International Rules for Pre-Collegiate Research: Guideline for Science and Engineering Fairs

Final Changes for 2026-2027

The following items were the key changes made to the International Rules for 2026-2027.

All Projects (pages 3-5)

In Eligibility/Limitations (page 3, #8):

- Artificial Intelligence (AI) may be used as a resource but must be cited and given proper acknowledgment. A student is expected to do independent work and all materials presented must be in the researcher's own words. A student may not use generative AI to write the research plan, abstract, poster or to create citations (it is known to hallucinate and falsify references).

Under Documentation and Approval, #1 was edited:

1. Student researchers must have a Research Plan that includes:
    a. Rationale
    b. Research Question/Hypothesis(es), Engineering Goal(s), Expected Outcomes
    c. List of Materials
    d. Procedures
    e. Risk and Safety
    f. Data Analysis
    g. Bibliography

Human Participant Rules (pages 6-9)

Under Prohibited, #1 b. was edited to include #1 d.:

- Students are prohibited from disclosing research data from their study and/or from providing advice, diagnostic or medical information to participants ~~without direct supervision and involvement of a medical professional.~~

Under Rules, #2c:

- For studies involving minors, if the study includes a survey, the survey must be attached to the consent form as part of the written parental permission process and parental permission obtained prior to the minor accessing the survey.

Under Rules, #6:

- Studies that involve recruitment and interaction with human participants online or via the internet are allowed if they adhere to all of the human participant rules above regarding consent processes and restrictions, including obtaining written parental permission for studies involving minors. This written parental permission must include a copy of the survey and be obtained prior to a minor accessing the online survey. In order to protect the confidentiality of the participants, it is extremely important that IP addresses, as well as the data provided, be safeguarded.

Vertebrate Animal Rules (page 10-12)

Under Prohibited Studies, #4 b. was added:

- b. For agricultural/aquacultural projects raised for food see “After Experimentation/Euthanasia" section.

Potentially Hazardous Biological Agents (PHBA) Rules (page 13-15)

Under Prohibited Studies, #5 was edited to clarify the prion rule:

- All studies involving the use of prions or commercially available purified prion-like proteins are prohibited. This includes studies working with amyloid-beta (Ab), tau, alpha-synuclein, transactive response DNA-binding protein of 43kDa, amyloid fibrils, and Huntingtin protein. Studies involving plasmids that contain genes encoding prion-like proteins are also prohibited.

Under Prohibited Studies, #8 was edited:

- Students are prohibited from collecting water samples during a Harmful Algal Bloom (HAB). Qualified personnel may collect the water samples and provide the student with the samples for testing. All water testing must be done in a BSL-2 lab, under BSL-2 conditions.

Under Rules, #8 was edited for clarity:

- Studies involving animal models that have been bred to express prion-like proteins, including but not limited to C. elegans and Drosophila, are permissible in a BSL-1 laboratory, if the studies are behavioral only and do not involve lysing or dissection of cells or purification of proteins. Work involving the lysis of cells or cell lines and/or purification of prion-like proteins must be conducted in a BSL-2 laboratory, under BSL-2 conditions.

Under Projects Involving Unknown Microorganisms:

- a. was deleted as it was a repetition of b.

Under Exempt Studies (no SRC pre-approval required):

- Studies involving Lactobacillus, Bacillus thuringiensis, nitrogen-fixing bacteria (excluding cyanobacteria), oil-eating bacteria, and algae-eating bacteria introduced into their natural environment (not exempt if cultured in a petri dish environment)

Tissue & Body Fluid Rules (page 16-17)

Under Rules, #7 was re-arranged for clarity:

- 7. Studies involving blood and/or blood products:

  a. If involving human blood, research must be considered BSL-2 and done under the supervision of a Qualified Scientist. If only the blood of the student researcher, it is exempt from this requirement.

  b. If involving wild animal blood, research must be considered BSL-2 and done under the supervision of a Qualified Scientist.

  c. If involving domestic animal blood, the study may be considered a BSL-1 study.

  d. All blood must be handled in accordance with OSHA and APHIS standards and guidelines. Any

tissue or instruments with the potential of containing blood-borne pathogens (e.g. blood, blood products, tissues that release blood when compressed, blood contaminated instruments) must be properly disposed of after experimentation. Studies of human body fluids, where the sample can be identified with a specific person, must have IRB review and approval, and informed consent.

Under Exempt Tissues, b. and d. were edited for clarity:

- b. Plant and vertebrate ~~non-primate~~ established cell lines and tissue culture collections (e.g., obtained from the American Type Culture Collection). The source and/or catalog number of the cultures must be identified in the Research Plan/Project Summary and on ~~forms 6A and 6B~~ Form 3.
- Collection and/or study without culturing of eggs, pasteurized milk or fresh/frozen meat and meat by-products obtained from food stores, restaurants, or packing houses. ~~and eggs or pasteurized milk~~

Hazardous Chemicals, Activities, or Devices Rules (page 18-19)

Under CHEMICALS, #2 was edited.

- Projects involving chemicals that are listed as carcinogenic, teratogenic, or reproductive system damaging on the SDS must be conducted at an RRI or in a restricted access fume hood outside of the regular classroom (i.e. school lab). The qualified scientist and direct supervisor must have training in the usage, safe handling, and disposal of the chemicals.

Under DEA Controlled Substances, #2 was edited to remove marijuana, as it's federal designation changed.

- All studies using DEA Schedule 1 substances ~~(including marijuana)~~ must have the research protocol approved by DEA before research begins. Schedule 2, 3 and 4 substances do not require protocol approval by DEA.

Forms

All form headers were edited for clarity and consistency.

Student Support Disclosure Form (2A)

- This is a new form that is required for all projects. It can be filled out before or after experimentation by the finalist.

Qualified Scientist Form (2B)

- Renumbered to be 2B
- Question 5 was added
  - Please describe your anticipated role in this project and the duration of your support.

Regulated Research Institutional/Industrial Setting Form (2C)

- Renumbered to be 2C
- Question 2b. was added
  - What was the duration of your support of this student project?

Human and Vertebrate Animal Tissue Form (6B)

- Checkboxes were added to question 1 to provide more tissue options.