

# Science Fair 101

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## Are You Ready for ISEF?

TXSEF follows **ISEF Rules and Regulations**.

To prevent issues, establish and enforce the rules early.

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## What's New (2026 Updates)

### Display & Safety

- **Max display height** = 240 cm (94.4 in) from floor
  - TXSEF tables = 76.2 cm → **Board height** = 163.8 cm (64.4 in)
  - Projects over height are disqualified unless fixed before Display & Safety closes (March 27, 2026).

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## SRC Rule Changes

### Human Participants

- No disclosing participant data.
- **All minors require assent + parent permission.**
- If using a facility (e.g. daycare), you must also have **facility consent**.

### Vertebrate Animals

- **Cephalopods** (squid, octopus) are treated like vertebrates.
- **No barbed hooks, live bait, or electrofishing.**

### PHBA (Biological Hazards)

- **Prions and prion-like proteins** (e.g. amyloid- $\beta$ , tau) are prohibited.
  - **Animal tissues that have been bred to express prion-like proteins (such as *C. elegans* and *Drosophila*) are permissible but in a BSL-2.**
- Follow **BSL-2 protocols** and include them in the **research plan**.
- **Active algae bloom water** and **vector-borne pathogens** = BSL-2.

### Hazardous Chemicals

- **GHS rating 1 and NFPA 4 → Must be in school or lab.**
  - **GHS of 2-5 can be done at home, school, or RRI if chemical is being used as intended. If not, then must be used in school, or RRI.**
- At home:
  - Follow SDS for safety, ventilation, disposal.
  - No reusing kitchen equipment.
  - Must have trained **Direct Supervisor**.
- Disposal procedures:
  - Minimal chemical use
  - Environmentally safe disposal
  - Follow all regulations (local/state/federal)

### AI Use

- Can be used for data compilation, coding.
- **Must disclose how and when used.**
- **AI can't write** the research plan, abstract, or paper.

- Cite AI used in **APA format**.
- **Recommended:** Print transcript in case a judge asks.

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## Citation Guidelines for Images, Photos, Graphs

- **Tables**  
If tables are part of a uniform group, they may be cited with one citation.
- **Graphs/Tables Created by Student**  
Use this wording: *"Graphs (or tables) were created by the student using [program/software]."*
- **Photos Taken by Student**  
Number the photos and cite them as:  
*"Pictures 1–[X] show progression and were taken by the student."*
- **Images from the Internet/Articles**  
All images must be cited in **APA format**.  
If images come from a **journal article**, use the proper **journal citation**, not just an image citation.  
Do **not** cite images as simply "Google Images." Instead, cite the **original source**.
- **Images Created by Student**  
Use this wording: *"Image created by student using [program], [date]."*
- **Formatting Notes**
  - Images can be numbered or lettered, then listed on the board.
  - Citations must be in **APA format**.
  - Font size must be large, clear, and easy to read.

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## Form Changes (2026)

### Human Participants (Form 4)

- Questions #4–6 revised for facilities & consent.

### PHBA (Form 6A)

- Add BSL-2 checklist
- May require IBC/IACUC pre-approval
- Section 4 removed (SRC signature no longer needed)

### Tissues (Form 6B)

- IRB approval needed for human tissues (except established cell lines)

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## IRB vs. SRC

IRB	SRC
Reviews <b>human participant</b> studies	Reviews <b>PHBA</b> and <b>vertebrate animal</b> studies
3 members: educator, admin, medical/health pro	3 members: biomedical expert, educator, other
Must approve <b>before experimentation</b>	Checks supervision, forms, ethics, plagiarism
Evaluates project <b>risk level</b>	Signs off on forms: 1B, 5A, 6A

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## IRB: Risk Levels

### Minimal Risk

- Normal activities
- Common food/drink
- Age-level tests
- Anonymous surveys

### Greater Than Minimal Risk

- Strenuous activity
- Unfamiliar foods
- Personal questions
- Non-anonymous data

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## IRB: Consent Requirements

- **All minors require parent permission**
- **Facility use** needs **written approval**
- Consent forms:
  - Junior: Safety and Consent Form
  - Senior: Informed Consent Form

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## Human Participant Rules

- **Form 4 required**
- Must describe **where/how data is stored & disposed**
- Must upload **all materials** (songs, surveys, games, etc.)
- **Example:**
  - 20 people test student's app → Requires Form 4
  - Only researcher/teacher tested → Exempt from Form 4

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## Vertebrate Animal Rules

- **No pain, death, or distress allowed** (except at regulated institution with IACUC)
- Senior: Needs **Form 5A or 5B**, SRC or IACUC approval
- Junior: Signatures from **teacher + vet or biomedical expert**

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## PHBA Rules

Includes: bacteria, viruses, mold, rDNA, tissues, blood, fluids

- No **culturing at home**
- BSL-2 requires plan & training
- PHBA requires:
  - **Form 6A**
  - Possibly **Form 6B**
  - Qualified Scientist Form 2

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## Hazardous Chemicals & Devices

- Requires **Form 3**
- Must report **GHS & NFPA** ratings in research plan
- Must describe:
  - Handling
  - Ventilation
  - **Disposal** in accordance with SDS
- **Includes** firearms, lasers, alcohol, prescription drugs, etc.

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## Research Location

- If working at a **lab or business**:
  - Senior: **Form 1C**
  - Junior: **Letter of permission**
- Should be signed by the **person monitoring the student**

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## Ethics Statement

Scientific fraud is unacceptable:

- Includes plagiarism, forgery, falsifying data, or misusing others' work
  - Can result in disqualification and revocation of awards
- Senior Projects:
- Must check for plagiarism
  - Outside help = **Form 1C**
  - Repeated projects = **Form 7**

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## Junior Division Rules

- Grades 6–8
- Individual or teams (up to 3)
- Must submit:
  - Safety & Consent Form
  - Research Plan
  - Abstract
- Actual signatures required
- No brand names shown
- Continuation project = 1 year max

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## Senior Division Rules

- Grades 9–12
- Same individual/team guidelines
- Submit:
  - Forms 1, 1A, 1B
  - Research Plan
  - Abstract
- Additional forms depending on project
- Actual signatures required
- Form 1C for mentorship
- Form 7 for continuation

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## THREE MAJOR RED FLAGS

1. **Human Participants** – Requires IRB approval (Form 4)
2. **Vertebrate Animals** – Requires SRC pre-approval (Form 5A/5B)
3. **Microbiology/PHBA** – **Never done at home**, requires Form 6

