REQUIRED RESEARCH FORMS

GUIDE & CHECKLIST

GSEF GEORGIA SCIENCE+ ENGINEERING FAIR 2024

Forms required for all grade 6-12 Georgia STEM research projects to be eligible for regional and state level fairs.

All projects (grades 6-12) competing in regional fairs in Georgia and the statewide Georgia Science & Engineering Fair must follow the ISEF Rules & Guidelines. The rules delineate forms and protocol that help ensure that the proposed student research is safe, ethical, and approved by a parent, teacher, and field professionals.

It is the responsibility of the student and the Adult Sponsor to know the rules and evaluate the proposed project to determine whether it requires special forms and approval before experimentation begins, as is the case for most projects using human participants, vertebrate animals, or potentially hazardous biological agents. Students are encouraged to use the ISEF Rules Wizard and consult with the local SRC/IRB to ensure they have followed all rules and completed all forms. Failure to adhere to ISEF Rules & Guidelines may result in disqualification at any stage of competition, including revocation of honors and awards.

See ISEF Rules & Guidelines for definition of terms, including Qualified Scientist (QS), Designated Supervisor (DS), Regulated Research Institution (RRI), Scientific Review Committee (SRC), and Institutional Review Board (IRB).

The ISEF Rules & Guidelines full text can be found at *www.societyforscience.org/isef/international-rules*

DOWNLOAD ALL

Forms required for EVERY project:

☐ **GSEF Participation Agreement**	(Required for state-level fair [GSEF]; school/regional fairs may require a different form for participation at those levels.) Not technically a research form, but required for every student participating in GSEF (not just one per project).
☐ **Official GSEF Abstract Form**	(Required for state fair [GSEF]; school/regional fairs may have different Abstract requirements.) Summarizes the most important ideas about your project and allows judges to quickly determine its nature and scope.
☐ **Checklist for Adult Sponsor [Form 1]**	DO BEFORE EXPERIMENTATION Adult Sponsor (with Student) reviews what forms and approvals are required to ensure project's compliance with ISEF rules, as well as local, state, and federal laws. Note: The Adult Sponsor may not serve on the SRC/IRB that reviews the project before and/or after experimentation.
☐ **Student Checklist [Form 1A]**	DO BEFORE EXPERIMENTATION Student provides basic details about research and experimentation. Must be accompanied by Research Plan / Project Summary (see below).
☐ **Research Plan / Project Summary** (free-typed; not a form)	DO BEFORE EXPERIMENTATION The Research Plan / Project Summary is written before experimentation to detail rationale, research question, methodology, and risk assessment. Any changes made during research can be added to the original Plan as an addendum, recognizing that some changes may require returning to SRC/IRB for review and approval.
☐ **Approval [Form 1B]** One form per student (not per project).	DO BEFORE EXPERIMENTATION Student, parent/guardian, and SRC (if required) consent to and approve the project. Must be signed by student and parent/guardian BEFORE EXPERIMENTATION. Must be signed by SRC in (2a) BEFORE EXPERIMENTATION if research involves human participants, vertebrate animals, or PHBAs and was not conducted at a RRI. For projects involving human participants, vertebrate animals, or PHBAs conducted at a RRI, SRC signs in (2b) after experimentation confirming institutional pre-approval and compliance with ISEF rules. Regional Fair SRC signs in section (3) after experimentation and prior to competition.

Additional forms required for specific types of research:

*Some types of research require approval prior to experimentation. See **ISEF Rules Wizard** and following page for guidance.*

☐ **Regulated Research Institution/ Industrial Setting [Form 1C]**	Required for research conducted at a ***college/university, medical facility, industrial setting,*** or other ***lab/research setting*** other than home, school or field. Completed by supervising adult at RRI after experimentation.
☐ **Qualified Scientist [Form 2]**	DO BEFORE EXPERIMENTATION Required for research with ***human participants, vertebrate animals, potentially hazardous biological agents,*** or ***DEA-controlled substances***. Completed by QS/DS BEFORE EXPERIMENTATION.
☐ **Risk Assessment [Form 3]**	DO BEFORE EXPERIMENTATION Required for projects involving ***hazardous chemicals, activities, devices,*** or ***DEA-controlled substances,*** some ***human participants*** projects, and some ***PHBA*** projects, including protists, composting, coliform test kits, decomposition of vertebrate organisms, and microbial fuel cells. Recommended for student-designed inventions/prototypes. Completed by Student and signed by QS/DS BEFORE EXPERIMENTATION.
☐ **Human Participants [Form 4]** (sample consent form)	NEED IRB APPROVAL BEFORE EXPERIMENTATION Required for research involving ***human participants***. Includes surveys, testing/providing feedback on invention/prototype/application, and cases where the researcher is the subject of the research. MUST BE APPROVED BY FULL IRB (ALL THREE SIGNATURES) BEFORE EXPERIMENTATION. IRB determines risk, supervision, and consent required.
☐ **Vertebrate Animal [Form 5A]** or **Vertebrate Animal [Form 5B]**	NEED SRC APPROVAL BEFORE EXPERIMENTATION Required for research involving ***vertebrate animals***. 5A is for research conducted at home/school/field, which MUST BE APPROVED BY SRC BEFORE EXPERIMENTATION. SRC determines level of supervision required (DS, QS, and/or veterinarian). 5B is for research conducted at a RRI, which must be approved by institution's IACUC. 5B is completed and signed by QS/PI after experimentation.
☐ **Potentially Hazardous Biological Agents (PHBAs) [Form 6A]**	NEED SRC APPROVAL BEFORE EXPERIMENTATION Required for research involving ***microorganisms, rDNA, fresh/frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products,*** or ***body fluids***. QS/DS selects box describing research setting and required approvals. MUST BE APPROVED BY SRC/IACUC/IBC BEFORE EXPERIMENTATION. SRC indicates agreement/approval before experimentation if *not* done at RRI or after experimentation if done at RRI.
☐ **Human/Animal Tissue [Form 6B]**	DO BEFORE EXPERIMENTATION Required in addition to 6A for research involving ***fresh/frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products,*** or ***body fluids***. MUST BE COMPLETED BY QS/DS BEFORE EXPERIMENTATION.
☐ **Continuation/Research Progression Project [Form 7]**	Required for projects that ***continue or expand upon a previous year's work***. Must be accompanied by Abstract and Research Plan from previous year(s).

PROJECTS REQUIRING APPROVAL PRIOR TO EXPERIMENTATION

All projects must have **Forms 1, 1A, 1B, Abstract** and **Research Plan**. Projects using **human participants**, **vertebrate animals**, or **potentially hazardous biological agents** require additional forms and **MUST BE APPROVED BEFORE EXPERIMENTATION BEGINS**. This guide can help determine what approvals are required but does not account for all situations and is not an exhaustive list of requirements. Additional forms are also required for projects that expand on student's past work, use a Qualified Scientist, are conducted at a RRI*, or involve hazardous chemicals, activities, or devices.

*Projects conducted at a **Regulated Research Institution (RRI)** have different requirements than those conducted at home, school, or in the field. RRIs include laboratories (government, college/university, commercial), medical facilities, hospitals, and industrial settings such as manufacturing facilities.

Review the ISEF Rules & Guidelines *before* beginning research: www.societyforscience.org/isef/international-rules

See rules for clarification of terms, including Qualified Scientist, Regulated Research Institution (RRI), Scientific Review Committee (SRC), Institutional Review Board (IRB), Institutional Animal Care and Use Committee (IACUC), and Institutional Biosafety Committee (IBC).

Project Component	Required Approvals and Forms — See ISEF Rules & Guidelines for complete rules	
HUMAN PARTICIPANTS A human participants project is any project that involves observing or collecting data from or about humans, including: • Having participant do a **physical activity,** even if low-risk (e.g., physical exertion, tasting a substance) • Psychological, educational, and opinion studies (including **surveys**, questionnaires, tests) • Study in which the student researcher is the subject of their own research (e.g., measuring heart rate) • Testing of student-designed invention, prototype, computer application, etc. by anyone other than student researcher • Data/record review projects that include data that are not de-identified/anonymous (e.g., includes name, birth date, phone number, or other identifying details) • Behavioral observations that a) involve interaction with individuals or where the researcher has changed the environment (e.g., posted a sign, placed an object); b) occur in non-public or restricted access settings (e.g., day care, doctor's office); or c) involve recording personally identifiable information	*If conducted at home/school/field:* ☑ **Project must be approved by the school IRB before experimentation begins.** ☑ **Human Participants [Form 4]** ☑ **Qualified Scientist [Form 2]** - *if applicable* ☑ **Risk Assessment [Form 3]** - *if applicable*	*If conducted at a RRI:* ☑ **Project must be approved by the RRI's IRB before experimentation begins.** ☑ **Regulated Research Institution [Form 1C]** ☑ **Qualified Scientist [Form 2]** - *if applicable* ☑ **Risk Assessment [Form 3]** - *if applicable*
	EXEMPTIONS - The following projects are exempt from IRB pre-approval: 1. Student-designed Invention, Prototype, Computer Applications, Engineering/Design Project or Consumer Product Testing in which the student researcher *is the only person testing* and testing does not pose health or safety hazard. **Risk Assessment [Form 3] is required for these projects.** **PLEASE NOTE** This exemption ***DOES NOT APPLY*** if the project involves more than the student researcher or **any introduction of a human variable or factor in the testing (e.g., amount of sleep, strength or endurance of tester, etc.)**. IRB review and pre-approval would be required in this case. 2. Data/record review studies (e.g., baseball or crime statistics) using preexisting, publicly available data sets that do not involve any interaction with humans or the collection of data from humans for the purpose of the project. 3. Behavioral observations of unrestricted, public settings (e.g., shopping mall, public park) where researcher has no interaction with the individuals being observed, the researcher does not manipulate the environment in any way, and the researcher does not record any personally identifiable data. 4. Projects in which the student receives pre-existing/retrospective data in a de-identified/anonymous format (must be certified by professional providing data and reviewed by SRC).	
VERTEBRATE ANIMALS Vertebrate animal studies involve any of the following: 1. Live, nonhuman vertebrate mammalian embryos or fetuses 2. Tadpoles 3. Bird and reptile eggs starting 72 hours prior to hatching 4. All other nonhuman vertebrates (including fish) at hatching or birth Research conducted at home/school/field must involve only agricultural, behavioral, observational or supplemental nutritional studies on animals AND only non-invasive and non-intrusive methods that do not negatively affect an animal's health or well-being.	*If conducted at home/school/field:* ☑ **Project must be approved by SRC before experimentation begins.** ☑ **Vertebrate Animal [Form 5A]** ☑ **Qualified Scientist [Form 2]** - *if applicable*	*If conducted at a RRI:* ☑ **Project must be approved by the RRI's IACUC before experimentation begins.** ☑ **Vertebrate Animal [Form 5B]** ☑ **Regulated Research Institution [Form 1C]** ☑ **Qualified Scientist [Form 2]** - *if applicable*
	EXEMPTIONS - Behavioral observations are exempt from SRC pre-approval if ALL of the following apply: a. There is no interaction with the animals being observed, b. There is no manipulation of the animal environment in any way, and c. The study meets all federal and state agriculture, fish, game and wildlife laws and regulations.	
POTENTIALLY HAZARDOUS BIOLOGICAL AGENTS (PHBAs) Potentially hazardous biological agents (PHBA) studies involve microorganisms (including bacteria, viruses, viroids, prions, rickettsia, fungi, and parasites), recombinant DNA (rDNA) technologies or human or animal fresh/frozen tissues, blood, or body fluids. A project is considered a tissue (PHBA) study and not a vertebrate animal study if the tissue is obtained from an animal that was euthanized for a purpose other than the student's project. Experimentation involving the culturing of potentially hazardous biological agents, even BSL-1 organisms, **is prohibited in a home environment**. The student researcher and supervising adults must conduct an initial risk assessment on PHBA Risk Assessment [Form 6A]. ***Note regarding PHBA projects conducted at a RRI:** PHBA projects must be approved by the RRI's IBC/IACUC before experimentation begins. If the RRI does not require prior review and approval, then the project must be reviewed and approved by an SRC before experimentation begins.	*If conducted at home/school/field:* ☑ **Project must be approved by SRC before experimentation begins.** ☑ **PHBA Risk Assessment [Form 6A]** ☑ **Human and Vertebrate Animal Tissue [Form 6B]** - *if applicable* ☑ **Qualified Scientist [Form 2]** - *if applicable*	*If conducted at a RRI:* ☑ **Project must be approved by the RRI's IBC/IACUC before experimentation begins*** ☑ **PHBA Risk Assessment [Form 6A]** ☑ **Human and Vertebrate Animal Tissue [Form 6B]** - *if applicable* ☑ **Regulated Research Institution [Form 1C]** ☑ **Qualified Scientist [Form 2]** - *if applicable*
	EXEMPTIONS - The following are exempt from prior SRC review **but require Risk Assessment [Form 3]**: protists and archaea; manure for composting, fuel production, or other non-culturing experiment; commercially available color change coliform detection test kits (sealed, properly disposed); decomposition of vertebrate organisms; microbial fuel cells (sealed, properly disposed) EXEMPTIONS - The following **involve BSL-1 organisms**, are exempt from prior SRC review, and require no additional forms: fermentation of baker's yeast and brewer's yeast (except rDNA studies); Lactobacillus, Bacillus thuringiensis, nitrogen-fixing, oil-eating, and algae-eating bacteria introduced into natural environment (not exempt if cultured); water or soil microbes not concentrated in media conducive to microbial growth; mold growth on food if experiment is terminated at evidence of mold; slime molds, edible mushrooms; E. coli k–12 (and other strains used solely as food source for C. elegans) used at school and not subject to rDNA or ARO rules EXEMPTIONS - The following tissues do not need to be treated as PHBAs: plant tissue (except toxic/hazardous); plant/non-primate established cell lines and tissue culture collections; human capillary/blood collection of student researcher to themself; fresh/frozen meat, meat by-products from food stores, restaurants, or packing houses, eggs, pasteurized milk; hair, hooves, nails, feathers; teeth sterilized to kill blood-borne pathogens; fossilized tissue, archeological specimens; prepared fixed tissue	