

# Rules for Indiana Elementary and Middle School Science Research 2023-2024



A Publication of

Science Education Foundation of Indiana, Inc.  
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[www.sefi.org](http://www.sefi.org)

## Acknowledgments

Much of this document is taken liberally from the Intel International Science and Engineering Fair document “International Rules for Precollege Science Research: Guidelines for Science and Engineering Fairs 2023-2024.” Available online at <https://www.societyforscience.org/isef/international-rules/rules-and-guidelines/>

The Purpose of this document is to develop a common set of rules and guidelines for projects in grades K-8 conducted at schools and homes across the state of Indiana for competition in a Regional Science Fair. All Regional Science Fairs are required to follow the Intel ISEF rules for students in grades 9-12. However, these rules and their associated forms have proven to be a hindrance to many students in the lower grades.

The rules and guidelines in this document are intended to secure the safety of students, parents and teachers while conducting a science fair project. It is our hope that each teacher will adopt these guidelines for projects at their school and district level science fairs. Regional Fairs are not required to use or accept this version of rules and guidelines. For region specific rules and guidelines, please contact your regional fair director. A comprehensive list may be found at [www.sefi.org](http://www.sefi.org)

**The Science Education Foundation of Indiana Hosts an online system free of charge to help teachers to manage registering their student’s entry into a regional science fair. Any student who intends to compete in a regional fair and be selected to participate in the state fair (HSEF) must have an active account with all project information included on the system. The teacher must agree to manage the account and help the student to meet all formal requirements for participation.**

[www.sefireg.org](http://www.sefireg.org)

Teachers must create an account and have their accounts authorized by the regional fair director. They will then be able to log in and create accounts for the students to begin the process of their scientific investigations.

For questions about the system, contact our Executive Director at [gcook@sefi.org](mailto:gcook@sefi.org)

### **All Projects**

Scientific Fraud and misconduct are not accepted at any level of science research. The work you submit for science fair must be your own work. Taking some other students project and submitting it as your work will lead to disqualification from competition.

### **Approval and Documentation**

1. Before you begin, you must submit to your teacher a project proposal and receive approval for the project you wish to do.

2. Certain projects are prohibited for students in grades K-8. If you desire an exception to this rule you will have to work with the Regional Fair Director and the Scientific Review Committee in your Region to get permission to proceed.
3. Display guidelines for Intel ISEF must be followed by all participants.
4. Every student should have the following items as part of their science fair project display.
  - **Logbook:** The logbook contains a dated account of everything that concerns the project. Every student is required to keep detailed notes, original observations and data from the experiment in the logbook.
  - **Research Paper: (usually for grades 6-8)** This part of the project is typically 4-10 pages long. It should be typed or written in ink. It is based upon the information that was kept in the logbook and it also includes the review of literature (background science) that was conducted before the experiment began.
  - **Exhibit Board:** The purpose of the display is to show what the student has done. It includes elements from the research paper. The exhibit should be visually appealing. Photographs that are dated and labeled are useful to relay the progress of the experiment, and/or the outcome of the experiment.
  - **Abstract:** a one-page summary (not more than 250 words) that states the purpose, hypothesis, procedures and conclusion of the project. (see addendum for help).
5. Team Projects may be allowed in a regional fair (local rules will apply). No team may have more than three (3) members. ***Each Team members' name must be entered into the registration system separately and linked by a teacher to be in a group.*** Only the team leader needs to submit the abstract.
6. Teachers and Parents are responsible for ensuring that these rules are followed, and the student project is safely designed and supervised at all times.

## PROHIBITED / RESTRICTED RESEARCH

**The research topics below are either not permitted or have conditions for students in grades K-8. This is not a comprehensive list. Teachers who have concerns about projects should contact the Regional Fair Director for guidance.**

## PERMITTED RESEARCH WITH CONDITIONS

**Bacterial Studies** (GRADES 6-8 only) Must be conducted in a school setting using one of the approved bacterial cultures only as long as the teacher is trained and the school is certified for BSL-1 work. [The school must be certified as a BSL-1 or better by the regional Scientific Review Committee \(SRC\).](#) Contact your Regional Fair Director for certification. **NO BACTERIAL STUDIES**

FOR STUDENTS IN ELEMENTARY SCHOOL (GRADES K-5) WILL BE ACCEPTED FOR ENTRY TO ANY INDIANA REGIONAL FAIR REGARDLESS OF WHERE THE WORK WAS DONE.

PLEASE NOTE:

MOST MIDDLE SCHOOLS DO NOT QUALIFY UNDER BSL-1 RULES FOR APPROVAL.  
ELEMENTARY SCHOOLS ARE NOT ELIGIBLE TO RECEIVE THIS STATUS.

**Human Subjects** may be used only if all experimentation is conducted under adult supervision and student researchers have notified parents of the conditions of the experiment and provided the opportunity for their child to opt out of participation. **Human Subjects projects must follow the high school rules and form requirements for prior approval. EACH SCHOOL MUST ESTABLISH A REVIEW BOARD (IRB) TO EVALUATE AND APPROVE HUMAN SUBJECTS PROJECTS ACCORDING THE THE IRB GUIDELINES (SEE APPENDIX FOR REFERENCE)**

According to Code of Federal Regulation 45, CFR 46, a human participant is a living individual about whom an investigator conducting research obtains (1) data or samples through intervention or interaction with individuals(s) or (2) identifiable private information.

Examples of projects that are considered “human participant research” include:

- Participants in physical activities (e.g., physical exertion, ingestion of any substance, any medical procedure)
- Psychological, educational and opinion studies (e.g., surveys, questionnaires, tests)
- Studies in which the researcher is the subject of the research
- Testing of student designed invention, prototype or computer application by human participants other than student researcher
- Data/record review projects that include data that are not de-identified/anonymous (e.g., data set that includes name, birth date, phone number or other identifying variables)
- Behavioral observations that
  - involve any interaction with the observed individual(s) or where the researcher has modified the environment (e.g., post a sign, place an object).
  - occur in non-public or restricted access settings (e.g., day care setting, doctor’s office)
  - involve the recording of personally identifiable information.

Participation in research may begin only after research participants have voluntarily given informed consent/assent (in some cases with parental permission). Adult research participants may give their own consent. Research participants under 18 years of age and/or individuals not able to give consent (e.g. developmentally disabled individuals) give their assent, with the parent/guardian providing permission.

The School IRB will determine whether the consent/assent/ parental permission may be a) verbal or implicit or b) must be written.

- a. Informed consent requires that the researcher provides complete information to the participant (and where applicable, parents or guardians) about the risks and benefits associated with participation in the research study, which then allows the participants and parents or guardians to make an informed decision about whether or not to participate.
- b. Participants must be informed that their participation is voluntary and that they are free to stop participating at any time (i.e., they may participate or decline to participate, with no adverse consequences of non-participation).
- c. Informed consent may not involve coercion.
- d. When written parental permission is required and the study includes a survey, the survey must be attached to the consent form.

**Animal Behavior Studies** Research projects of this type should be reviewed AND MONITORED by a Veterinarian to ensure the safety of the student and animal. **These projects must follow the high school rules and form requirements for prior approval.**

## PROHIBITED PROJECTS – NO EXCEPTIONS

**Radioactive substances** or equipment that emits any form of ionizing radiation

**Hazardous Chemicals** or reagents, DEA Controlled substances, tobacco, alcohol, prescription drugs, firearms or explosives.

**Biological Agents Experiments at Home** projects that use or study microorganisms including bacteria, viruses, prions, fungi and parasites.

Some research may be possible if conducted in the school under the supervision of a properly trained teacher. (see above)

**Vertebrate Animal Research involving pain**, withholding of food or water.

All Vertebrate animal research should be reviewed by a Doctor of Veterinary Medicine.

**Class IV Lasers** (All use of Lasers must be under direct supervision of a qualified adult)

# Display & Safety Rules

## Display & Safety Committee Mission

The mission of this committee is to ensure that all competitors qualify for competition according to the rules established in conjunction with the Scientific Review Committee and Society for Science.

The Display & Safety inspection process can be initiated only when all items are present at the display. The Display & Safety Committee will offer guidance on Display & Safety issues for projects approved by the SRC to compete. Occasionally, the Display & Safety Committee may require students to make revisions to conform to Display & Safety regulations. Persistent issues will be directed to a committee of individuals which may include Society for Science (the Society) personnel, Display & Safety (D&S) and/or Scientific Review Committee (SRC) executive committee members.

The following regulations must be adhered to when a finalist exhibits a project. All projects must adhere to the Display & Safety requirements of the affiliated fair(s) in which they compete to qualify for participation in. Affiliated fairs may have additional restrictions or requirements. Knowledge of these requirements is the responsibility of the Finalist, Adult Sponsor, and Fair Director.

## DISPLAY REGULATIONS

### Maximum Size of Project

**Depth (front to back): 30 inches or 76 centimeters**

**Width (side to side): 48 inches or 122 centimeters**

**Height (floor to top): 108 inches or 274 centimeters**

Please be aware when ordering posters that the mechanism supporting the poster should conform to the maximum size limitations stated above.

- All project materials and support mechanisms must fit within the project dimensions (including table covers).
- Fair-provided tables will not exceed a height of 36 inches (91 centimeters).
- If a table is used it becomes part of the project and must not exceed the allowed dimensions.
- Nothing can be attached to or leaning on the rear curtain.
- All demonstrations must be done within the confines of the finalist's booth space. When not being demonstrated, all project components must be returned to the project display and must fit within allowable dimensions as defined above.
- Projects can be continued under the table BUT this area is not to be used for storage.

### Position of Project

The fair provided table or freestanding display must be parallel to, and positioned at, the back the table. Projects may NOT lean against the wall.

### Forms Required to be Visible and Vertically Displayed at the Project Booth

The placement of the required forms may include the front edge of the table, the display board, or in a free-standing acrylic frame placed on the table top or floor (if a table is not used).

### **Forms required at all projects:**

1. An original Official Abstract and Certification as approved (stamped/embossed) by the Scientific Review Committee.
  - a. Upon SRC approval, the stamped/embossed Official Abstract and Certification will be provided to the student at their booth.
    - The abstract must be the official International Science and Engineering Fair Abstract and embossed/ stamped by the ISEF Scientific Review Committee.
    - No other format or version of your approved Abstract & Certification will be allowed, including ones printed from your virtual display/booth, for any purpose at ISEF. Abstract handouts to judges and to the public are limited to UNALTERED photocopies of the official abstract and certification.
  - b. The term “abstract” may NOT be used as a title or reference for any information on a finalist’s display or materials (including research papers) at the project except as part of displaying the official stamped/embossed abstract.
    - It is the recommendation of the Display & Safety Committee to NOT include the word “abstract” nor the abstract itself when preparing backboards or posters prior to the fair. However, it is reasonable to leave a blank space (8½” x 11”) on the backboard/poster so as to facilitate the addition of the official abstract. Keep in mind this document can also be displayed vertically on the front edge of the table or in a free-standing acrylic frame.

### **Additional Forms required (only when applicable):**

1. Regulated Research Institutional/Industrial Setting Form (1C) {High School Only}
  - If work was conducted in a regulated research institution, industrial setting or any work site other than home, school or field at any time during the current ISEF project year, the **Regulated Research Institutional/Industrial Setting Form (1C)** must be completed and both pages vertically displayed (single-sided) at the project booth.
  - The information provided by the mentor on Form 1C may be referenced to confirm that the information provided on the project board is that of the finalist. Only minimal reference to a mentor’s or another researcher’s work is allowable and must only reflect background information or be used to clarify differences between finalist’s and others’ work
2. Continuation/Research Progression Projects Form (7) {High School Only}
  - If a study is a continuation/research progression, the Continuation/Research Progression Projects Form (7) must be completed and vertically displayed at the project booth.
  - The display board and abstract must reflect only the current year’s work. The project title displayed in the finalist’s booth may mention years of continuing research (for example, “Year Two of an Ongoing Study”).
  - Reference to past work on the display board must be limited to summative past conclusory data and its comparison to the current year data set. No raw data from previous years may be

publicly displayed; however, it may be included in the student research notebooks and/or logbooks if properly labeled.

### **Forms Required at Project but not Displayed {High School Only}**

- {High School Only} Forms, excluding those listed above, that were required for the Scientific Review Committee approval should not be vertically displayed, but must be available in the booth in case asked for by a judge or other ISEF official. These forms include, but are not limited to, Checklist for Adult Sponsor (1), Student Checklist (1A), Research Plan, Approval Form (1B), and a photograph/video release form.
- {ALL PROJECTS} A photograph/video release form signed by the subject is required for visual images of humans (other than the finalist) displayed as part of the project.

### **Forms NOT to be at the Project Display Booth or in the Exhibit Hall**

Completed informed consent/assent forms for a human participant study are NOT to be displayed and should NOT be present at the project display. The Finalist may include a sample (incomplete) form in their logbook or research notebook but under NO CIRCUMSTANCE should the completed informed consent/assent forms for a human participant be in the Exhibit Hall.

### **Photograph/Image Display Requirements**

1. Any photograph/visual image/chart/table and/or graph is allowed if:

- It is not deemed offensive or inappropriate by the Scientific Review Committee, Display & Safety Committee or Society for Science (including, but not limited to images/photographs showing invertebrate or vertebrate animals/humans in surgical, necrotizing or dissection situations).
- It has a credit line of origin ("Photograph taken by..." or "Image taken from..." or "Graph/Chart/Table taken from..."). If all images, etc. displayed were created by the finalist or are from the same source, one credit line prominently and vertically displayed on the backboard/ poster or tabletop is sufficient. All images MUST BE properly cited (digital object identifiers are acceptable in place of long URLs). This includes background graphics, photographs and/or visual depictions of the finalist or photographs and/or visual depictions of others for which a signed photo/video release form is in a notebook or logbook at the project booth. These signed release forms must be available upon request during the set-up and inspection process, but may not be displayed.
- Sample release text: "I consent to the use of visual images (photos, videos, etc.) involving my participation/my child's participation in this research."

2. Finalists using any presentation or demonstration (physical or digital) outside of a project board must be prepared to show the entire presentation to the Display & Safety Inspectors before the project is approved. All aforementioned rules apply to this presentation and the presentation may not be altered in any way after the final Display & Safety inspection. Examples of presentations that require approval include, but are not limited to PowerPoint, Prezi, Keynote, software program/simulation and other images and/or graphics displayed on a computer screen or other non-print delivery method.



## **Items/Materials Not Allowed on Display or at Project Booth**

1. Any information on the project display or items that are self-promotions or external endorsements are not allowed in the project booth

- The use of commercial logos including known brands, institutional crests or trademarks, flags unless integral to the project and approved by the SRC via inclusion in the Official Abstract and Certification.
- Any reference to an institution or mentor that supported the finalist's research except as provided in an acknowledgement section of the poster and within official ISEF paperwork, most notably Form 1C.
- Any reference to patent status of the project.
- Any items intended for distribution such as disks, CDs, flash drives, brochures, booklets, endorsements, give-away items, business cards, printed materials or food items designed to be distributed to judges or the public.

2. Any awards or medals.

3. Postal addresses, World Wide Web, email and/or social media addresses, QR codes, telephone and/or fax numbers of a project or finalist. Note: The only personal information that is permissible to include on the display is information that is also included on the Official Abstract and Certification (Finalist Name, School, City, State, Country). Information regarding finalist's age and grade are permitted.

4. Active Internet or email connections as part of displaying or operating the project.

5. Any changes, modifications, or additions to projects including any attempt to uncover, replenish or return removed language or items after the approval by the Display & Safety Committee and the Scientific Review Committee is prohibited.

- Display & Safety inspections will include recording photographic evidence of the approved Project Display and Project booth.
- Finalists who do not adhere to the signed agreement on the ISEF Project Set-up Approval Form regarding the following regulation may fail to qualify.

## **SAFETY REGULATIONS**

### **Not Allowed at Project or Booth**

Note: In the case in which a Finalist's Project includes an item that is prohibited from display, please consider taking photographs and/or documenting the significance of the prohibited item through video.

1. Living organisms, including plants
2. Glass
3. Soil, sand, rock, cement and/or waste samples, even if permanently encased in a slab of acrylic
4. Taxidermy specimens or parts
5. Preserved vertebrate or invertebrate animals

6. Human or animal food
7. Human/animal parts or body fluids (for example, blood, urine)
8. Plant materials (living, dead, or preserved) that are in their raw, unprocessed, or non-manufactured state
9. All chemicals including water. Absolutely no liquids can be utilized in the Project Display.
10. All hazardous substances or devices (Example: poisons, drugs, firearms, weapons, ammunition, reloading devices, grease/oil and sublimating solids such as dry ice)
11. Items that may have contained or been in contact with hazardous chemicals (Exception: Item may be permitted if professionally cleaned and documentation for such cleaning is available). Filters (including microbial) may not be displayed unless the Display & Safety Committee can reasonably determine that the device was cleaned or was never used (please include receipts in your notebooks and/or logbooks)
12. Sharp items (for example, syringes, needles, pipettes, knives)
13. Flames and highly flammable materials
14. Batteries with open-top cells or wet cells; no battery may be left in the exhibit hall overnight
15. Drones or any flight-capable apparatus unless the propulsion power source removed
16. 3D Printers unless the power source is removed
17. Inadequately insulated apparatus capable of producing dangerous temperatures are not permitted
18. Any apparatus with belts, pulleys, chains, or moving parts with tension or pinch points that are not appropriately shielded
19. Any display items that are deemed distracting (i.e. sounds, lights, odors, etc.)
20. Personal items or packing materials stored underneath the table or in the booth overnight
21. Any apparatus or project material deemed unsafe by the Scientific Review Committee, the Display & Safety Committee, or the Society

## **Electrical Regulations**

1. Electrical power supplied to the project is 120 or 220 Volt, AC, single phase, 60 Hz. No multi-phase will be available or shall be used. Maximum circuit amperage/wattage available is determined by the electrical circuit capacities of the exhibit hall and may be adjusted on-site by the Display & Safety Committee. For all electrical regulations, "120 Volt AC" or "220 Volt AC" is intended to encompass the corresponding range of voltage as supplied by the facility in which ISEF is being held.
2. Electrical devices must be protectively enclosed. Any enclosure must be non-combustible. All external non-current carrying metal parts must be grounded.
3. Energized wiring, switches, and metal parts must have adequate insulation and over-current safety devices (such as fuses) and must be inaccessible to anyone other than the finalist. Exposed electrical equipment or metal that may be energized must be shielded with a non-conducting material or with a grounded metal box to prevent accidental contact.
4. Decorative lighting or illumination is discouraged. If used, lighting must be as low a voltage as possible and must be LED lighting that does not generate heat. Incandescent and fluorescent light bulbs are prohibited. When student is not at the exhibit, all electrical power must be disconnected, or power bars must be switched off (Exception: during pre- judging audio visual displays may be available).
5. An insulating grommet is required at the point where any wire or cable enters any enclosure.
6. No exposed live circuits over 36 volts are allowed.

7. There must be an accessible, clearly visible on/off switch or other means of quickly disconnecting from the 120 or 220 Volt power source.

### **Laser/Laser Pointer Regulations**

Any Class 1, Class 2, Class 3A, or Class 3R lasers are allowed to be used responsibly. No other lasers may be used or displayed.

1. Laser beams may not pass-through magnifying optics such as microscopes and telescopes.
2. Lasers must be labeled by the manufacturer so that power output can be inspected. Lasers without labels will NOT be permitted.
3. Handheld lasers are NOT permitted.
4. Lasers will be confiscated with no warning if not used in a safe manner.

All posters must be representative of the work of the student. It must include only work done this school year. Parents and teachers are encouraged to assist in checking grammar and spelling for posters.

### **TYPES OF PROJECTS**

**Experimental:** This type of project begins with a question of a scientific nature. It involves changing a variable, observing and recording the effects of changing the variable, and interpreting the importance of these effects. Experimental projects must have a control group to compare results to. Repeated trials or the use of large sample sizes are important processes to reduce the possibility of error and increase the validity of the results.

**Descriptive Study:** These projects involve comparing two or more different groups. The set up is much like experimental projects but missing the element of a control group. In this type of study you could compare the amount of sea grasses in a protected area against areas frequented by boaters.

**Engineering:** This project involves redesigning or attempting to improve an existing process or device. It may include combining devices for a new purpose. The process of engineering is cyclical and has a set of engineering goals rather than a scientific question and hypothesis.

**Product testing** This type of project is typically not an acceptable scientific study, however some regional fairs will accept them from the lower grades. Check with your Regional Fair Director to confirm.

**Science Fair protocol prohibits any student from working with bacteria or fungi in their home. There are no exceptions to this rule.** Similarly, any work involving human or animal tissue will not be allowed in K-8 regional or school fairs. The student must read and cite the MSDS sheet for any chemical that is used in the experiment. Safety of the experimenter and the community must always be a priority and are the responsibility of the teacher and parent to monitor.

**The following format is recommended for organizing and writing the research paper:**

**Title Page:** Project Title, Your Full Name & Date Submitted

**Purpose/Question:** What question will your project be trying to answer? Should be in the format of an If...then statement. (Example: Will changing the temperature of a honey cause it's viscosity to change?)

**Variables, Constants and Control:** You need to list your Manipulated variable (what you change), your Responding variable (what you measure that changes based on your change) , your constants (what must stay the same) and the control group (what you are comparing the experimental group to).

**Research Section:** Before you begin your experiment, even before you make your hypothesis you should find out as much as you can about the related topics and underlying scientific principles that will be involved in your project. The purpose of this section is to show that you understand the branch of science this topic falls under, the related science concepts and specific vocabulary. This is a retelling in your own words of what experts know about the topic. Keep track of the sources you use and include them in the works cited page. This section of the paper may be at least 3 to possibly 4 pages long.

**Hypothesis:** On this page the purpose of the project is stated. The purpose should include what you plan to do, the reason you chose the topic, and what you were hoping to learn. The hypothesis is a written statement that concerns your prediction as to how the manipulated variable will affect the responding variable.

**Materials List/Procedures (Experimental Design):** The material list should include everything you used to complete your project. The procedures should follow a step by step format. The procedures should be detailed and explain all safety protocols that were followed to protect the experimenter and the community. If chemicals are used discuss the safe handling and disposal of the chemicals. This section of the paper may be one to two pages long.

**Data & Graphs:** Once the experiment starts all possible data should be collected and recorded in the logbook. For the report, organize this data into charts, tables and graphs. Use line graphs whenever possible and the metric system at all times. This section of the paper may be one or more pages long, depending on the amount of data collected.

**Conclusion:** Follow a three paragraph format to ensure the conclusion is thorough. The first paragraph is a discussion of the hypothesis and data. Restate the hypothesis and decide if the data supported this statement or did not support it. Retell the data using the numbers, and/or your analysis of the numbers such as the mean, median or mode. State your inference concerning why the data turned out the way it did. The second paragraph discusses the problems or concerns you had during the experiment. Include new ideas that came to you that you might use as the basis of a science project in the future, or ways to change this idea to use in the future. The last paragraph states what you learned as the result of this project. Include any observations you made as to how this information can be applied to real life. This is one page.

**Works Cited:** Using MLA or APA style, document all books, magazines or electronic information sources that you used for your review of literature.

From Science Buddies

[http://www.sciencebuddies.org/science-fair-projects/project\\_ideas/Safety\\_Guidelines.shtml](http://www.sciencebuddies.org/science-fair-projects/project_ideas/Safety_Guidelines.shtml)

Safety should be a primary concern for every science experiment. The good news is that most projects you'll find on the Science Buddies website involve virtually no risk. However, almost any tool or technique, no matter how safe, can be used in an unsafe manner. At the same time, many potentially dangerous tools are perfectly safe if they are used in the proper way. So how do you know if your project is within reasonable safety guidelines? Science Buddies recommends you ask three simple questions to test your project's level of safety.

1. Is it safe for other people or animals that are involved? All projects involving humans as subjects must involve minimal risk. Unacceptable risks include ingestion of any substance or physical contact with any potentially hazardous materials, as well as unnecessary physical, psychological, or emotional stress, including invasion of privacy. Even if you are simply surveying other students, you should review your questions in advance and decide if the questions meet this test, and determine if a parent/guardian's consent is needed for any students that are participating. If you're not sure, don't hesitate to ask a teacher, parent, or mentor to help you decide.

Live animals (in particular vertebrate animals-those with a backbone) should be housed, cared for, and observed in a safe and humane manner.

2. If you are participating in another science fair after your classroom or school fair, does your project meet the safety rules for that higher-level fair? If you will be participating in a city or county-wide fair, make sure that the projects meet the rules of that fair. Science fairs affiliated with the Intel International Science and Engineering Fair (ISEF) must follow very strict and detailed safety rules, often including preapproval before experimentation begins.
3. Finally, have you addressed safety concerns to your parents' and teacher's satisfaction? Make sure you address all safety issues in your project proposal so your adult supervisors are aware of any issues ahead of time. Your teacher will then evaluate your project based on the following questions:
  - Where will the experiment be performed?
  - What safety gear will be used?
  - Who will be supervising the experiment?
  - Are you knowledgeable about or do you have training in the procedures being used? If in doubt about the safety of the experiment, ask your teacher, parent, or mentor for advice. Be prepared to choose another project if your teacher decides that yours does not meet the appropriate school safety guidelines. Hopefully good common sense and the questions above will help you put together a fun, informative, and safe science fair project.

## ONLINE REGISTRATION SYSTEM

SEFI offers to schools and regions an online registration system that teachers should use to help organize the school level fair. When a teacher creates an account on the system they will be able to

give access to students. This system must be used if you are planning on attending the regional fair. Additional information can be found on the SEFI website [www.sefireg.org](http://www.sefireg.org)

## Regional Fairs in Indiana:

East Central Indiana Regional Science Fair	Ball State University
Lafayette Regional Science Engineering Fair	Purdue University
Northeastern Indiana Regional Science Fair	Purdue University at Fort Wayne
Northeastern Indiana Tri-State Regional Science Fair	Trine University
Northern Indiana Regional Science & Engineering Fair	Notre Dame
Tri-State Regional Science & Engineering Fair	University of Southern Indiana
West Central Indiana Science & Engineering Fair	DePauw University
Central Indiana Regional Science & Engineering Fair	Marian University

FOR SPECIFIC DATES AND TIMES VISIT OUR WEBSITE

[www.sefi.org](http://www.sefi.org)

Look under the link “Regional Fair” for your region.

## Project Categories

The categories listed below are those used at the State Science Fair. Local and regional fairs may or may not choose to use these categories, dependent on the needs of their area. Please check with your fair(s) for the appropriate category listings at that level of competition.

### Category Selection Advisement:

Many projects could easily fit into more than one category. It is your decision to choose the category that most accurately describes your project.

Ask yourself the following questions to help in the selection of a category:

1. Who will be the most qualified to judge my project? What area of expertise is the most important for the judge to have? (For example, a medical background or an engineering background?)
2. What is the emphasis of my project? What characteristic of my project is the most innovative, unique or important? (For example, is it the application in medicine or the engineering of the machine? Is it inserting the proper gene or the method of computer mapping to demonstrate the results?)

Animal Sciences

Behavioral & Social Sciences

Biomedical & Health Sciences

Cellular/ Molecular Biology & Biochemistry

Chemistry

Earth & Environmental Sciences

Engineering (*all except environmental*)

Environmental Engineering

Intelligent Machines, Robotics and Systems Software

Mathematics & Computer Sciences

Microbiology

Physics & Astronomy

Plant Sciences

**THE ELEMENTARY AND MIDDLE SCHOOL FORM THAT FOLLOWS THIS PAGE IS ACCEPTED IN LIEU OF THE FULL ISEF FORMS FOR STUDENTS IN GRADES K-8 WITH THE EXCEPTION OF PROJECTS INVOLVING HUMAN, VERTEBRATE ANIMAL, OR BACTERIAL STUDIES. THESE PROJECTS SHOULD USE THE FULL ISEF FORMS SET FOR PRIOR APPROVAL.**

*Check with your regional fair director for additional explanation of the rules and requirements for your students' projects.*



## Indiana Junior Division Project Form

<b>Last Name:</b>	<b>First Name</b>		<b>Grade</b>	
<b>Email Address:</b>	<b>Phone:</b>	<b>Gender</b>		
<b>School Name</b>		<b>School City</b>	<b>State</b>	<b>Zip</b>
<b>School Phone:</b>		<b>Teacher Approval:</b>		
		By signing here the Teacher has approved this project plan:		
<b>Teacher Name</b>	<b>Teacher Email</b>	_____ <small>Date</small>		

Is this a Team Project?  Yes  No (if yes complete top section of form for each team member)

### Project Proposal:

In the boxes provided describe the project you want to do for science fair.

Question:

  
  
  

Hypothesis:

Experimental Method: *(Attach separate pages if needed)*

References:

(1)

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(2)

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If you marked yes to any of the items at the bottom of page one, answer the appropriate questions below in the space provided. Your Teacher may have you answer additional questions before giving approval.

*Does this project use any of the following items?*

\_\_\_\_\_ Human Subjects\*    \_\_\_\_\_ Animals\*    \_\_\_\_\_ Bacteria, Yeast, DNA or other  
Pathogens\*  
\_\_\_\_\_ Chemicals    \_\_\_\_\_ Hazardous Substances    \_\_\_\_\_ Hazardous Equipment

***HUMAN SUBJECTS PROJECT (REQUIRES IRB APPROVAL AND ISEF FORMS)***

1. If you are doing a survey or test involving humans or animals describe in detail what you are doing.
  - a. Are there any possible risks involved for the test subjects?
  - b. If yes, how will you prevent injury?
2. If you are using Humans, you must share your research plan with the parents of test subjects under 18 years old and have them give you permission to use their child in your research.

***VERTEBRATE ANIMAL PROJECT (REQUIRES SRC PRIOR APPROVAL, AND A VETERINARIAN TO MONITOR)***

1. If you are using animals, you must have this plan reviewed by a veterinarian or other trained person for animal safety.
2. What safety procedures will you use while experimenting?

***BACTERIA, YEAST PROJECTS (ONLY GRADES 6-8 MAY CONDUCT THESE PROJECTS AND NEVER AT HOME. REQUIRES SRC PRIOR APPROVAL AND ISEF FORMS)***

1. List in detail what items you will be studying and where you will get them. (All of these studies must be done under the supervision of a trained adult in a high school or certified lab.)
2. How will you dispose of your organisms after your research?
3. What safety procedures will you use while experimenting?

***CHEMICALS/HAZARDOUS SUBSTANCES/HAZARDOUS EQUIPMENT***

***(REQUIRES QUALIFIED SUPERVISION AND ISEF FORM 2(QUALIFIED SCIENTIST) AND FORM 3 (RISK ASSESSMENT FORM))***

1. List all chemicals, substances, and equipment that you will be using for your experiment.
2. From where will you get each of these items?
3. What safety procedures will you use while experimenting?