level of safety used
 - o any shielding of laser equipment, including safety of power sources
 - o the removal or covering of all reflective surfaces in environment
 - o the containment of laser emissions within a specific and controlled area, such as all windows and doors are completely covered

Use of Drones

1. All unmanned remote operated aircraft, subsequently referred to as drones, must adhere to [Florida State Statute 934.50](#) as well as all local and ISEF rules on such craft. If these vehicles are used in a research project, documentation of local and state requirements must be included with other project protocols.
2. If the drone flight path is over private property, permission from the property owner must be secured and documented.
3. Drones must be registered with the FAA at <https://registermyuas.faa.gov>
4. A description of the safe environment in which the drone is operated must be included in the experimental procedures.
5. All drone flights require presence of the Designated Supervisor.
6. Drones cannot be operated over state parks, airports, or military installations without express written consent of a supervisor of said facility. This includes any form of data collection and/or payload delivery or retrieval.

Collection of Organisms or Artifacts

1. Any project involving collection of protected/regulated organisms whether plants or animals, **MUST** include documentation from appropriate governmental agencies in their original paperwork submission to the SRC. Collection of aquatic animals or marine plants must be made under supervision of a holder of the state's Educator's Aquatic Collection Permit.
2. 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.
<https://floridainvasivespecies.org/plantlist.cfm>
3. Appropriate disposal methods for these plants **MUST** be listed in the research plan.
4. Aquatic plants should be frozen for at least 24 hours or dried completely before being disposed of in the household garbage.
5. Other invasive plants should be sealed in plastic bags before being disposed of in the household garbage.
6. **NEVER** compost or dispose of invasive plants with landscaping waste.
7. When collecting plants with potential toxicity, precautions must be documented and the research plan.
8. Non-native animals **MUST NOT** be released, even if they were caught in the wild. BEFORE starting a project involving non-native animals (example - Cuban tree frogs, lion fish), contact the Florida Fish and Wildlife Conservation Commission for appropriate disposal techniques (remember, student researchers cannot euthanize vertebrates).
9. Organisms collected from the wild or purchased and subjected to experimental **treatments** may not be released into the environment after experimentation. Disposal must be documented.
10. It is illegal to dig for artifacts without the landowner's permission. On state-owned and controlled lands, including sovereignty-submerged lands, a **permit** from the **Divisions of Historical Resources (DHR), Bureau of Archaeological Research is required** to conduct archeological investigations.
11. Digging for artifacts on **state** lands without a permit from DHR is a third degree felony (*Sections 267.061 and 267.12-13, Florida Statutes, and Chapter 1A-32, Florida Administrative Code.*)
12. 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.
13. 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.

CONTACT RESOURCES:

1. **Animals: Florida Fish and Wildlife Conservation Commission** myfwc.com
For: Captive wildlife; fishing regulations; Non-native species issues; Species conservation measures; Permitting guidelines; Species profiles; and other related issues
2. **Archaeology: Florida Department of State, Division of Historical Resources** files.floridados.gov
For: 1A-32 Permits, Collection, and Curation Guidelines
3. **Paleontological collections:**
Florida Statute 1004.57` <http://www.flmnh.ufl.edu/vertpaleo/vppermit.htm>
For: Florida Fossil Permits Regulations
4. **Plants: Florida Department of Agriculture and Consumer Services - Division of Plant Industry** FDACS.gov
For: Regulations governing invasive and endangered plants and plant pathogens

7/31/2021

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SSEF of Florida Scientific Review Committee

For ISEF or SSEF of Florida rules questions, students, teachers, and fair directors may contact the SSEF of Florida Scientific Review Committee:

flscifair.src@gmail.com

Chairperson: Sharon Suits

Tia Brown

Jennifer Davis

William Furiosi

Karen Johnson

Cynthia Letcher

Maia McGuire

Maggie Molledo

Raul Montes

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Kim Rex

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Dan Thomas

Nancy Webster

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