Republic of the Philippines
Department of Education
NATIONAL CAPITAL REGION
SCHOOLS DIVISION OFFICE OF MUNTINLUPA CITY

Office of the Schools Division Superintendent

MEMORANDUM
NO. 364 s. 2026

DIVISION SCIENCE, TECHNOLOGY, AND MATHEMATICS FAIR (DSTMF) 2026 FOR ELEMENTARY AND SECONDARY LEVEL

To: Assistant Schools Division Superintendent
Chief Education Supervisor (CID and SGOD)
Education Program Supervisors and Public Schools District Supervisors
Private and Public Elementary and Secondary School Heads/OICs
All Others Concerned

1. Pursuant to Regional Memorandum No. 594, s. 2026, regarding the Regional Science and Technology Fair (RSTF) 2026, this Office announces the conduct of the **Division Science, Technology and Mathematics Fair 2026 on September 04, 07 and 08, 2026, 8:00 a.m. -5:00. p.m.** at **Lakeview Integrated School, Putatan, Muntinlupa City**. This memorandum is issued for the information and guidance of all concerned.

2. Attached are the lists of competition categories, guidelines and the event matrix.

3. Immediate dissemination of this Memorandum is desired.

VIOLETA M. GONZALES CESO VI
Schools Division Superintendent

Enclosure: As stated,
Reference:
To be indicated in the Perpetual Index
Under the following subjects:

SCIENCE TRAINING LEARNERS TEACHERS

ABSO / DIVISION SCIENCE, TECHNOLOGY, AND MATHEMATICS FAIR (DSTMF) 2026 FOR ELEMENTARY AND SECONDARY LEVEL

364/August 03, 2026

DepED DEPARTMENT OF EDUCATION
BAGONG PILIPINAS
Student Center for Life Skills Bldg., Centennial Ave, Brgy. Tunasan, Muntinlupa City
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Republic of the Philippines
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NATIONAL CAPITAL REGION
SCHOOLS DIVISION OFFICE OF MUNTINLUPA CITY

DIVISION SCIENCE, TECHNOLOGY, AND MATHEMATICS FAIR 2026
FOR Elementary and Secondary Level

Category	Number of Entries per School	No. of Learners - Participants	Date and Venue
TUKLAS-Life Science (JHS or SHS)	Individual - 2	2	**Ingress:** September 07, 2026 10:00 am – 3pm **Presentation &Judging:** September 08, 2026 Venue: Lakeview Integrated School Putatan, Muntinlupa
	Team - 2 (6 members)	6	
TUKLAS- Physical Science (JHS or SHS)	Individual - 2	2	
	Team - 2 (6 members)	6	
TUKLAS- Robotics and Intelligent Machine (JHS or SHS)	Individual - 2	2	
	Team - 2 (6 members)	6	
TUKLAS- Mathematics and Computational Science (JHS or SHS)	Individual - 2	2	
STEM Innovation Expo (JHS or SHS)	Team - 2 (6 members)	6	
	Individual - 2	2	
Brainiac Quiz Bee- Elementary School Level	Team - 3 (Grades 4-6)	3	September 07, 2026 8:00 -10:00 am Venue: 4th Floor SDO Activity Center, Muntinlupa City.
Brainiac Quiz Bee- Junior High School Level	Team - 3 (Grades 7-10)	3	September 07, 2026 10:00 am – 12:00 nn Venue: 4th Floor SDO Activity Center,
Brainiac Quiz Bee- Senior High School Level	Team - 2 (Grades 11-12)	3	September 04, 2026 8:00 -10:00 am Venue: 4th Floor SDO Activity Center, Muntinlupa City.

Technical Working Group (Personnel)

MES – Carmelita D. Razon	MNHS- Racquel B. Bernal	Lakeview Integrated School – Head Teachers and Science Coordinators
BES- Mae M. Cabriga	MSHS-Marilu Lorzano	TNHS- Jayroe Ramos
PES – Catherine V. Santos	PNHS – Alfonso Inigo R. Yusingco	PEDHS- John Paul C. Padilla
Research Officers – SDO Muntinlupa	MBHS- Abigail M. Delios	MBHS-M- Marvin N. Vinalon

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DIVISION SCIENCE, TECHNOLOGY, AND MATHEMATICS FAIR 2026
FOR Elementary and Secondary Level

Category	Number of Entries per School	No. of Learners - Participants	Date and Venue
TUKLAS-Life Science (JHS or SHS)	Individual - 2	2	**Ingress:** September 07, 2026 10:00 am – 3pm **Presentation &Judging:** September 08, 2026 Venue: Lakeview Integrated School Putatan, Muntinlupa
	Team - 2 (6 members)	6	
TUKLAS- Physical Science (JHS or SHS)	Individual - 2	2	
	Team - 2 (6 members)	6	
TUKLAS- Robotics and Intelligent Machine (JHS or SHS)	Individual - 2	2	
	Team - 2 (6 members)	6	
TUKLAS- Mathematics and Computational Science (JHS or SHS)	Individual - 2	2	
STEM Innovation Expo (JHS or SHS)	Team - 2 (6 members)	6	
	Individual - 2	2	
Brainiac Quiz Bee- Elementary School Level	Team - 3 (Grades 4-6)	3	September 07, 2026 8:00 -10:00 am Venue: 4th Floor SDO Activity Center, Muntinlupa City.
Brainiac Quiz Bee- Junior High School Level	Team - 3 (Grades 7-10)	3	September 07, 2026 10:00 am – 12:00 nn Venue: 4th Floor SDO Activity Center,
Brainiac Quiz Bee- Senior High School Level	Team - 2 (Grades 11-12)	3	September 04, 2026 8:00 -10:00 am Venue: 4th Floor SDO Activity Center, Muntinlupa City.

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Republic of the Philippines
Department of Education
NATIONAL CAPITAL REGION

DEPARTMENT OF EDUCATION
RELEASED
RECORDS SECTION REGIONAL OFFICE-NCR
30 JUL 2026
BY: DATE:

July 28, 2026

REGIONAL MEMORANDUM
No. 594, s. 2026

To: Schools Division Superintendents
All others concerned

REGIONAL SCIENCE AND TECHNOLOGY FAIR 2026

1. The Department of Education - National Capital Region through the Curriculum Learning and Management Division (CLMD), shall conduct the **2026 Regional Science and Technology Fair** on **December 11-14, 2026** to be hosted by SDO Makati.

2. This event integrates the cultivation of crucial research skills such as critical thinking, problem-solving, and the stimulation of innovation and creativity. These competencies not only propel academic success but also prepare the students for excellence in their future academic pursuits and careers. Likewise, it aims to identify the most creative/innovative and the best student research who will represent the region in the upcoming National Science and Technology Fair (NSTF) on 2027.

3. The Science and Technology Fair shall be conducted by schools, districts, and divisions in accordance with DepEd Order No. 9, s. 2026 (Guidelines on the Implementation of the Three-Term School Calendar in Basic Education), and further guided by Regional Memorandum No. 423, s. 2026 (Regional Guidelines on Learning Management for School Year 2026–2027) and Regional Memorandum No. 450, s. 2026 (Calendar of Regional Contests for School Year 2026–2027).

4. **All public and private schools, including the Philippine Science High School Main Campus,** are enjoined to participate in the Division Science and Technology Fair (DSTF), as per DepEd Memorandum No. 006, s. 2026 or the guidelines of NSTF 2025-2026.

5. The official participants to the Regional Science and Technology Fair (RSTF) shall consist of: (a) the **Rank 1 winner** in each category of the Division Science and Technology Fair (DSTF), whose project has been **approved by the Scientific Review Committee (SRC)**, for the **Tuklas** and **STEM Innovation Expo** categories; and (b) the **Top 5 public school teams** of each Schools Division Office (SDO) for the **Brainiac** category. Substitution of official participants shall **not be allowed**. The elimination and selection of **private school representatives** for the Brainiac Category shall be conducted separately in partnership with **Our Lady of Lourdes Hospital**. The official participants per division shall be as follows:

RSTF Category	Official Participants per Division	Maximum Number of Student-Participants
Tuklas – Life Science	Individual: 1 student; Team: maximum of 3 students	4
Tuklas – Physical Science	Individual: 1 student; Team: maximum of 3 students	4

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Email address: ncr@deped.gov.ph
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Certificate No. PHP 0165 24 02 0193

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Tuklas – Robotics and Intelligent Machines	Individual: 1 student; Team: maximum of 3 students	4
Tuklas – Mathematics and Computational Science	Individual: 1 student; Team: maximum of 3 students	4
STEM Innovation Expo	Individual: 1 student; Team: maximum of 3 students	4
Brainiac – Elementary	3 students/team (Grades 4-6)	15
Brainiac – Junior High School	3 students/team (Grades 7-10)	15
Brainiac – Senior High School	2 students/team (Grades 11-12)	10
TOTAL NUMBER OF STUDENT - PARTICIPANTS		**60**

6. The Education Program Supervisors in charge of Science and Mathematics are requested to submit and upload the report of the conduct of Division Science and Technology Fair as well as the Data of all the Science and Mathematics research entries during the Division Fair in Excel using the format provided in Enclosure No. 3 on **October 16, 2026 until 5PM** together with the division's official entries to the Regional Science and Technology Fair. **Failure to submit the report and entries on time shall disqualify the Division from the 2026 Regional Science and Technology Fair**.

7. Participants, trainers and Technical Working Groups shall be entitled to service credits in accordance with DepEd Order No. 13, s. 2024 entitled *Revised Guidelines for the Grant of Vacation Service Credits for Teachers*. However, non - teaching personnel including Management Staff shall be given with Compensatory Time-Off (CTO) per Civil Service Commission (CSC) and Department of Budget and Management (DBM) Joint Circular No.2, s. 2004 on Non-Monetary Renumeration for Overtime Service Rendered, specific attention on Section 5.

8. The following documents are enclosed, for information and guidance of all concerned:

Enclosure No. 1	General Guidelines on the Conduct of Science and Technology Fair
Enclosure No. 2	*Brainiac* Mechanics
Enclosure No. 3	Formats for Submission of a. Report on the Conduct of STF b. Official List of Participants c. Individual Learners Media Release Form
Enclosure No. 4	Terms of References and NDA for a. Board of Judges b. Scientific Review Committee
Enclosure No. 5	Review and Recommendation Report
Enclosure No. 6	Formats for Project Evaluation Forms for: a. TUKLAS b. AGLITEKNO c. Project Poster Display d. On – the – Spot Poster Making e. Shoutout
Enclosure No. 7	Official ISEF Forms for SY 2026 – 2027
Enclosure No. 8	Companion Guide of ISEF and Guide for AI Usage from ISEF
Enclosure No. 9	Calendar of Important STF Activities and Requirements
Enclosure No. 10	Working Committees
Enclosure No. 11	Awards and Recognition for RSTF 2026

9. Meals, honorarium for judges, board and lodging, tokens, and events management and other related expenses for the conduct of RSTF 2026 shall be shouldered by the host division and the LGU. In addition, to support the conduct of RSTF, Program Support Funds is downloaded to the host division. Meanwhile, medals, trophies for the RSTF and expenses relative to the conduct of the Brainiac Category shall be charged against Our Lady of Lourdes Hospital funds. Furthermore, expenses relative to the participation of schools, included but not limited to transportation, printing of research papers, posters, tarpaulins and advocacy materials, as well as other incidental expenses, shall likewise be charged against their respective MOOE, local funds, or any other available sources, subject to existing government accounting and auditing rules and regulations.

10. For queries and concerns, please contact Don King O. Evangelista, OIC – Education Program Supervisor in Science, at donking.evangelista@deped.gov.ph and/or Lambert G. Quesada, OIC – Education Program Supervisor in Mathematics, at lambert.quesada001@deped.gov.ph.

11. Immediate dissemination of this Memorandum is desired.

JOCELYN DR ANDAYA
Regional Director, NCR
concurrent Officer-In-Charge, Office of the
Assistant Secretary for Operations

CLMD/2026/DKEvangelista

ENCLOSURE 1: General Guidelines on the Conduct of Science and Technology Fair

Most of the information here is from the NSTF 2026 memorandum, the draft NSTF Handbook, and the ISEF rules.

I. Fair Features

1. **TUKLAS-** A STEM research competition that provides opportunities for Junior and Senior High School learners to showcase their research projects based on their field of interest and/or real-world problems, issues, and concerns.
2. **STEM INNOVATION EXPO -** A STEM Innovation competition that aims to recognize the most creative and market-viable project addressing major issues in food safety, water conservation, renewable energy, cyber security, road safety, health, disaster mitigation, agriculture, and environment.
3. **STEM ACADEMY -** A conference designed to provide the participants with learning opportunities and experiences through various talks promoting innovation, creativity, and excellence in the fields of STEM.
4. **AGHAM BAYANIHAN -** A public community exhibition of partners in STEM Research and Innovation showcasing their latest innovative products, technologies, and services offered to the different sectors of the community.
5. **BRAINIAC -** *Brainiac: Clash of the Sci-Tech Champs (Brainiac)* is an academic competition for learners in public and private schools within the National Capital Region co-organized with Our Lady of Lourdes Hospital. The aim of this competition is to support the interest of learners in Science and Technology and promote a healthier Philippines.

II. TUKLAS Categories

The STEM research competition is divided into four (4) categories that is open for **both public and private schools**. The student researchers and advisor should carefully consider which category best describes the research project. They may enter the competition as an individual or as a team.

The Research Categories under TUKLAS

Life Science

This category deals with living organisms such as plants, microorganisms, and animals including humans and their life processes. Projects that involve systematic observation, development, experimentation, and understanding of living things and biological processes belong to this category. Subcategories include *Animal Sciences, Biomedical and Health Sciences, Cellular and Molecular Biology, Microbiology, Plant Sciences, and Translational Medical Science.*

Physical Science

This category deals with the nature and properties of non-living matter, energy and systems. Projects that involve systematic observation, development, experimentation, and understanding of materials and phenomena belong to this category. Subcategories include *Astronomy, Chemistry, Earth and Environmental Sciences, Energy, Engineering Technology, Statics and Dynamics, Sustainable Materials and Design, Environmental Engineering, Materials Science, and Physics.*

Robotics and Intelligent Machines

This category deals with the design, implementation, and use of prime technologies and machine intelligence in providing a wide range of innovative solutions and advancements

across multiple disciplines to reduce reliance on human intervention. Subcategories include *Biomechanics, Cognitive Systems, Control Theory, Machine Learning, and Robot Kinematics.*

Mathematics and Computational Sciences

Mathematics deals with the measurement, properties, and relationships of quantities and sets using numbers and symbols. Subcategories include *Algebra, Analysis, Combinatorics, Graph Theory, Game Theory, Geometry and Topology, Number Theory, and Probability and Statistics.*

Computational Science deals with the development and implementation of mathematical models and simulations to understand natural systems and processes, and solve STEM problems using computers. Subcategories include *Computational Biology and Bioinformatics, Computational Chemistry, Computational Mechanics, and Theoretical, Computational and Quantum Physics.*

For this year's RSTF, aside from the main category to which it will fall**, each project shall indicate the possible subcategory under which it will compete**, based on the Regeneron International Science and Engineering Fair (ISEF) Categories and Subcategories, found in this link - https://www.societyforscience.org/isef/categories-and-subcategories/all-categories/. The selected classification shall reflect the project's primary area of inquiry and the category that most accurately describes its nature and focus.

III. Eligibility and Contest Mechanics

The competition is open to **Grades 9-12** learners who have not reached the age of 20 on or before May 1 of the current school year from both public and private high schools in the Philippines.

Learners may work **individually** or in **teams with 2-3 members** from the same school. Each learner is only allowed to submit one (1) research project in one (1) of the five (5) research categories: Life Science, Physical Science, Robotics and Intelligent Machines, Mathematics and Computational Sciences, and STEM Innovation Expo. The project should include **no more than 12 months of continuous research** and **should not include research activities performed before January of the previous school year**. For the School year 2026-2027 with the target opening of classes on July 2026 and ISEF in May 2027, research projects may be accomplished within 1 - 12 month/s starting from January 2026 to December 2026.

The **first place** winners in the Division Level will be screened by the Regional SRC and will advance to the Regional Science and Technology Fair.

IV. Mechanics/Guidelines on the Conduct of the Different Levels of Research Fairs/Competitions

The following mechanics and guidelines are from the NSTF 2025-2026 memorandum, and these can be contextualized based on the school/division.

1. School Science and Technology Fair (SSTF)

Before

1. Orientation of learners regarding the processes and guidelines in planning and conducting STEM investigations.
2. Identification of the school level Scientific Review Committee (SRC) which will evaluate project proposals, required forms, certifications/ pre-approvals, data logbooks, and research manuscripts. Orientation of SRC members regarding the national laws, safety

and ethical considerations, and the rules and regulations set by NSTF and ISEF needed to be adhered in conducting STEM research project

3. Writing of the research proposal and completion of the data logbook entries for the planning of the project.
4. Identification of the research category that best describes the project and presentation of research proposals for further revision and approval.
5. Orientation and agreements with parents/ guardians on the responsibilities of learners and supervisory adults in the specific arrangements during the research activity engagement.
6. Communication with the preselected qualified scientist/designated supervisor and Regulated Research Institution (RRI). Submission of Memorandum of Agreement/ Understanding and other documentary requirements (if applicable) to the research institution prior to experimentation.
7. Completion of the required ISEF forms and certifications/pre-approvals before experimentation
8. Conduct of the research and completion of required ISEF forms and data logbook entries for the accomplished research activities.
9. Writing of research manuscript and preparation for project display and oral defense.
10. Issuance of school memorandum regarding the conduct of SSTF which includes the mechanics, guidelines, criteria, schedule of activities, and TWG anchored on the Division, Region and National Science and Technology Fair Memorandum.
11. Signing of non-disclosure agreements with the adult sponsor, SRC and TWG members.
12. Submission of three (3) hard and digital copies of properly color-coded and sequenced (as indicated in the memorandum) manuscripts, ISEF forms, data logbook, and other entry requirements (student media release forms, project evaluation forms, medical certificate, etc.) to the TWG on or before the deadline.
13. Forwarding of submitted manuscripts to the SRC/ Board of Judges (BOJ) for project pre-evaluation guided by the attached criteria.
14. Issuance of school memorandum regarding the results of the SRC review and the list of qualifiers for the SSTF and final judging.
15. Returning of the qualified SSTF manuscripts and other entry requirements for further revisions based on the listed comments and suggestions by the SRC in the Review and Recommendation Report (RRR).
16. Final meeting of the TWG for the preparations needed for the conduct of the SSTF.
17. Online resubmission of the digital copies of manuscripts, other entry requirements and PowerPoint presentation for the STEM Congress to SSTF focal person.

During:

1. Registration of participants and submission of the three (3) hard copies of color-coded manuscripts with tags to identify the revisions done based in the RRR.
2. It is also suggested for the student researchers to be in their smart casual during the conduct of SSTF.
3. Set-up for the project display that conforms with the display and safety regulations.
4. Project Display inspection by the assigned TWGs to ensure adherence to the prescribed project display rules and guidelines
5. Conduct of the SSTF opening program and on-site judging of the entries.
6. SRC/BOJ final evaluation of the qualified research entries through the STEM Congress.
7. Deliberation of the SRC/BOJ and awarding of the Top 5 winners for the individual and team projects in each research category. Other special awards (e.g., Best Poster, Best Presenter/s, Peers' Choice Award, Best Shoutout) and sponsored honorable awards by institutions/organizations may also be given to learners and advisors.
8. Orientation of the student researchers and advisors of the Top 3 entries for the individual and team projects in each research category for further comments,

suggestions and other preparations needed as school representatives to the Division Science and Technology Fair (DSTF).
9. BOJ's decision is final and irrevocable.

After:
1. Issuance of school memorandum regarding the winners of the SSTF.
2. Final revision of the manuscripts and other entry requirements incorporating the recommendations by the SRC/BOJ.
3. Re-submission of the revised manuscripts and other entry requirements to the school SRC for final quality assurance.
4. Submission of the Entries (as agreed upon by your division) to the Division Level Science Fair Technical Working Group.
5. *Conduct of STEM cliniquing to improve learners' presentation skills and preparation* of Poster Displays

2. Division Science and Technology Fair

Before:
1. Planning and consultation meeting spearheaded by the Division Education Program Supervisors in Science and Math with the school heads, and science and mathematics department heads, coordinators/focal persons, and TWG.
2. Issuance of the division memorandum on the conduct of the DSTF aligned with the Regional and National Memorandum.
3. Identification of the division level SRC based on the criteria set by NSTF and ISEF. The division level SRC will evaluate the research manuscripts, required forms, certifications/pre-approvals, and data logbooks of the school entries to the DSTF
4. *Orientation of SRC members regarding the national laws, safety, and ethical* considerations, and the rules and regulations set by NSTF and ISEF that needs to be adhered to when conducting STEM investigations.
5. Signing of non-disclosure agreements with the SRC and TWG members.
6. *Submission of the three (3) hard and digital copies of research manuscripts* and other entry requirements of the Top 3 entries for the individual and team projects in each research category to the DSTF focal person with attached report of the conduct of SSTF and endorsement by the school head on or before deadline.
7. Forwarding of submitted manuscripts to the SRC/ BOJ for project pre-evaluation guided with the attached criteria and RRR.
8. Issuance of division memorandum regarding the results of the SRC review and the list of qualifiers for the DSTF and final judging.
9. Meeting with the learners and advisors of the unqualified projects for the discussion of the disapproval/disqualification issues and their rights for an appeal period of three (3) days. An appeal can be requested by the student researcher and advisor through the submission of a letter for reconsideration addressed to the SRC chairman explicitly stating the valid explanations to reconsider the disqualification of the entry
10. Returning of the qualified DSTF manuscripts and other entry requirements for further revisions based on the listed comments and suggestions by the SRC in the RRR.
11. Final meeting of the TWG for the preparations needed for the conduct of the DSTF.
12. Preparation of the 1-minute video presentation for the school shoutout.
13. Online resubmission of the digital copies of manuscripts, other entry requirements and PowerPoint presentation for the STEM congress to DSTF focal person with official endorsement by the school head to the division office.
14. Online pre-registration of participants (optional).

During:

1. Registration of participants and submission of the three (3) hard copies of color-coded manuscripts with tags to identify the revisions done based on the RRR.
2. It is also suggested for the student researchers to be in their formal attire during the conduct of DSTF.
3. Inspection of the Project display, whereas the TWG may require learners to make revisions in the display boards in order to adhere to the prescribed rules and regulations.
4. Conduct of the DSTF opening program and on-site judging of the entries
5. SRC/BOJ final evaluation of the qualified research entries through the STEM congress.
6. Deliberation of the SRC/BOJ and awarding of the Top 5 winners for the individual and team projects in each research category. Other special awards (e.g., Best Poster, Best Presenter/s, People's Choice Award, Peers' Choice Award, Best Shoutout) and sponsored honorable awards by institutions/organizations may also be given to learners and advisors.
7. Orientation of the student researchers and advisors of the top entries or the individual and team projects in each research category for further comments, suggestions and other preparations needed as division representatives to the Regional Science and Technology Fair (RSTF).
8. BOJ's decision is final and irrevocable.

After:

1. Issuance of division memorandum regarding the winners of the DSTF and the schedule of cliniquing/mentoring/coaching of the regional representatives to the RSTF pre-evaluation of research projects.
2. Final revision of the manuscripts and other entry requirements by incorporating the recommendations of the SRC/BOJ.
3. Improving learners' presentation skills through the conduct of mock STEM Congress.
4. Re-submission of the revised manuscripts and other entry requirements to the division SRC for the final quality assurance.

3. Regional Science and Technology Fair

Before:

1. Planning and consultation meeting spearheaded by the Regional Education Program Supervisors (REPSs) in Science and Math with the division EPSs in science and mathematics and other members of the RTWG.
2. Identification of the regional-level SRC based on the criteria set by NSTF and ISEF. The regional-level SRC will evaluate the research manuscripts, required forms, certifications/pre-approvals, and data logbooks of the division entries to the Regional Science and Technology Fair (RSTF).
3. Orientation of SRC members regarding the national laws, safety and ethical considerations, and the rules and regulations set by NSTF and ISEF that need to be adhered to when conducting STEM investigations
4. Signing of NDA with the SRC and TWG members
5. Issuance of the regional memorandum regarding the conduct of RSTF, which includes the mechanics, guidelines, criteria, schedule of activities, and TWG
6. Submission of the **soft copies** and other entry requirements of the **top/best** entries for the individual and team projects in each research category to the RSTF focal person with the attached report of the conduct of DSTF and endorsement by the school's division superintendent on or before the deadline

7. Returning of the qualified RSTF manuscripts and other entry requirements for further revisions based on the listed comments and suggestions by the SRC in the RRR
8. Final meeting of the TWG for the preparations needed for the conduct of the RSTF
9. Preparation of the 30-second video presentation for the division shoutout
10. Online resubmission of the digital copies of manuscripts, other entry requirements, and PowerPoint presentation for the STEM Congress to the RSTF focal person with official endorsement by the division office to the regional office
11. Online pre-registration of participants

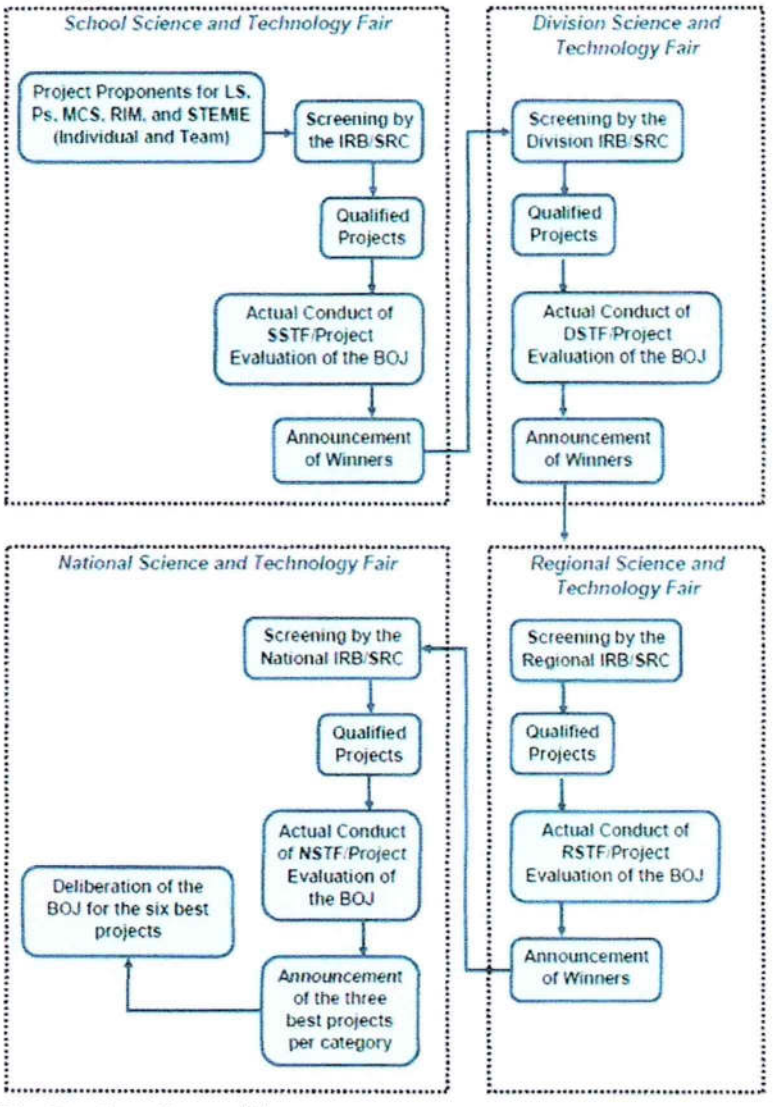
During

1. Registration of the learner researchers and advisers.
2. Submission of the division shoutout and **one (1)** soft-bound copy of color-coded manuscripts with tags to identify the revisions done based on the RRR.
3. It is suggested that the student researchers be in their formal attire during the conduct of RSTF. For the context of DepEd NCR, the attire should be:
    a. For Day 0, school uniform;
    b. For Day 1, white shirt or top/maong pants/jeans *(blazer is optional)*
    c. For Day 2 (awarding), the RSTF shirt or a shirt with the same color as the RSTF shirt.
4. Set-up for the project poster display that conforms with the display and safety regulations (see next enclosures for the project poster display)
5. Project poster display inspection, which may include the TWG requiring learners to make revisions in the display boards to adhere to the prescribed rules and regulations
6. Conduct of the RSTF opening program and on-site judging of the entries
7. BOJ final evaluation of the qualified research entries through the STEM Congress
8. Deliberation of the BOJ and awarding of the Top 5 Winners for the individual and team projects in each research category; however, only the Top 1 winner will qualify for the NSTF
9. Other special awards (e.g., Best Poster, Best Presenter/s, Best Shoutout) and sponsored honorable awards by institutions/organizations (example: Bida Lourdes Research Award) may also be given to learners and advisors
10. **BOJ's decision is final and irrevocable**
11. Orientation of the student researchers and advisors of the Top 1 entry for the individual and team projects in each research category for further comments, suggestions, and other preparations needed as regional representatives to the National Science and Technology Fair (NSTF)

After:

1. Issuance of regional memorandum regarding the winners of the RSTF and the schedule of mentoring/coaching of the regional representatives to the NSTF pre-evaluation of research projects
2. Final revision of the manuscripts and other entry requirements by incorporating the recommendations of the BOJ
3. Improving learners' presentation skills through the conduct of mock STEM Congress
4. Re-submission of the revised manuscripts and other entry requirements to the regional SRC for the final quality assurance
5. Signing of the SRC of the Form 1B for their final approval.

V. Schematic Diagram of the Flow of STF Activities



VI. The Scientific Review Committee

An SRC must consist of **a minimum of three individuals** with **at least 3 years of extensive experience and expertise in STEM research project** *and/or* **graduate degrees in STEM related disciplines**, whereas it is recommended to diversify the expertise of the committee (e.g., Life Science research SRC: agronomist, STEM professor/ educator, biomedical scientist).

The SRC must be thoroughly familiar with ethical and safety considerations, national laws, and updated rules and regulations set by NSTF and ISEF. A virtual orientation of SRC members regarding the national laws, safety and ethical considerations, and

the rules and regulations set by NSTF and ISEF needed to be adhered to in conducting STEM Research Project shall be set before the SRC Screening.

The BOJ (Board of Judges) may serve as SRC and vice versa.

Tasks of SRC

- Checks and evaluates student research project, certifications, research plan, documentation, evidence of proper supervision, and project display in compliance with NSTF and ISEF rules, applicable laws and regulations at each level of the STEM fair competitions.
- Uses the **Review and Recommendation Report** Form.
- Examines research projects for the following:
  a. Evidence of literary research
  b. Evidence of proper supervision
  c. Consistency of completion of the required information, signatures and dates in the ISEF forms and data logbook
  d. Use of accepted and appropriate research methodologies
  e. Evidence of risk assessment and appropriate literature search and attribution
  f. Search for alternatives to animal use
  g. Humane treatment of animals
  h. Documentation of substantial expansion for continuation projects
  i. Compliance with ISEF ethics statement

ISEF guidelines clearly state that certain individuals involved with a student project must not serve on the SRC or IRB that reviews that particular project. Specifically, the following are explicitly barred from participating in the review of *their own projects*:

- The Adult Sponsor
- The Qualified Scientist
- The Designated Supervisor
- The parent or relative of the student

Thus, for *any given project*, someone closely connected to it in those roles is disqualified from sitting on the review committee for that project.

If an SRC member acts as a research adviser, they **must recuse themselves** from reviewing that same project. That's the non-negotiable guardrail to safeguard the fairness and ethics of the SRC process.

Beyond that, there's no rule preventing them from serving as an adviser for *other* projects they do not review. This arrangement is acceptable, as long as their role does not compromise objectivity or violate ethical standards.

VII. Checkpoints for SRC Review

Guidelines for the filling up of the forms is given in the enclosure of the Companion Guide, found in Enclosure 19 of this Memorandum.

Type of Form	Who will fill out?	When to fill out?	When is it required?
Form 1 - Checklist for Adult Sponsor	Research Adviser	Before experimentation	Required for **all** Projects
Form 1A - Student Checklist	All student researchers	Before experimentation	Required for **all** Projects
Form 1B - Approval Form	All student researchers	Before experimentation	Required for **all** Projects

Type of Form	Who will fill out?	When to fill out?	When is it required?
Research Plan/Project Summary	All student researchers	Before experimentation	Required for **all** Projects Should be in **future tense.**
Form 2A – Student Support Disclosure Form	All student researchers	Before or after experimentation	Required for **all projects**
Form 2B - Qualified Scientist Form	Qualified Scientist/Adult Supervising	Before experimentation	Required if research involves human participants, vertebrate animals, potentially hazardous biological agents and hazardous
Form 2C - Regulated Research Institution/Industrial Setting Form	Adult supervising	After experimentation	Required if research *is conducted in a regulated research institution*, industrial setting or any work site other than home, school or field
Form 3 - Risk Assessment Form	Student Researcher/s, Qualified Scientist/Adult Supervising	Before experimentation	Required for **all** Projects
Form 4 - Human Participants Form	Student Researcher/s, Institutional Review Board* *see note below for IRB	Before experimentation	Required if research involves human participant (*If in a regulated research institution use institutional approval forms)
Form 4A - Human Informed Consent Form	Student Researcher/s, Research Participant	Before experimentation	Required if research involves human participant
Form 5A - Vertebrate Animal Form	Student Researcher/s, Scientific Review Committee, Veterinarian, Designated Supervisor/Qualified Scientist	Before experimentation	Required for all research involving vertebrate animals conducted in a school/home/field research site
Form 5B - Vertebrate Animal Form	Student Researcher/s, Qualified Scientist	Before experimentation	Required for all research involving vertebrate animals in a regulated research institution
Form 6A - Potentially Hazardous Biological Agents Risk Assessment Form	Student Researcher, Qualified Scientist/Designat	Before experimentation	Required for research involving microorganisms, rDNA, fresh/frozen tissue

Type of Form	Who will fill out?	When to fill out?	When is it required?
	ed Supervisor, Scientific Review Committee		(including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products, and body fluids
Form 6B - Human and Vertebrate Animal Tissue	Student Researcher, Qualified Scientist/Designated Supervisor	Before experimentation	Required for research involving fresh/frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products and body fluids. If the research involves living organisms, please ensure that the proper human or animal forms are completed.
Form 7 - Continuation/Research Progression Projects Form	Student Researcher	Before experimentation	Required for projects that are a continuation/progression in the same field of study as previous project

Institutional Review Board in the context of N/R/D/SSTF

An Institutional Review Board (IRB) is a committee that must evaluate the potential physical or psychological risk of **research involving human subjects**. All proposed human research must be approved prior to experimentation. **This includes any surveys or questionnaires to be used in a project.** An IRB must consist of at least three members: a science teacher, a school administrator, and a psychologist, psychiatrist, medical doctor, physician's assistant, or registered nurse. The adult sponsor, parents, qualified scientist, or the designated supervisor overseeing a project must not serve on the IRB reviewing that project.

VIII. THE UNIFORM FORMATTING FOR RESEARCH PAPERS

A. General Provisions

In all projects, the **APA 7th Edition style** will be used.

For the formatting of the research paper, the following font styles and sizes shall be used for uniformity, except for Mathematics Researches that uses LaTeX.

- **Paper Size:** A4 (210mm x 297mm)
- **Margins:** 1 inch (2.54 cm) on all sides
- **Font:** Arial, size 12 (recommended)
- **Line Spacing:** Double-spaced (2.0)
- **Alignment:** Left-aligned for text, justified for body paragraphs
- **Indentation:** 0.5 inch (1.27 cm) for the first line of each paragraph

- **Page Numbers:** In the top-right corner, starting on the title page. There should be NO markings in the headers and footers except the page number.

Title Page

- **Title:** Centered, bold, and in title case (e.g., **The Effect of Organic Fertilizers on Tomato Growth)**. Avoid abbreviations and unnecessary capitalization.
- **Information:** Below the title, include the following in separate lines (centered):
  - Your project code (example: PST-DO16)
  - The words: Presented to the Members of the Scientific Review Committee and Board of Judges of the Regional Science and Technology Fair (Year)
  - Name of student researchers
  - Name of research adviser
  - Name of consultant/s, if any

Table of Contents

Sections: Include all major sections with corresponding page numbers. Example:

- Abstract
- Introduction
- Methodology
- Results and Discussion
- Conclusion and Recommendations
- References
- Appendices

Format: Aligned left, double-spaced, with page numbers right-aligned.

Abstract

The abstract should be 250 words or less. Do not discuss specific aspects of the research in great detail, including experimental procedures and statistical methods. Any information that is unnecessary to include in a brief explanation should be saved for the written research paper or the project exhibit board.

If the project is a continuation from a previous year, the abstract should only summarize the current year's work . If it is necessary to mention supporting research from previous year(s) , it must be minimal.

If the abstract text includes special characters, such as mathematical symbols, which can't be translated electronically, spell out the symbol.

Do not include acknowledgements in the abstract. There should be no references to mentors, institutional facilities, and awards or patents received.

Main Research Paper

General Formatting

- **Headings and Subheadings:** Use bold, centered headings for each major section (e.g., Introduction, Methodology). Subheadings (e.g., Research Design, Data Collection) should be bold and left-aligned.
- **Paragraph Structure:** Each paragraph should introduce one main idea. Avoid lengthy paragraphs that discuss multiple concepts. Ensure smooth transitions between sections.
- **Tense:**
  - **Past tense** is typically used for the Methodology (e.g., "The experiment was conducted...") and Results sections (e.g., "Data were analyzed...").
  - **Present tense** may be used for background information and general discussion (e.g., "This research suggests...").

- **Voice:** Write in the third person and avoid personal pronouns (e.g., "The researcher" instead of "I" or "we").
- **Acronyms/Abbreviations:** Define the first use of any acronym or abbreviation, followed by the acronym in parentheses. Example: Department of Science and Technology (DOST)

Content

- **Clarity:** Use clear and concise language to explain each section. Avoid unnecessary jargon. Scientific papers should aim for precision and accuracy in the description of the research process and results.
- **Logical Flow:** Ensure that each section follows logically from the previous one. For example, the introduction should lead smoothly into the methodology, which should naturally segue into the results and discussion.
- **Evidence and Support:** Back up claims with data and references to the literature. Use **in-text citations following APA 7th edition style** whenever quoting, paraphrasing, or referring to another source.

Tables, Figures, and Data Presentation

- **Placement:** Place tables and figures as close as possible to their first mention in the text. Each table and figure should be numbered (e.g., Table 1, Figure 1) and include a descriptive title or caption.
- **Labels:** Ensure that all tables, graphs, and figures are clearly labeled, with units of measurement specified where appropriate.
- **Textual Explanation:** Always provide a brief description or discussion of the data presented in the table or figure. Explain the relevance of the data in the context of your research findings.

Examples for Tables and Figures following the APA 7th Edition:

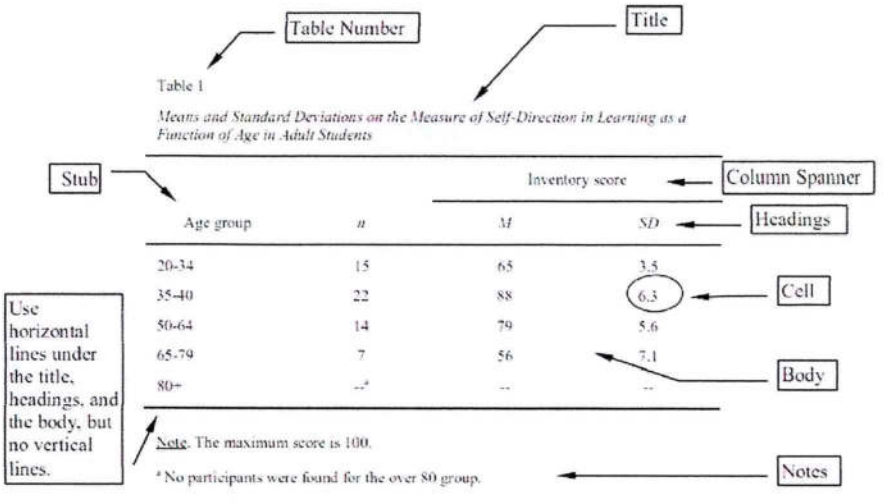
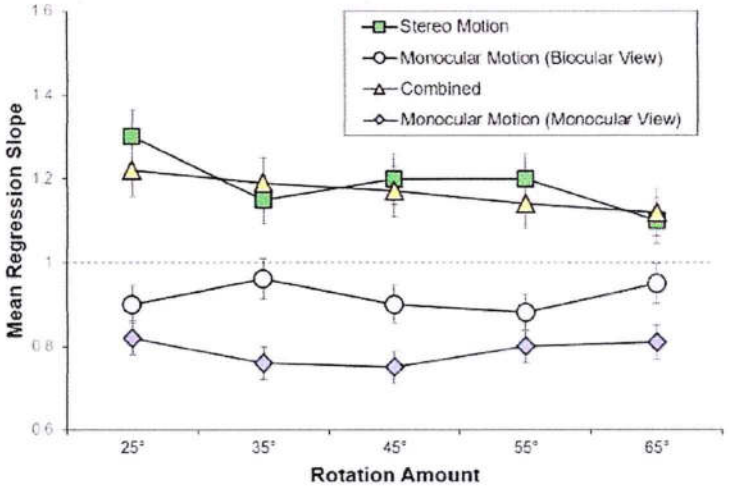


Figure 2
Mean Regression Slopes in Experiment 1



Note. Mean regression slopes in Experiment 1 are shown for the stereo motion, biocularly viewed monocular motion, combined, and monocularly viewed monocular motion conditions, plotted by rotation amount. Error bars represent standard errors. From "Large Continuous Perspective Change With Noncoplanar Points Enables Accurate Slant Perception," by X. M. Wang, M. Lind, and G. P. Bingham, 2018, *Journal of Experimental Psychology: Human Perception and Performance*, *44*(10), p. 1513 (https://doi.org/10.1037/xhp0000553). Copyright 2018 by the American Psychological Association.

Citations and Sources

- **In-Text Citations:** Follow APA 7th edition for all citations. Provide author(s) and year of publication when referring to another study or source (e.g., Smith, 2020).
- **Paraphrasing:** When paraphrasing, ensure that the original meaning is retained, and credit is given to the original author.
- **Direct Quotations:** Use sparingly. When quoting directly, include the page number in the citation (e.g., "Smith, 2020, p. 15").

References

- **Heading:** Centered and bold
- **Style:** Use APA 7th edition formatting for references.
- **Format:** List all references in alphabetical order by the authors' last names. Double-space and use a hanging indent for each entry.
    - **Book Example:** Lastname, F. M. (Year). *Title of the book*. Publisher.
    - **Journal Article Example:** Lastname, F. M., & Lastname, F. M. (Year). Title of the article. *Journal Name*, *Volume*(Issue), pages.
    - **Website Example:** Lastname, F. M. (Year, Month Date). Title of the page. *Website Name*. URL

Appendices

- **Heading:** Centered and bold
- **Content:** Include supplementary materials such as raw data, experimental data, additional photos, or additional graphs. Label each appendix as "Appendix A," "Appendix B," etc.
- **Format:** Each appendix starts on a new page.

B. Specific Provisions for Each Type of Research Project

I. For TUKLAS (Life Science, Physical Science, Robotics and Intelligent Machines, and Mathematics and Computational Sciences, specially Mathematical Modelling)

The IMRADC Format or the journal type format is to be used for the main research paper.

INTRODUCTION - What relevant background information supports your research problem/ questions?

- Explain what is known or has already been done in your research area. Include a brief review of relevant literature. If this is a continuation project, a brief summary of your prior research is appropriate here. Be sure to distinguish your previous work from this year's project.
- Include a brief description on how your project will address an issue, concern or problem. Explain why this research is important and any societal impact of your research.
- It must present the **(1) background of the study, (2) hypothesis and statement of the problem, (3) objectives, (4) significance and (5) limitations of the study** but not in subsections.

METHODS – What procedures were carried out for the experimentation?

- Explain in detail what you did. What data did you collect and how did you collect those data? Discuss your control group and the variables you tested.
- Discuss your control group, the variables you tested, and the statistical treatment used. Handling and disposal of wastes may be included if necessary.
- DO NOT include a list of materials.
- Subsections can be used (usually 1 short paragraph per subsection). It should provide enough details so that others can repeat the experiments following the methods written in the research paper; however, conciseness should be maintained.
- Official title of international/established procedures or tests used in the experiments can be written instead of describing its detailed steps (eg. Retting Process, Resazzurin Test, ASTM #); however, modifications for these international/established procedures or tests must be indicated
- Include photographs, lay-outs, schematic diagrams or drawings especially for inventions and new products.

RESULTS - What were the result(s) of your project?

- Include tables and figures which illustrate your data.
- Include relevant statistical analysis of the data.
- It includes all data gathered from the experiments which can be presented through tables, graphs, figures, etc.
- Appropriate data presentation must be observed. (eg. table vs. graph, bar graph vs. line graph)
- Tables, graphs, figures, etc. should EACH have their respective captions. A good caption must have a Table/Graph/Figure Number and a short description.
- Captions for tables must be placed on top of the table. While those for figures, graphs, diagrams, etc should be placed under them.
- Each table, graph, figure, etc may be accompanied with short descriptions on the trends derived from data analysis conducted
- Subsections may be used especially if multiple distinct tests were conducted (eg. Results from Test No. 1, Results from Test No.2)

- This part of the research paper may begin with: *This study determined the _____ as presented with the following tables, graphs and figures.*
- No discussions should be presented in this part of the research paper; more than 90% of this part shows only tables, graphs, figures, etc.

DISCUSSION - What is your interpretation of these results?

- This part of the research paper should be treated as the "soul" of the research paper and not just as an accessory part.
- Most of the related literatures are integrated in this part and not in the Introduction.
- What do these results mean? Compare your results with theories, published data, commonly held beliefs, and expected results.
- Discuss possible errors. Did any questions or problems arise that you were not expecting? How did the data vary between repeated observations of similar events? How were results affected by uncontrolled events?
- This part of the research paper usually answers the following questions:
    - What are the implications of the results and trends derived from data analysis conducted?
    - What are and how did these factors cause such results and trends?
    - What are the other related research that agree with such results and trends? (If any, indicate how this research varied from the research conducted especially in terms of materials and methods used)
    - What are established scientific knowledge (eg. science laws, basic facts) that can explain or justify such results and trends?
    - What are other related research and/or scientific knowledge that contradict such results and trends? And what are the possible causes of these contradictions?
    - What are and how did these possible errors (eg. unwanted factors) affect such results and trends?

CONCLUSIONS - What conclusions did you reach?

- It should not generalize and should present only conclusion based on the results and trends discussed. Eventually, it should answer the objectives presented in the introduction.
- What do these results mean in the context of the literature review and other work being done in your research area? How do the results address your research question?
- Do your results support your hypothesis/hypotheses? What application(s) do you see for your work?

RECOMMENDATION - It presents what else can be done to improve the research, to widen the knowledge about this research topic, and other variables that can be tested in relation to the research (other researchers of the same interest will usually read this part to conceptualize their own research topic).

For Mathematics and Computational Sciences, you may enrich the IMRADC by the following:

1 INTRODUCTION - What is your research question?

- Explain what is known or has already been done in your research area. Include a brief review of relevant literature.
- If this is a continuation project, a brief summary of your prior work is appropriate here. Be sure to distinguish your previous work from this year's project.

2 FRAMEWORK – What is your framework?

- Introduce the concepts and notation needed to specify your research question, methods, and results precisely.
- Define relevant terms, and explain prior/ background results. (Novel concepts developed as part of your project can be presented here or in Section 4, as appropriate.)

3 FINDINGS – What are your findings and supporting arguments?

- What did you discover and/or prove?
- Describe your result(s) in detail. If possible, provide both formal and intuitive/verbal explanations of each major finding. Describe your methods in general terms.
- Present rigorous proofs of the theory results – or, if the arguments are long, give sketches of the proofs that explain the main ideas.
- For numerical/statistical results, include tables and figures that illustrate your data. Include relevant statistical analysis. Were any of your results statistically significant? How do you know this?

4 CONCLUSIONS - What is your assessment of your findings?

- How do the results address your research question?
- And how have you advanced your readers' understanding relative to what is already known?
- Discuss possible limitations. Did any questions or problems arise that you were not expecting?
- What challenges do you foresee in extending your results further? What application(s), if any, do you see for your work?

5 REFERENCES – What are your sources?

- This section should not exceed one page.
- Limit your list to the most important references. List the references/documentation used which were not of your own creation (i.e., books, journal articles).

You may also include the following to enrich your paper:

1. Definitions

- Clarify key mathematical terms or symbols used.
  Example: "A graph is *planar* if it can be drawn on a plane without edges crossing."

2. Lemmas

- Supporting results used to prove a larger result (like "mini-theorems").
- Often step-stones to the main theorem.
  Example: *Lemma 1: Every tree with n vertices has exactly n−1 edges.*

3. Propositions

- Statements that are important but not as "big" as theorems.
- Can stand on their own but are often used in building towards a theorem.

4. Theorems

- The central results of the project.
- Should be formally stated and rigorously proven.
  Example: *Theorem: Every finite group of prime order is cyclic*

5. Proofs

- Logical justification of lemmas, propositions, and theorems.
- Methods vary: direct proof, proof by contradiction, induction, construction, etc.
- Often the "heart" of the project.

6. Corollaries

- Results that follow easily from a theorem.
  Example: From the group theorem above: *Corollary: Every group of order 7 is cyclic.*

7. Conjectures (Optional)

- Educated guesses or generalizations not yet proven.
- Important especially for student investigations, since the process of forming conjectures is part of "doing mathematics."

8. Examples & Counterexamples

- Examples: Show how a theorem or method works in practice.
  Counterexamples: Show limitations of conjectures or theorems.

II. Format for AGLITEKNO (STEMIE)

Title Page and Table of Contents: The title page and table of contents allow the reader to follow the organization of the paper quickly.

Introduction

1. Features and Specifications – This describes the details of your invention.
2. Market Trends and Opportunities – This part of the report must include three items: what inspired you to develop this invention, an explanation of what problem your invention will solve, and provide supporting details that your invention does not exist yet. Explain what products are already on the market that are somewhat like your invention and describe how yours differs.

Materials and Methods

Describe in detail how you made your invention. Explain what materials were used and how you put them together to make your invention. Your report should be detailed enough so that someone would be able to repeat the steps and make your invention. Directions on how to use the invention are also necessary here. You must include a detailed drawing(s) of your invention.

Results and Discussion

This is the essence of your paper. Compare your results with theoretical values, published data, literature and related studies, commonly held beliefs, and/or expected results. Include a discussion of possible errors, statistics, graphs, pages with your raw collected data, etc. How did the data vary between repeated observations of similar events? How were your results affected by uncontrolled events? What would you do differently if you repeated this project? What other experiments should be conducted?

Conclusion

This discusses the potential applications, possible customer benefits, and the impact of the innovation in solving problems and issues of today and tomorrow.

Acknowledgments

This part gives credit to those who have assisted you, including individuals, businesses, and educational or research institutions.

References/Bibliography

Your reference list should be written based on the APA (American Psychological Association) style formatting and citation.

Patent Search Report

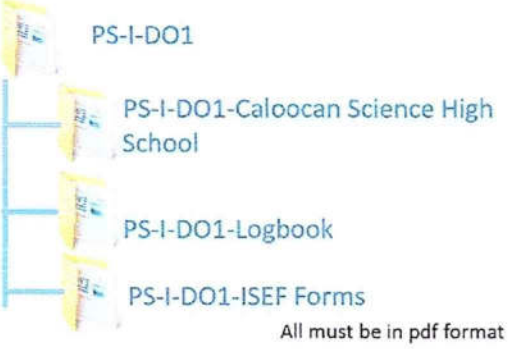
To enrich the AGLITEKNO paper, each research paper is encouraged to attach their patent search report at the end of the paper.

PROJECT LABELLING AND CODING

The following Division Coding shall be used for all **soft and hard copies.**

Division Code	Division	Division Code	Division
01	Caloocan City	09	Navotas City
02	Las Pinas City	10	Paranaque City
03	Makati City	11	Pasay City
04	Malabon City	12	Pasig City
05	Mandaluyong City	13	Quezon City
06	Manila City	14	San Juan City
07	Marikina City	15	Taguig City and Pateros
08	Muntinlupa City	16	Valenzuela City

File name convention



All must be in pdf format

Color coding for the projects (hard copy)

CODE	COLOR CODING
LS – I	**GREEN**
LS – T	**YELLOW**
PS – I	**BLUE**
PS – T	**ORANGE**
RM – I	**PINK**
RM -T	**BROWN**
MCS – I	**RED**
MCS - T	**PURPLE**
SIE – I	**BLACK**
SIE – T	**WHITE**

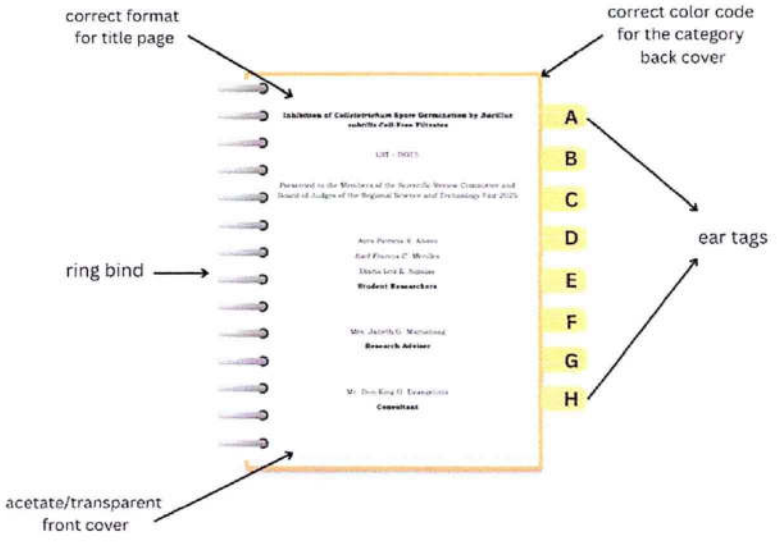
HARD COPY SUBMISSION AND ARRANGEMENT

The following are the forms and manuscript to be submitted in all levels of the competition. The **one (1) printed copy** to be submitted should have ear tags and should be arranged accordingly to the list provided below.

Sample Hardcopy for ALL categories:

IMPORTANT:

Only the photocopy of the original forms and documents shall be passed in ring bind. Keep your originals.



All copies must be placed in the correct cover color of their category (back), transparent acetate cover (front), in RING BIND and **ARRANGED ACCORDING TO THE LIST BELOW.**

Printed - For ALL CATEGORIES except SIE:

Detached from the ring bind, clustered in paper clip:

- (1) Blank SRC Form (for TUKLAS categories)
- (3) Blank Project Evaluation Form for the BOJs (for TUKLAS categories)

Included in the ring bind:

A. Title Page (see format above)
B. ISEF FORMS REQUIRED for all the projects
C. ADDITIONAL FORMS depending on the type of research (e.g. involving human, vertebrae animals, hazardous chemicals, etc.) – Check the applicability of each form. If the form is not needed in the research, do not attach it anymore.
D. Manuscript (Include the Title Page, Abstract, Main Body, and References) – (See Style Book)
E. Copy of Logbook
F. SRC Forms (complete and with signature of SRC from the previous STF levels)
G. Project Evaluation Form (complete and with signature of BOJ from the previous STF levels)
H. Copy of Plagiarism Scan Report (any plagiarism checker will do)

Printed - For Innovation Projects (STEMIE-I and T):

Detached from the ring bind, clustered in paper clip:

- (3) Blank Innovation Evaluation Form (for STEMIE category)

Included in the ring bind:

A. **Abstract (Maximum of 250 words)**
B. **STEMIE Research Paper** (Include the Title Page, Main Body, and References) – **(See Style Book)**
C. **Photocopy of Logbook**
D. **Innovation Expo Screening Form (complete and with signatures of Innov Screening Committee from the previous STF levels)**
E. **STEMIE Evaluation Form (complete and with signature of BOJ from the previous STF levels)**
F. **Simple Patent Search Report/ Utilization of Patent Information**
   The patent search report summarizes the findings of a search for existing documents (known as "prior art") that could affect an invention's patentability. This is a criterion in the STEMIE Screening Form. If you have an ongoing application for patent in IPOPHL, please include in this part as well the copy of the application. This is a criterion in the STEMIE Evaluation Form.
G. **Copy of Plagiarism Scan Report (any plagiarism checker will do)**

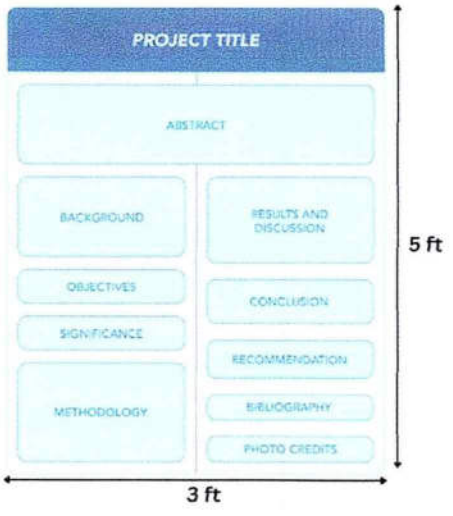
IX. Project Poster Display Guidelines

The project display using **tarpaulin** summarizes the research project and must focus on the proponent's work for this year's study, and if applicable, with only minimal reference to previous research. **The size of the project size display board is 3 ft x 5 ft. Each entry should have their own tarpaulin stand.**

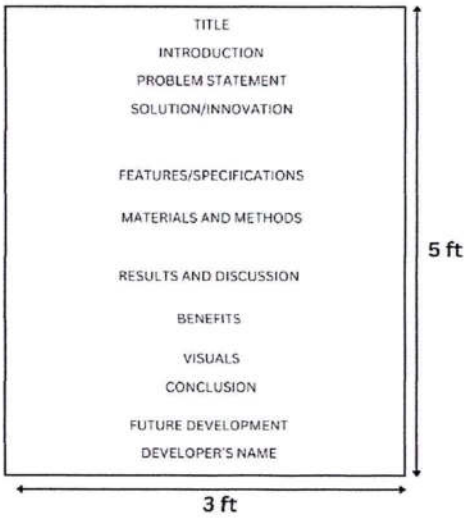
The safety regulations that must adhere to or should be consistent with the guidelines set by the International Science and Engineering Fair (ISEF).

The tarpaulin should not include the name of the school, or its logo. The student researchers may layout the project poster display in the way that they deem is effective in communicating their research.

The criteria for judging for the project poster display guidelines is stipulated in Enclosure 6.



For TUKLAS Categories



For AGLITEKNO Categories

For the list of display and safety rules for the RSTF, please refer to the ISEF website: https://www.societyforscience.org/isef/international-rules/display-safety-rules/

X. Guidelines for Oral Defense/Presentation/Research Congress

Purpose of the Oral Defense
The oral defense allows students to:

- Communicate their research clearly and professionally.
- Demonstrate mastery of their topic, methodology, and findings.
- Defend the validity of their work before a panel of experts.
- Show integrity in presenting authentic and verifiable work.

Presentation Structure

- **Presentation Time:** Maximum of **5 minutes**
- **Flexibility:** Students may choose their own structure (e.g., Introduction–Methodology–Findings–Conclusion, or Problem–Approach–Key Results–Implications) as long as it:
  - Communicates the research clearly
  - Highlights originality and contribution
  - Fits within the 5-minute limit

Visual Aids / Slide Guidelines

- **Slides are required** for all presentations.
- **Submission Requirement:**
  - Slides must be submitted on **Day 0 of the Fair**, together with:
    - Hard copies of the research paper
    - Other required documents (logbook, forms, etc.)
- **Format & Content:**
  - Must be clear, concise, and readable.
  - Focus on **key points, visuals, graphs, or figures**, not full text.
  - Avoid distracting animations or cluttered design.
  - Proper citations must appear on slides where applicable.

Question-and-Answer (Q&A) Portion

- **Duration: 10 minutes** following the presentation.
- Judges may ask questions on **any part of the research**.
- Students must:
  - Answer directly, clearly, and confidently.
  - Show consistency with the submitted research paper and logbook.
  - Acknowledge limitations honestly when necessary.

ENCLOSURE 2: CONDUCT OF BRAINIAC DIVISION LEVEL

Brainiac: Clash of the Sci-Tech Champs (Brainiac) is an academic competition for high school leamers in public and private schools within the National Capital Region. The aim of this competition is to support the interest of learners in Science and Technology and promote a healthier Philippines.

It is committed to increasing leamers' interest in Science, Mathematics, Research, and Robotics. Brainiac is Lourdes Hospital's commitment to action. It is an invitation for learners to explore Science and Technology and pursue their aspirations, a challenge to mentors and education providers to champion education and be active participants in building a more stable healthcare systcm, and finally, support to our government's call to action in building the capacities and capabilities ofleamers through various modalities.

OBJECTIVES

Brainiac aims to:
a. Enrich the Science, Mathernatics, Research, and Robotics competencies of leamers in high school in both private and public schools within the National Capital Region;
b. Encourage learners to strive for excellence in Science, Mathematics, Research, and Robotics;
c. Promote inter-division interaction to expose the leamers to best practices and develop values of perseverance, honesty, teamwork, and sportsmanship; and
d. Reward the top learners to boost their desire to excel in Science and Technology.

In sum, all of these are geared towards improving the quality of education in Science and Technology.

BRAINIAC YEAR 5

Now on its 5th year, Brainiac is expanding its reach with the inclusion of Grade School participants in the Quiz Bowl.

Quiz Bowl - The Quiz Bowl is a scholastic tournament where schools from NCR face off in a series of qualifiers leading up ro the finals. The coverage is aligned with the Most Essential Leaming Competencies (MELCs) and includes the following subjects:

- Elementary and Junior High School: Science and Mathematics
- Senior High School: Science, Mathernatics, and Research

The division level competition will be a **written type 60-item multiple choice examination.** The Top 5 schools of each SDO shall qualify for the regional finals on the 3rd Day of RSTF. The questions shall be provided by Our Lady of Lourdes Hospital. Medals and certificates shall be provided as well by OLLH.

The specific guidelines for the regional level competition shall be released in a subsequent issuance. Other guidelines for the other events of Brainiac that are not covered by RSTF shall be released in another regional letter.

ENCLOSURE 3: FORMATS FOR SUBMISSION

A. Report on the Conduct of STF

The Division Science Supervisors/Coordinators are requested to submit to Curriculum and Learning Management Division (CLMD) the reports of the conduct of Division Science and Technology Fair on or before **October 16, 2026,** through a link to be given a week before the submission deadline. **The schools participating should submit to their respective divisions their report of the conduct as well.**

The Report of the **Conduct of the Division Science and Technology Fair** shall include the following:

1. Title
2. Table of Contents
3. Introduction/Rationale
4. Detailed Information
   - General information
   - SRC Deliberation (include the results, findings and recommendations)
   - Program of Activities (day-to-day activities)
   - List of Entries (include a brief profile of the research adviser of each entry)
   - List of Winners (Research & Innovation Congress)
   - Trend Analysis (results from 3 consecutive years)
   - Financial Report
5. Conclusions
6. Recommendations
7. Appendix

Included in the report of conduct of the DSTF is the report on the data of all the SIP entries during the Division Fair. This should be submitted as an **Excel spreadsheet**.

Example Format:

No	First Name	Middle Name	Last Name	Grade	High School	Gender	Team/Individual	Team Code	Research Adviser
1	Don King	O	Evangelista	12	++Navotas National Science HS	M	Individual	PS – I – 001	Russell P. Samson
2	Diana Lou	E	Sipalay	12	++Caloocan Science HS	F	Individual	PS – I – 002	Angelo Cabic
3	Janeth	F	Mamansag	12		F	Team	PS – T – 001	
4	Virgilio	D	Alcayde	12		M	Team	PS – T – 001	
5	Guiller	P	Belen	12	++Taguig Science High School	M	Team	PS – T - 001	Micah G. Pacheco

Summary of Data

Data	Total	Data	Total
Number of Female		Number of RIM Projects	
Number of Male		Number of MCS Projects	
Number of Participating Schools		Grade 7 Participants	
Number of Participating Private Schools		Grade 8 Participants	
Number of Participating SPSTEM Schools		Grade 9 Participants	
Number of Participating SPSTEM Male Students		Grade 10 Participants	
Number of Participating SPSTEM Female Students		Grade 11 Participants	
Number of Individual Projects		Grade 12 Participants	
Number of Team Projects		Number of Participating Teachers	
Number of Life Science Projects			
Number of Physical Science Projects			

- Include all the schools that participated in your Division STF
- Insert the following symbols before the name of the school classified as:
  - + STE Program
  - ++ Legislated Science HS
  - * Regional Science HS
  - ** Philippine Science HS

B. Official List of Participants

The official list of participants shall be together with the endorsment signed by the SDS to be submitted. Submit this together with pictures of the researchers with the file name: LAST NAME_FIRST NAME in the online link.

Category	Name of Researchers (Last Name, First Name, Middle Initial)	Name of Research Adviser	Title of Research	School	School Principal

C. Individual Learners Media Release Form

I, the undersigned, hereby grant the Department of Education - NCR Regional Science and Technology Fair the right to record, film, photograph, audiotape, or videotape of me, my work, and performances.

I also grant to the right to edit, use, and reuse said products for nonprofit purposes including use in print, on the internet, and all other forms of media. I also hereby release the Department of Education and its and employees from all claims, demands, and liabilities whatsoever in connection with the above.

I certify that I have read the Media Consent and Release Form and fully understand its terms and conditions.

Agreed and accepted by
Signature of Learner :_____
Date: _____
Address of Learner: _____

Parental Consent:

I certify that I am the parent or guardian of, _____, a minor under the age of eighteen years. I hereby agree to assume legal responsibility of his/her authorizations referred to in this Form.

_____
Parent/Guardian Signature Over Printed Name:

Address: _____
Date: _____

ENCLOSURE 4: TERMS OF REFERENCE AND NDA

Enclosure 4.1 TOR and NDA for BOJ

I, _____, hereby acknowledge and agree to the following provisions as **a judge** in the (D/R)STF:

- I commit to adhering to all rules, regulations, and guidelines set forth by the (D/R)STF.
- I affirm that I have not previously served as a scientific research committee member from SSTF to DSTF nor a judge at any level of the **DepEd Science and Technology Fair SY _____.**
- I am not affiliated with any participating learner, teacher, research adviser, supervisor, or DepEd personnel in the NSTF. This includes any personal or professional relationships that could compromise impartiality.
- I will disclose any potential conflicts of interest prior to my participation as a judge.
- I will maintain the confidentiality of all information related to the projects, participants, and judging process. I will not disclose any information to unauthorized persons.
- I will submit all documents, such as evaluation forms, rating sheets, and others, in the conduct of the NSTF.
- I will submit pertinent documents and information required for the processing of the payment of my honorarium within a week after accepting the invitation.
- I commit to maintaining a professional demeanor throughout the fair. I will treat all participants, fellow judges, and staff with unwavering respect and impartiality.
- I will review and evaluate each project objectively, without any bias, and solely based on the project's merits according to the established criteria.
- I will ensure my availability to attend on-site on the designated day(s) for the evaluation process and deliberation of winners.
- The **Division/Regional Technical Working Group (D/RTWG)** reserves the right to dismiss my participation as a judge in the D/RSTF if I am found to have violated any of the foregoing conditions.
- I acknowledge that the decisions made by the D/RTWG are final and binding. I agree to adhere to their rulings and directives.

I hereby affirm that I have read and understood the terms and conditions set forth herein and agree to abide by them.

_____
Signature over printed name

Date: _____
Type of valid ID presented: _____
ID number: _____
Email address: _____
Contact no.: _____

4.2 For Members of SRC

I, _____, hereby acknowledge and agree to the following provisions as **a SRC member** in the D/RSTF:

- I commit to adhere to all rules, regulations, and guidelines set forth by the D/RSTF, and failure to comply thereto may result in my dismissal as a scientific review committee member.
- I affirm that I have not previously served as a scientific review committee member or judge at any level of the **DepEd Science and Technology Fair SY _____.**
- I am not affiliated with any participating learner, teacher, research adviser, supervisor, or DepEd personnel in the D/RSTF. This includes any personal or professional relationships that could compromise impartiality.
- I will disclose any potential conflicts of interest prior to my participation as a judge. I understand that failing to disclose such conflicts may result in my dismissal as a judge.
- I will maintain the confidentiality of all information related to the projects, participants, and screening process. I will not disclose any information to unauthorized persons.
- I will submit all necessary documents such as evaluation forms, rating sheets, and other pertinent documents in the conduct of the D/RSTF.
- I commit to maintaining a professional demeanor throughout the fair. I will treat all participants, fellow SRC members, and staff with unwavering respect and impartiality.
- I will review and evaluate each project objectively, without any bias, and solely based on the project's merits according to the established criteria.
- The **Division/Regional Technical Working Group (D/RTWG)** reserves the right to dismiss my participation as a scientific research committee member in the D/RSTF if I am found to have violated any of the foregoing conditions.
- I acknowledge that the decisions made by the D/RTWG are final and binding. I agree to adhere to their rulings and directives.

I hereby affirm that I have read and understood the terms and conditions set forth herein and agree to abide by them.

_____
Signature over printed name
Date: _____
Type of valid ID presented: _____
ID number: _____
Email address: _____
Contact no.: _____

ENCLOSURE 5: REVIEW AND RECOMMENDATION REPORT

SCIENTIFIC REVIEW COMMITTEE

REVIEW AND RECOMMENDATION REPORT

PLEASE CHECK THE LEVEL:
( ) REGIONAL SCIENCE AND TECHNOLOGY FAIR 2025
( ) DIVISION SCIENCE AND TECHNOLOGY FAIR 2025
( ) SCHOOL SCIENCE AND TECHNOLOGY FAIR 2025

Project Title: _____

Project Code: _____

Fair Division: [ ] Life
[ ] Physical
[ ] Robotics and Intelligent Machine
[ ] Math and Computational Sciences

Category: [ ] Individual [ ] Team

Instruction: Please put a check [√] in the appropriate column and if necessary, write recommendations in the space provided.

PART 1: REQUIRED FORMS FOR ALL RESEARCHES	Complete	Incomplete	Recommendations
1. **Checklist for Adult Sponsor** (1). Is it accomplished and signed?			
2. **Student Checklist 1A.** Is it accomplished?			
If answer to item 5 is Research Institution or Other, must also have Form IC (See Part II, item 6 below)			
If answer to item 9 is YES, must also have Form 7 (See Part II, item 13 below)			
3. **Research Plan (**Attachment to item 2, above). Does it include the following:			
A. RATIONALE. Does it include a brief synopsis of background that supports the research problem and explains why the research is important scientifically? If applicable, does it explain the societal impact of the research?			
B. HYPOTHESIS (ES), RESEARCH QUESTION(S), ENGINEERING GOAL(S), EXPECTED OUTCOMES. Is this based on RATIONALE?			
C. RESEARCH METHODS AND CONCLUSIONS			
a. Procedures. i. Does it show all procedures and experimental designs, including methods for data collection? ii. There should be NO inclusion of work of mentor or others. iii. Parameters should NOT be too strict to allow for possible changes			

b. Risk and Safety. Does it identify all potential risks and safety precautions needed?			
c. Data Analysis. i. Does it describe all procedures for data analysis? ii. Parameters should NOT be too strict to allow for possible changes			
D. BIBLIOGRAPHY. Does it have at least 5 major references? If using vertebrate animals, include 1 reference on animal care? (APA)			
Note: Items 3.E-H are needed ONLY for researches on HUMAN PARTICIPANTS, VERTEBRTE ANIMAL, POTENTIALLY HAZARDOUS BIOLOGICAL AGENTS (see attached Research Plan/Project Summary Instructions)			
E. HUMAN PARTICIPANTS RESEARCH. Does it provide for the following? a. Description b. Recruitment c. Methods d. Risk Assessment e. Protection of Privacy f. Informed Consent Process			
F. VERTEBRATE ANIMAL RESEARCH. Does it provide for the following? a. Potential ALTERNATIVES to vertebrate animal use b. Potential impact or contribution of research c. Detailed procedures d. Detail animal numbers, strain, sex, age, source, etc. e. Describe housing and oversight of daily care f. Disposition of animals at study termination			
G. POTENTIALLY HAZARDOUS BIOLOGICAL AGENTS RESEARCH. Does it provide for the following? a. Biosafety Level Assessment & BSL determination b. Source of agent, specific cell line. c. Safety precautions d. Methods of disposal			
H. HAZARDOUS CHEMICALS, ACTIVITIES & DEVICES. Does it provide for the following? a. Risk Assessment process & results b. Chemical concentrations and drug dosages c. Safety precautions and procedures to minimize risks d. Methods of disposal			
4. **Approval Form 1B** (for ALL students)			
5. **Student Support Disclosure Form** (2A)			
6. Abstract			
VERY IMPORTANT 2: See Part II, Risk Assessment (3) for 1. Studies involving protists, archaea and similar microorganisms. 2. Research using manure for composting, fuel production, or other non-culturing experiments. 3. Commercially-available color change coliform water test kits. These kits must remain sealed and must be properly disposed. 4. Studies involving decomposition of vertebrate organisms (such as in forensic projects). 5. Studies with microbial fuel cells.			
PART 2: ADDITIONAL REQUIRED FORMS	**Complete**	**Incomplete**	**Recommendations**

7. Regulated Research Institutional or Industrial Setting Form (2C). Must be completed AFTER experimentation by the adult supervising the student research conducted in a regulated research institution or any work site aside from home, school or field. Is it properly accomplished and signed by the DESIGNATED SUPERVISING ADULT?			
8. Qualified Scientist Form (2B) – for researches with human participants, vertebrate animals, potentially hazardous biological agents, DEA-controlled substances; completed and signed BEFORE start of experimentation. Is it properly accomplished and signed by the QUALIFIED SCIENTIST?			
9. Risk Assessment Form (3) – for researches using hazardous chemicals, activities or devices and microorganisms exempt from pre-approval. Must be completed BEFORE experimentation. Is it properly accomplished and signed by DESIGNATED SUPERVISING ADULT OR QUALIFIED SCIENTIST (when applicable)?			
10. Human Participants Form (4) – for researches involving human participants not at a Regulated Research Institution. Did the the DESIGNATED ADULT SUPERVISOR/INSTITUTION approve the research BEFORE experimentation?			
11. Vertebrate Animal Form (5A) – for researches involving vertebrate animals that is conducted in a school/home/field research site. A. Is it properly accomplished, approved and signed by SRC BEFORE experimentation? B. Is it properly accomplished, approved and signed by DESIGNATED VETERINARIAN BEFORE experimentation? C. Is it properly accomplished, approved and signed by DESIGNATED SUPERVISOR OR QUALIFIED SCIENTIST (as applicable) BEFORE experimentation?			
12. Vertebrate Animal Form (5B) – for researches involving vertebrate animals that is conducted at a Regulated Research Institution. A. Does it have IACUC approval BEFORE experimentation? B. Is it properly accomplished, approved and signed by a QUALIFIED SCIENTIST/PRINCIPAL INVESTIGATOR?			
13. Potentially Hazardous Biological Agents Risk Assessment Form (6A) – for researches involving microorganisms, rDNA, fresh/frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products and body fluids. A. Does it have SRC/IACUC/IBC approval BEFORE experimentation? B. Is it properly accomplished, approved and signed by a QUALIFIED or DESIGNATED SUPERVISOR BEFORE experimentation? C. Is it properly accomplished, approved and signed by the SRC BEFORE experimentation?			

D. Human Vertebrate Animal Tissue Form (6B) – for researches involving fresh/frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products and body fluids. If research involves living organisms, ensure that the proper human or animal forms are completed. All researches using any tissue listed above must also complete Form 6A. Is it properly accomplished, approved and signed by a QUALIFIED or DESIGNATED SUPERVISOR BEFORE experimentation?			
14. Continuation/Research Progression Projects Form (7) – for researches that are a continuation/progression in the same field of study as a previous research. A. This form MUST be accompanied by the PREVIOUS YEAR'S ABSTRACT and RESEARCH PLAN B. Is it properly accomplished, approved and signed by the student/s?			
PART 3: RESEARCH PAPER (See attached IMRAD)	**Complete**	**Incomplete**	**Recommendations**
1. COVER PAGE A. Is the research title present? B. Is/Are the *name/s of the student proponent's present?* C. Is/Are the appropriate persons credited? (The Research adviser and Research Consultants, if applicable MUST be present)			
2. **INTRODUCTION**. Does it outline the research question and its significance within the topic discussed, making its relevance clear to readers in a CONCISE manner?			
3. **METHOD.** Does is clearly and comprehensively provide the reader with a description of the methods used in the research?			
4. **RESULTS.** Does is clearly and comprehensively SHOW the reader what the research came up with? This should be the MAIN section of the paper.			
5. **DISCUSSION**. Does this show what the findings in "RESULTS" mean?			
6. **LIMITATIONS ON THE RESEARCH DESIGN AND MATERIAL.** Does this show knowledge and understanding of research limitations?			
7. Conclusion, Notes, Works Cited and Appendices/Bibliography A. Does the conclusion briefly and clearly analyze what the paper proposed, discusssed and concluded? B. Is there, in APA format, possible Researcher Notes, the research paper's Works Cited and possible appendices?			
PART 4: RESEARCH ABSTRACT (MAX. 250 WORDS)	**Complete**	**Incomplete**	**Recommendations**
1. Does it clearly and concisely state the PURPOSE OF THE RESEARCH?			
2. Does it clearly and concisely state the PROCEDURE/S undertaken in the RESEARCH			
3. Does it clearly and concisely state the DATA COLLECTED from the RESEARCH?			
4. Does it clearly and concisely state the CONCLUSIONS OF THE RESEARCH?			

VERY IMPORTANT: There should be NONE of the following:

a. Acknowledgements of the research institutions and/or mentors with which the student were working

b. Self-promotions and external endorsements

c. Inclusion of work or procedures done by the mentor

PART 5: RESEARCH LOGBOOK	Complete	Incomplete	Recommendations
1. Is the logbook intact and not tampered with? It should NOT be loose-leafed.			
2. Does the START DATE in the logbook match the START DATE in Student Checklist (1A)?			
3. Does the END DATE in the logbook match the END DATE in Student Checklist (1A)?			
4. Are all the entries in the logbook properly dated?			
5. Does the logbook show accurate and detailed notes and findings throughout the course of the research? Does it include data tables, and the like?			
6. Does the logbook show accurate and detailed description of procedures and processes conducted in the course of the research?			
7. Does the logbook show student notes and questions in the course of the research?			

[ ] Review Complete [ ] Review Incomplete

Decision: [ ] Approved
[ ] Conditional Approved
[ ] Disqualified due to: _____

_____
Name of SRC over Printed Name

ENCLOSURE 6: PROJECT EVALUATION FORMS

6.1 For TUKLAS

Board of Judges (BOJ)

PROJECT EVALUATION FORM

PLEASE CHECK:
( ) REGIONAL SCIENCE AND TECHNOLOGY FAIR 2025
( ) DIVISION SCIENCE AND TECHNOLOGY FAIR 2025
( ) SCHOOL SCIENCE AND TECHNOLOGY FAIR 2025

Title of Research Project : _____

School : _____

Project Category :( ) Life Science ( ) Physical Science ( ) Robotics
( ) Mathematics and Computational Science
( ) Team ( ) Individual

Category	Score
1. Creative Ability (30) *A. Does the project show creative ability and originality in the:* *a. research questions asked?* *b. approach to solving the problem?* *c. analysis of the data?* *d. interpretation of the data?* *e. use of equipment?* *f. construction or design of new equipment?* *B. Creative research should support an investigation and help a question in an original way.* *C. A creative contribution promotes an efficient and reliable method for solving a problem. When evaluating a project, it is important to distinguish between gadgettering and ingenuity.*	
2. Scientific Thought (30) *(If an engineering project, please see 2b. Engineering Goals)* *1. is the problems stated clearly and unambiguously?* *2. was the problem sufficiently limited to allow plausible attack? Good scientists can identify important problems capable of solutions.* *3. was there a procedural plan for obtaining a solution?* *4. are the variable clearly recognized and defined?* *5. if controls were necessary, did the student recognize their need and were they used correctly?* *6. are there adequate data to support the conclusions?* *7. Does the finalist/team recognize the data's limitation?* *8. Does the finalist/team understand the project's ties to related research?* *9. Does the finalist/team have an idea of what further research is warranted?* *10. Did the finalist/team cite scientific literature, or only popular literature (e.g. local newspaper, magazines)?* **B. Engineering Goals** *1. Does the project have a clear objective?*	

2. Is the objective relevant to the potential user's needs? *3. Is the solution workable? Acceptable to the potential user? Economically feasible?* *4. Could the solution be utilized successfully in design or construction of an end product?* *5.Is the solution a significant improvement over previous alternatives or application?* *6. Has the solution been tested for performance under the conditions of use?*	
3. Thoroughness (15) *1. Was the purpose carried out to completion within the scope of the original intent?* *2. How completely was the problem covered?* *3. Are the conclusions based on a single experiment or replication?* *4. How complete are the project notes?* *5. Is the finalist/team aware of other approaches or theories?* *6. How much time did the finalist or team spend on the project?* *7. Is the finalist/ team familiar with scientific literature in the studied field?* *8. Are the relevant details (including the pages and dates) of the experiment recorded in the research data logbook?*	
4. Skill (15) *1. Does the finalist/team have the required laboratory, computation, observational and design skills to obtain the supporting data?* *2. Where was the project performed (i.e. home, school laboratory, university laboratory). Did the student or team receive assistance from parents, teachers, scientists or engineers?* *3. Was the project completed under the adult supervision, or did the student/team work largely alone?* *4.Where did the equipment come from? Was it built independently by the finalist/team? Was it obtained on loan? Was it part of a laboratory where the finalist/team worked?*	
5. Clarity (10) *1. How clearly does the finalist/team discuss his/her/their project and explain the purpose, procedure, and conclusion? Watch out for memorized speeches that reflects little understanding of principles.* *2. Does the written material reflect the finalist's or team's understanding of the research?* *3. Are the important phases of the project presented in an orderly manner?* *4. How clearly is the data presented?* *5. How clearly are the results presented?* *6. How well does the project display explain the project?* *7. Was the presentation done in a forthright manner, without tricks or gadgets?* *8. Did the finalist/team perform all the project work, or did someone help?*	
TOTAL	
Signature over printed name of the members of the Board of Judges	

6.2 AGLITEKNO Screening Form

TITLE OF THE PROJECT		
INDIVIDUAL/TEAM		
PROJECT PROPONENTS		
CRITERIA	**WEIGHT**	**RATING**
ORIGINALITY AND CREATIVITY This criterion assesses the uniqueness and innovation of the project. It looks at how the research addresses a problem in a novel way or introduces creative solutions.	35%	
COMMUNITY CONNECTION & IMPACT This criterion evaluates how the innovation research benefits the community or society. It assesses the project's potential to make a positive impact and address real-world issues.	25%	
MARKET ATTRACTIVENESS This criterion examines the commercial viability of the innovation. It considers the potential market demand, scalability, and sustainability of the project.	25%	
UTILIZATION OF PATENT INFORMATION This criterion focuses on how well the project utilizes relevant patent information and avoids infringement on existing patents.	15%	
TOTAL	**100%**	
COMMENTS		

6.3 AGLITEKNO Judging Form

TITLE OF THE PROJECT		
INDIVIDUAL/TEAM		
PROJECT PROPONENTS		
CRITERIA	**WEIGHT**	**RATING**
ORIGINALITY AND CREATIVITY • The project developed a new theoretical model or framework that gives significant contribution in Science. • The project applied the use of existing technology in new and creative ways to solve scientific problems. • The project challenge conventional methodologies	35%	
COMMUNITY CONNECTION AND IMPACT • The project creates solutions to address challenges in the community such as food security, agriculture, health, environment, and energy conservation. • The project has immediate significant practical applications.	20%	
MARKET ATTRACTIVENESS • The project has strong demands from potential customers and end-users. • The project has high potential for generating substantial revenue and profitability. • The project is aligned with current and future market trends.	20%	
PROJECT PITCHING • The project provides clear articulation of the project overview, objectives, and its significance. • The project highlights scientific principles or engineering concepts used.	15%	
UTILIZATION OF PATENT INFORMATION • The project is at least applied either online or in-person for patent at the Intellectual Property Office of the Philippines (Provide a copy of application)	10%	
TOTAL	**100%**	

6.4 Project Poster Display

Project Poster Display Code: _____

CRITERIA	DESCRIPTION WITH CORRESPONDING POINTS	SCORE
LOCAL ORGANIZATION OF MATERIAL (35%) *This assesses how well the content is structured and how easily the audience can follow the information. A logical flow of information helps in understanding the project better.*	**30–35 points** Exceptional organization of information **20–29 points** Excellent flow of information but transitions can be improved **10–19 points** Some organization, but the presentation of information could be improved **1–9 points** Lack of content, structure, and coherence	
CLARITY OF VISUAL AND ADHERENCE TO THE FORMAT (30%) *This involves clear texts and well-labeled graphics. Legends can significantly enhance comprehension and engagement. The poster adheres to the prescribed format and contains all the needed information.*	**25–30 points** High-quality visuals. Graphics enhanced understanding significantly. Poster adheres to the prescribed format and contains all the needed information **17–24 points** Relevant and easy-to-understand visuals but some can be improved. Some elements do not adhere to the prescribed format and lacks at most 2 needed information **9–16 points** Visuals are somewhat clear. Most of the elements do not adhere to the prescribed format and lacks 3–4 needed information **1–8 points** Visuals are unclear or irrelevant. The poster does not adhere to the prescribed format and lacks more than 4 needed information	
SUPPORTING DOCUMENTATION DISPLAYED (10%) *This involves any relevant supplementary materials provided alongside the poster. Examples include references, data tables, or detailed figures which add depth and credibility to the presentation.*	**9–10 points** Comprehensive and robust supplementary materials which add depth and credibility to the presentation **6–8 points** Adequate number of supplementary materials that support the presentation **3–5 points** Some supplementary materials are irrelevant **1–2 points** Minimal or no supplementary materials	
INTERVIEW (25%) *The ability of the presenter to articulate and explain their project during an interview is essential. It shows their understanding and ability to communicate their work effectively.*	**22–25 points** Exceptional interview performance **15–21 points** Insightful and clear answers and proficient discussion of the project **8–14 points** Basic understanding of the project **1–7 points** Inadequate responses or lack of understanding of the project	
	TOTAL	

6.5 **On-the-Spot Poster Making**

Poster Code: _____

CRITERIA	DESCRIPTORS WITH CORRESPONDING POINTS	SCORE
CREATIVITY AND PRESENTATION (40%)		
Originality of Concept and Design	**18–20 points** Innovative and unexpected approach, demonstrating a fresh perspective **14–17 points** Creative design with some unique elements **8–13 points** Conventional design with minor creativity **1–7 points** Lack of originality; generic design	
Visual Appeal, Layout, and Organization	**9–10 points** Visually striking, balanced layout, and clear organization **6–8 points** Attractive design, but minor layout issues **3–5 points** Adequate layout, room for improvement **1–2 points** Lacks visual appeal, layout, and organization	
Effective Use of Colors, Fonts, and Graphics	**9–10 points** Harmonious color scheme, legible fonts, and relevant graphics **6–8 points** Mostly effective use of visual elements **3–5 points** Inconsistencies or poor choices of colors, fonts, and graphics **1–2 points** Clashing colors, illegible texts, or irrelevant graphics	
ORIGINALITY (30%)		
Uniqueness of Ideas and Approach	**13–15 points** Exceptionally fresh and inventive **9–12 points** Unique ideas, but not groundbreaking **4–8 points** Conventional concepts **1–3 points** Generic or copied ideas	
Avoidance of Clichés or Common Themes	**13–15 points** Completely avoids clichés **9–12 points** Mostly original points **4–8 points** Some clichés presented **1–3 points** Overly predictable or clichéd	
RELEVANCE TO THE THEME (30%)		
Alignment with the Specified Theme	**13–15 points** Clearly and creatively represents the theme **9–12 points** Relevant content, but room for improvement **4–8 points** Partially related to the theme **1–3 points** Theme is not evident	
Clear Communication of the Theme through Visuals	**13–15 points** Theme effectively conveyed through visuals **9–12 points** Mostly clear communication **4–8 points** Some ambiguity or inconsistency **1–3 points** Theme is poorly communicated	

6.6 Shoutout

Guidelines

1. Each Schools Division Office shall present one (1) shoutout not exceeding **60 seconds.**
2. The shoutout shall:
   - Introduce and proudly represent the Schools Division Office or City;
   - Highlight notable local characteristics, achievements, or identity;
   - Promote the division's commitment to STEM education, innovation, research, or scientific excellence;
   - Foster sportsmanship, unity, and enthusiasm among RSTF participants.
3. Offensive, discriminatory, political, commercial, or inappropriate content shall not be permitted.
4. Only simple handheld props that do not require stage setup may be used.
5. A deduction of 5 points shall be imposed for every 10 seconds or fraction thereof beyond the prescribed time limit.
6. The decision of the Board of Judges shall be final and irrevocable.

Criteria	Weight	Outstanding (9–10)	Very Satisfactory (7–8)	Satisfactory (5–6)	Needs Improvement (1–4)
Representation of the Schools Division Office/City	**25%**	Clearly and creatively showcases the identity, culture, notable landmarks, achievements, and unique characteristics of the Schools Division or City, creating a strong sense of pride and recognition.	Adequately highlights the identity and notable features of the Schools Division or City with minor details lacking.	Shows limited representation of the Schools Division or City. Some important aspects are missing or unclear.	Fails to effectively represent the Schools Division or City, or the message is unclear and disconnected.
Promotion of STEM Excellence	**30%**	Exceptionally demonstrates the division's commitment to STEM through meaningful references to innovation, research, scientific achievements, or STEM programs, inspiring appreciation for science and technology.	Clearly presents the division's STEM initiatives or achievements with adequate relevance.	Includes minimal or general references to STEM with limited connection to the division.	STEM concepts are absent, inaccurate, or not meaningfully integrated into the presentation.
Creativity and Originality	**20%**	Presentation is highly original, engaging, innovative, and memorable through its concept, language, choreography, or style.	Presentation demonstrates creativity with some original elements that effectively engage the audience.	Presentation shows limited creativity and relies on common or predictable ideas.	Presentation lacks originality and creativity, resulting in minimal audience engagement.
Audience Impact and Delivery	**15%**	Delivered with exceptional confidence, enthusiasm, synchronization, clarity, and stage presence, effectively capturing audience attention throughout.	Delivery is confident and engaging with only minor lapses in clarity or coordination.	Delivery is moderately engaging but lacks consistency in confidence, clarity, or energy.	Delivery lacks confidence, clarity, coordination, or audience engagement.
Organization and Time Management	**10%**	Presentation is well-organized, coherent, and completed within the prescribed time limit with excellent pacing.	Presentation is organized and completed within the time limit with only minor issues in flow.	Presentation has noticeable issues in organization or pacing but remains understandable.	Presentation is poorly organized, exceeds or falls significantly short of the time limit, or lacks a coherent flow.

ENCLOSURE # 7

Checklist for Adult Sponsor (1)

This form is required for ALL projects.
This form must be completed by the adult sponsor BEFORE experimentation.

To be completed by the Adult Sponsor in collaboration with the student researcher(s):

Student's Name(s): _____

Project Title: _____

1. ☐ I have reviewed the ISEF Rules and Guidelines, including the science fair ethics statement.
2. ☐ I have reviewed the student's completed Student Checklist (1A) and Research Plan/Project Addendum.
3. ☐ I have worked with the student and we have discussed the possible risks involved in the project.
4. ☐ The project involves one or more of the following and requires prior approval by an SRC, IRB, IACUC or IBC:
   - ☐ Humans
   - ☐ Vertebrate Animals
   - ☐ Potentially Hazardous Biological Agents
     - ☐ Microorganisms ☐ rDNA ☐ Tissues
5. ☐ Items to be completed for **ALL PROJECTS**
   - ☐ Adult Sponsor Checklist (1) ☐ Research Plan/Project Addendum ☐ Student Support Disclosure Form (2A)
   - ☐ Student Checklist (1A) ☐ Approval Form (1B)
   - ☐ Regulated Research Institutional/Industrial Setting Form (2C) (when applicable; after completed experiment)
   - ☐ Continuation/Research Progression Form (7) (when applicable)

Additional forms required if the project includes the use of one or more of the following (check all that apply):

☐ **Humans,** Including student designed inventions/prototypes. (Requires prior approval by an Institutional Review Board (IRB); see full text of the rules.)
- ☐ Human Participants Form (4) or appropriate Institutional IRB documentation
- ☐ Sample of Informed Consent Form (when applicable and/or required by the IRB)
- ☐ Qualified Scientist Form (2B) (when applicable and/or required by the IRB)

☐ **Vertebrate Animals** (Requires prior approval, see full text of the rules.)
- ☐ Vertebrate Animal Form (5A)-for projects conducted in a school/home/field research site (SRC prior approval required
- ☐ Vertebrate Animal Form (5B)-for projects conducted at a Regulated Research Institution. (Institutional Animal Care and Use Committee (IACUC) approval required prior experimentation.)
- ☐ Qualified Scientist Form (2B) (Required for all vertebrate animal projects at a regulated research site or when applicable)

☐ **Potentially Hazardous Biological Agents** (Requires prior approval by SRC, IACUC or IBC, see full text of the rules.)
- ☐ Potentially Hazardous Biological Agents Risk Assessment Form (6A)
- ☐ Human and Vertebrate Animal Tissue Form (6B)-to be completed in addition to Form 6A when project involves the use of fresh or frozen tissue, primary cell cultures, blood, blood products and body fluids.
- ☐ Qualified Scientist Form (2B) (when applicable)
- ☐ The following are exempt from prior review but require a Risk Assessment Form 3: projects involving protists, archae and similar microorganisms, for projects using manure for composting, fuel production or other non-culturing experiments, projects using color change coliform water test kits, microbial fuel cells, and projects involving decomposing vertebrate organisms.

☐ **Hazardous Chemicals, Activities and Devices**
- ☐ Risk Assessment Form (3)
- ☐ Qualified Scientist Form (2B) (as applicable, see full text of the rules)

☐ **Other**
- ☐ Risk Assessment Form (3)

☐ **I attest to the information checked above and that I have read and agree to abide by the science fair ethics statement.**

Adult Sponsor's Printed Name	Signature	Date of Review (mm/dd/yy)
Phone	Email	

Student Checklist (1A)

This form is required for ALL projects.
This form must be completed by the student(s) BEFORE experimentation.

1. a. Student/Team Leader: _____ Grade: _____

   Email: _____ Phone: _____

   b. Team Member: _____ c. Team Member: _____

2. Title of Project: _____

3. School: _____ School Phone: _____
   (if multiple schools, list of the team leader or list all schools).

   School Address: _____

   _____

4. Adult Sponsor: _____ Phone/Email: _____

5. Where will you conduct your experimentation? (check all that apply)

   ☐ Research Institution ☐ School ☐ Field ☐ Home ☐ Other: _____

6. List the name and address of all non-home and non-school work site(s), whether you worked there virtually or on-site:

   Name _____ _____

   Address _____ _____

   _____ _____

   Phone/email _____ _____

7. Does this project need SRC/IRB/IACUC or other pre-approval? ☐ Yes ☐ No Tentative start date: _____

8. This year's experimentation/data collection:

   _____ _____

   Actual Start Date: (mm/dd/yy) End Date: (mm/dd/yy)

9. Is this a continuation/progression from a previous year? ☐ Yes ☐ No
   a. If yes, attach the previous year's ☐ Abstract **and** ☐ Research Plan/Project Addendum
   b. Explain how this project is new and different from previous years on
   ☐ Continuation/Research Progression Form (7); include forms for all previous years

10. Source of Data:

    ☐ self-collected ☐ mentor collected ☐ publicly available ☐ Other

Provide a complete Research Plan/Project Addendum with this form.

Research Plan/Project Addendum

A Research Plan/Project Addendum is required for ALL projects. The plan must be written BEFORE experimentation.

1. The Research Plan is to be written prior to experimentation.
2. If changes are made during the research before competing at an affiliated fair, such changes must be added as an addendum to the original plan. Be aware that some changes may require obtaining or returning to the IRB or SRC for appropriate review and approvals before conducting that portion of the project. If there are no changes, an addendum is not required.
3. The Research Plan/Project Addendum should include the following:
   a. **RATIONALE:** Include a brief synopsis of the background that supports your research question/goal.
   b. **RESEARCH QUESTION(S), HYPOTHESIS(ES), ENGINEERING GOAL(S), EXPECTED OUTCOMES:** Include a brief synopsis of the background that supports your research question/goal.
   c. Describe the following in detail (include any required subject-specific additions to your Research Plan (listed below):
      - **List of materials:**
      - **Procedures/Methodology:** Detail all procedures and steps of the experimental design including methods for data collection, and when applicable, the source of data used. Be sure to differentiate steps to be taken by you and the steps that are to be taken by any supervising adult(s).
      - **Risk and Safety:** Identify any potential risks and describe safety precautions to be taken.
      - **Data Analysis:** Describe the procedures you will use to analyze the data/results.
   d. **ACKNOWLEDGEMENTS:** List all individuals that supported your project and the contributions that they made. If AI was used, document this support with a prompt log or an explanation of the elements of the project that involved AI support.
   e. **BIBLIOGRAPHY:** List major references (e.g. science journal articles, books, internet sites) from your literature review. Ensure that all references are properly listed and verified (The use of AI for citations is discouraged; it is known to hallucinate and produce false citations which becomes an ethical issue if you cite sources that are false or that you did not actually reference.)

Items 1–4 below are subject-specific guidelines for additional items to be included in your Research Plan/Project Addendum as applicable.

1. **Human participants research:**
   a. **Participants:** Describe age range, gender, racial/ethnic composition of participants. Identify vulnerable populations (minors, pregnant women, prisoners, mentally disabled or economically disadvantaged).
   b. **Recruitment:** Where will you find your participants? How will they be invited to participate?
   c. **Methods:** What will participants be asked to do? Will you use any surveys, questionnaires or tests? If yes and not your own, how did you obtain? Did it require permissions? If so, explain. What is the frequency and length of time involved for each subject?
   d. **Risk Assessment:** What are the risks or potential discomforts (physical, psychological, time involved, social, legal, etc.) to participants? How will you minimize risks? List any benefits to society or participants.
   e. **Protection of Privacy:** Will identifiable information (e.g., names, telephone numbers, birth dates, email addresses) be collected? Will data be confidential/anonymous? If anonymous, describe how the data will be collected. If not anonymous, what procedures are in place for safeguarding confidentiality? Where will data be stored? Who will have access to the data? What will you do with the data after the study?
   f. **Informed Consent Process:** Describe how you will inform participants about the purpose of the study, what they will be asked to do, that their participation is voluntary and they have the right to stop at any time.
2. **Vertebrate animal research:**
   a. Discuss potential ALTERNATIVES to vertebrate animal use and present justification for use of vertebrates.
   b. Explain potential impact or contribution of this research.
   c. Detail all procedures to be used, including methods used to minimize potential discomfort, distress, pain and injury to the animals and detailed chemical concentrations and drug dosages.
   d. Detail animal numbers, species, strain, sex, age, source, etc., include justification of the numbers planned.
   e. Describe housing and oversight of daily care.
   f. Discuss disposition of the animals at the end of the study.
3. **Potentially hazardous biological agents research:**
   a. Give source of the organism and describe BSL assessment process and BSL determination.
   b. Detail safety precautions and discuss methods of disposal.
4. **Hazardous chemicals, activities & devices:**
   a. Describe Risk Assessment process, supervision, safety precautions and specific methods of disposal.
   b. Safety Data Sheets must be reviewed and should be referenced but do not need to be submitted with paperwork unless required by your fair.

Approval Form (1B)

This form is required for ALL projects (one form per student).
This form must be signed by the student researcher and parent BEFORE experimentation.
The SRC will sign as appropriate for pre-approval and/or approval just before competition.

1. To Be Completed by Student and Parent

a. Student Acknowledgment:

- I understand the risks and possible dangers to me of the proposed research plan.
- I have read the ISEF Rules and Guidelines and will adhere to all International Rules when conducting this research.
- I have read and agree to uphold all aspects of the student researcher ethics statement.

Student researchers are expected to maintain the highest standards of honesty and integrity. Scientific fraud and misconduct are not condoned at any level of research or competition. Such practices include but are not limited to plagiarism, forgery, use or presentation of other researcher's work as one's own, and fabrication of data. Fraudulent projects will fail to qualify for competition in affiliated fairs and ISEF.

Student's Printed Name	Signature	Date Acknowledged (mm/dd/yy) (Must be prior to experimentation.)

b. Parent/Guardian Approval: I have read and understand the risks and possible dangers involved in the **Research Plan/Project Addendum.** I consent to my child participating in this research.

Parent/Guardian's Printed Name	Signature	Date Acknowledged (mm/dd/yy) (Must be prior to experimentation.)

2. To be completed by the local or affiliated Fair SRC

(Required for projects requiring prior SRC/IRB approval. Sign 2a or 2b as appropriate.)

a. Required for projects that need prior SRC/IRB approval BEFORE experimentation (humans, vertebrates or potentially hazardous biological agents).

The SRC/IRB has carefully studied this project's **Research Plan/Project Addendum** and all the required forms are included. My signature indicates approval of the **Research Plan/Project Addendum** before the student begins experimentation.

SRC Chair's Printed Name

Signature

Date of Approval (mm/dd/yy) (Must be prior to experimentation.)

OR

b. Required for research conducted at all Regulated Research Institutions with no prior fair SRC/IRB approval.

This project was conducted at a regulated research institution **(not home or high school, etc.)**, was reviewed and approved by the proper institutional board before experimentation and complies with the ISEF Rules. **Attach (2C) and any required institutional approvals (e.g. IACUC, IRB).**

SRC Chair's Printed Name

Signature

Date of Signature (mm/dd/yy) (May be after experimentation)

3. Final ISEF Affiliated Fair SRC Approval (Required for ALL Projects)

SRC Approval After Experimentation and Before Competition at Regional/State/National Fair

I certify that this project adheres to the approved **Research Plan/Project Addendum** and complies with all ISEF Rules.

Regional SRC Chair's Printed Name	Signature	Date of Approval (mm/dd/yy)
State/National SRC Chair's Printed Name *(where applicable)*	Signature	Date of Approval (mm/dd/yy)

Student Support Disclosure Form (2A)

This form is required for ALL projects. This form may be completed before or after experimentation.

It is important to fully disclose any support provided in the completion of a scientific research project. This disclosure provides acknowledgment and verification of the project.

To be completed by the student researcher:

Please list the person serving in each role. (Described in the Roles & Responsibilities of Students and Adults section of the Rules.) If an individual serves in multiple roles, list fully once and by name only in other roles.

1. **Adult Sponsor**			
Name	Organization/School	Email	Phone
Relationship to student:	Expertise:	Contribution to project:	Duration of support for this project:

2. **Direct Supervisor**			
Name	Organization/School	Email	Phone
Relationship to student:	Expertise:	Contribution to project:	Duration of support for this project:

3. **Qualified Scientist**			
Name	Organization/School	Email	Phone
Relationship to student:	Expertise:	Contribution to project:	Duration of support for this project:

4. **Additional Supporting Adults** (graduate students, relatives, external experts, etc.) Use additional pages as necessary.			
Name	Organization/School	Email	Phone
Relationship to student:	Expertise:	Contribution to project:	Duration of support for this project:

Paid Support Disclosure:

1. Did you or your parents pay for any support for this project? ☐ Yes ☐ No
   If yes, explain: (Indicate any fees, tuition and/or payment to any of the individuals above and/or to a program that provided any support for this project including lab space, mentorship, documentation preparation, etc.)

AI Usage Disclosure

1. Did your project involve the use of Generative AI? ☐ Yes ☐ No

   If yes, please provide an attachment with Generative AI used in your project and in what elements of your project it was used.

   b. Please provide the AI Prompt Log containing the prompts and responses from the Generative AI or AI Wrapper used. Be sure to remove any personal prompts which contain personal identifying information about yourself or others. If you do not have access to your prompt log, then please provide a summary of the prompts and responses involved in your project.

Attestation by Student Researcher:

I certify that I have presented the full truth regarding all of the support received in the completion of my research project and have not omitted pertinent information nor presented false information.

Finalist Signature: _____ **Date:** _____

Printed Name: _____

Qualified Scientist Form (2B)

This form is required for projects requiring a Qualified Scientist or Direct Supervisor.
This form must be completed by the Qualified Scientist BEFORE experimentation.

Student's Name(s) _____

Title of Project _____

To be completed by the Qualified Scientist:

Scientist Name: _____

Educational Background: _____ Degree(s): _____

Experience/Training as relates to the student's area of research:

Position/Institution: _____ Email/Phone: _____

1. Please indicate what the student project will involve:
   a. Human participants ☐ Yes ☐ No
   b. Animals ☐ Yes ☐ No
   c. Potentially hazardous biological agents (microorganisms, rDNA and tissues, including blood and blood products) ☐ Yes ☐ No
   d. Hazardous substances and devices ☐ Yes ☐ No
3. Will this study be a sub-set of a larger study? ☐ Yes ☐ No
4. Will you directly supervise the student? ☐ Yes ☐ No
5. Please describe your anticipated role in this project and the duration of your support.

6. Will you provide any data; if yes, please provide source or describe ☐ Yes ☐ No

To be completed by the Qualified Scientist:

I certify that I have reviewed and approved the Research Plan/Project Addendum prior to the start of the experimentation. If the student or Direct Supervisor is not trained in the necessary procedures, I will ensure her/his training. I will provide advice and supervision during the research. I have a working knowledge of the techniques to be used by the student in the Research Plan/Project Addendum.

Qualified Scientist's Printed Name

Signature Date of Approval (mm/dd/yy)

To be completed by the Direct Supervisor when the Qualified Scientist cannot directly supervise.

I certify that I have reviewed the Research Plan/Project Addendum and have been trained in the techniques to be used by this student, and I will provide direct supervision.

Direct Supervisor's Printed Name

Experience/Training of Direct Supervisor

Signature Date of Approval (mm/dd/yy)

Phone email

Regulated Research Institutional/Industrial Setting Form (2C)

This form is required for any project where research was conducted at an RRI or any worksite other than home, school or field (one per site). This form must be completed AFTER experimentation by the supervising adult.

Student's Name(s) _____

Title of Project _____

To be completed by the Supervising Adult in the Setting (NOT the Student(s)) after experimentation:
(Responses must be on the form as it is required to be displayed at student's project booth; please do not print double-sided.)

Research was supported at my work site:

1. The student experience at your work site included:
   - Used equipment and/or received data ☐ Yes ☐ No
   - Minimal interaction with our group ☐ Yes ☐ No
   - Mentored by me or someone else from our group ☐ Yes ☐ No
   - Worked as a sub-set of our ongoing research ☐ Yes ☐ No
   - Had an independent project from our group ☐ Yes ☐ No

2a. Please describe the independent and/or creative work done by the student in any phase of the project, but particularly in developing the hypotheses or engineering goals of the project

2b. What was the duration of your support of this student project?

3. Detail the student's role in conducting the research (e.g. data collection, specific procedures performed). Differentiate what the student observed and the student actually did.

4. Did you provide any data; if yes, please provide source or describe

5. Did the student(s) work on the project as part of a group? ☐ Yes ☐ No
   Were there other high school students present? If yes, please list the students names and describe how their work was related or different from the work of this project.

6. If this project is under a grant and needs to be acknolwedged, please list the grant statement here.

I attest that the student has conducted the work as indicated above and that any required review and approval by institutional regulatory board (IRB/IACUC/IBC) has been obtained. Copies are attached if applicable. I further understand that I will be notified and have access to the public materials to be displayed at Regeneron ISEF (as applicable).

Direct Supervisor's Printed Name	Signature	Title
Institution		Date Signed (must be after experimentation) (mm/dd/yy)
Education/Experience/Training		Email/Phone

Risk Assessment Form (3)

This form is recommended for ALL projects; may be required for projects involving hazards, potentially hazardous biological agents or human participants. This form must be completed BEFORE experimentation.

Student's Name(s) _____

Title of Project _____

To be completed by the Student Researcher(s) in collaboration with Direct Supervisor/Qualified Scientist: (All questions must be answered; additional page(s) may be attached.)

1. a) List all hazardous chemicals, activities or devices to be used

   b) List all microorganisms to be used

2. Identify and assess the risks and hazards involved in this project.

3. Describe the safety precautions and procedures that will be used to reduce the risks. If you conducted field work, include permits received and safety plans, as applicable.

4. Describe the specific disposal procedures that will be used (when applicable).

5. List the source(s) of safety information.

To be completed and signed by the Direct Supervisor (or Qualified Scientist, when applicable):
I agree with the risk assessment and safety precautions and procedures described above. I certify that I have reviewed the Research Plan/Project Addendum and the International Rules, including the science fair ethics statement and will provide direct supervision.

Direct Supervisor's Printed Name	Signature	Date of Review (mm/dd/yy)

Experience/Training as relates to the student's area of research

Position/Institution	Phone or email contact information

Human Participants Form (4)

This form is required for all research involving human participants. This form must be completed by the IRB BEFORE recruitment or data collection. (If research is done at an RRI, equivalent RRI IRB documentation is required.)

Student's Name(s) | Title of Project

Adult Sponsor | Phone/Email

MUST BE COMPLETED BY STUDENT RESEARCHER(S) IN COLLABORATION WITH THE ADULT SPONSOR/DIRECT SUPERVISOR/QUALIFIED SCIENTIST:

1. ☐ I have submitted my Research Plan/Project Addendum which addresses ALL areas indicated in the Human Participants Section of the Research Plan/Project Addendum Instructions.
2. ☐ I have attached any surveys or questionnaires I will be using in my project or other documents provided to human participants.
   ☐ Any published instrument(s) used was /were legally obtained.
3. ☐ I have attached an informed consent that I would use if required by the IRB.
4. ☐ Yes ☐ No Are you working with a Qualified Scientist? If yes, attach the Qualified Scientist Form 2.

BELOW – IRB USE ONLY

MUST be completed by Institutional Review Board (IRB) after review of the research plan. All questions must be answered for the approval to be valid. (If not approved, return paperwork to the student with instructions for modifications.)

☐ Approved with Full Committee Review (3 signatures required) and the following conditions: **(All 6 must be answered)**

1. Risk Level (check one) : ☐ Minimal Risk ☐ More than Minimal Risk (a risk assessment form 3 is required).
2. Qualified Scientist (QS) Required (Form 2): ☐ Yes ☐ No
3. Risk Assessment Required (Form 3): ☐ Yes ☐ No
4. Written Minor Assent and written parental permission required for minor participants: ☐ Yes ☐ Not applicable (No minors in this study)
5. Written Informed Consent required for participants 18 years or older: ☐ Yes ☐ No ☐ Not applicable (No participants 18 yrs or older in this study)
6. Facility for "protected groups" used, written approval has been obtained: ☐ Yes ☐ No

IRB SIGNATURES (All 3 signatures required) None of these individuals may be the adult sponsor, direct supervisor, qualified scientist or related to (e.g., mother, father of) the student (conflict of interest).

I attest that I have reviewed the student's project, that the checkboxes above have been completed to indicate the IRB determination and that I agree with the decisions above.

Medical or Mental Health Professional (a psychologist, medical doctor, licensed social worker, licensed clinical professional counselor, physician's assistant, doctor of pharmacy, or registered nurse) with expertise related to this project.

Print Name below	Degree/Professional License	
Signature	Date (prior to experimentation)	Email

Educator

Print Name below	Degree/Professional License	
Signature	Date (prior to experimentation)	Email

School Administrator

Print Name below	Degree/Professional License	
Signature	Date (prior to experimentation)	Email

Human Informed Consent Form

This form is a suggested template for written informed consent.
All projects involving minors require written parental permission.

Instructions to the Student Researcher(s): An informed consent/assent/permission form should be developed in consultation with the Adult Sponsor, Direct Supervisor or Qualified Scientist.
This form is used to provide information to the research participant (or parent/guardian) and to document written informed consent, minor assent, and/or parental permission.

- When written documentation is required, the researcher keeps the original, signed form.
- Students may use this sample form or may copy ALL elements of it into a new document.

If the form is serving to document parental permission, a copy of any survey or questionnaire must be attached.

Student Researcher(s): _____

Title of Project: _____

I am asking for your voluntary participation in my science fair project. Please read the following information about the project. If you would like to participate, please sign in the appropriate area below.

Purpose of the project:

If you participate, you will be asked to:

Time required for participation:

Potential Risks (if any):

Potential Benefits (if any):

How confidentiality will be maintained:

If you have any questions about this study, feel free to contact:

Adult Sponsor/QS/DS: _____ Phone/email: _____

Voluntary Participation:

Participation in this study is completely voluntary. If you decide not to participate there will not be negative consequences. Please be aware that if you decide to participate, you may stop participating at any time and you may decide not to answer any specific question.

By signing this form I am attesting that I have read and understand the information above and I freely give my consent/assent to participate or permission for my child to participate.

Adult Informed Consent or Minor Assent Date Reviewed & Signed: _____ (mm/dd/yy)

Research Participant Printed Name: _____ Signature: _____

Parental/Guardian Permission (if applicable) Date Reviewed & Signed: _____ (mm/dd/yy)

Parent/Guardian Printed Name: _____ Signature: _____

Vertebrate Animal Form (5A)

This form is required for all research involving vertebrate animals that is conducted in a school/home/field research site. SRC approval is required BEFORE experimentation.

Student's Name(s)_____

Title of Project _____

To be completed by Student Researcher:

1. Common name (or Genus, species) and number of animals used.

2. Describe completely the housing and husbandry to be provided. Include the cage/pen size, number of animals per cage, environment, bedding, type of food, frequency of food and water, how often animal is observed, etc. Add an additional page as necessary.

3. What will happen to the animals after experimentation?

4. Attach a copy of wildlife licenses or approval forms, as applicable

5. The ISEF Vertebrate Animal Rules require that any death, illness or unexpected weight loss be investigated and documented by a letter from the qualified scientist, direct supervisor or a veterinarian. If applicable, attach this letter with this form when submitting your paperwork to the SRC prior to competition.

To be completed by Local or Affiliate Fair Scientific Review Committee (SRC) BEFORE experimentation.

Level of Supervision Required for agricultural, behavioral or nutritional studies (select one):

- ☐ Direct Supervisor REQUIRED. Please have applicable person sign below.
- ☐ Veterinarian and Direct Supervisor REQUIRED. Please have applicable persons sign below.
- ☐ Veterinarian, Direct Supervisor and Qualified Scientist REQUIRED. Please have applicable persons sign below and have the Qualified Scientist complete Form (2).

The SRC has carefully reviewed this study and finds it is an appropriate study that may be conducted in a non-regulated research site.
Local or affiliate fair SRC pre-approval signature:

SRC Chair Printed Name	Signature	Date of Approval (must be prior to experimentation) (mm/dd/yy)

To be completed by Veterinarian:

- ☐ I have reviewed this research and animal husbandry with the student before the start of experimentation.
- ☐ I have approved the use and dosages of prescription drugs and/or nutritional supplements.
- ☐ I will provide veterinary medical and nursing care in case of illness or emergency. (Fees may apply.)

Printed Name	Email/Phone
Signature	Date of Approval (mm/dd/yy)

To be completed by Direct Supervisor or Qualified Scientist when applicable:

- ☐ I have reviewed this research and animal husbandry with the student before the start of experimentation and I accept primary responsibility for the care and handling of the animals in this project.
- ☐ I will directly supervise the experiment.

Printed Name	Email/Phone
Signature	Date of Approval (mm/dd/yy)

Vertebrate Animal Form (5B)

This form is required for all research involving vertebrate animals that is conducted at a RRI.
(IACUC approval required BEFORE experimentation. This form must be completed and signed AFTER experimentation.)

Student's Name(s) _____

Title of Project _____

Title and Protocol Number of IACUC Approved Project _____

To be completed by Qualified Scientist or Principal Investigator:

1. Species of animals used: _____ Number of animals used: _____

2. Describe, in detail, the role of the student in this project: animal procedures and related equipment that were involved, oversight provided and safety precautions employed. (Attach extra pages if necessary.)

3. Was there any weight loss or death of any animal? If yes, attach a letter obtained from the qualified scientist, direct supervisor or a veterinarian documenting the situation and the results of the investigation.

4. Did the student's project also involve the use of tissues?
   - ☐ No
   - ☐ Yes; complete Forms 6A and 6B

5. What laboratory training, including dates, was provided to the student?

6. **Attach a copy of the Regulated Research Institution IACUC Approval.** A letter from the Qualified Scientist or Principal Investigator is not sufficient.

Qualified Scientist/Principal Investigator

Printed Name

Signature

Date (mm/dd/yy)

Potentially Hazardous Biological Agents Risk Assessment Form (6A)

This form is required for all research involving microorganisms, rDNA, fresh/frozen tissue, blood, blood products and body fluids. SRC/IACUC/IBC approval is required BEFORE experimentation.

Student's Name(s)_____

Title of Project_____

To be completed by the QUALIFIED SCIENTIST/DIRECT SUPERVISOR in collaboration with the student researcher(s). All questions are applicable and must be answered; additional page(s) may be attached.

SECTION 1: PROJECT ASSESSMENT

1. Identify potentially hazardous biological agents (PHBA) to be used in this experiment. Include the strain, source, quantity and the biosafety level risk group of each microorganism or tissue.

2. Please indicate the BSL level of the experimentation site:

   ☐ None ☐ BSL-1 ☐ BSL-2

   If BSL-2 laboratory, not at an RRI, include the **BSL-2 checklist**

3. Describe the precautions that will be used to minimize risk.

4. Describe the method of disposal of all cultured materials and other potentially hazardous biological agents.

SECTION 2: TRAINING

1. What training will the student receive for this project?

2. Experience/training of Direct Supervisor as it relates to the student's area of research (if applicable).

SECTION 3: For ALL CELL LINES, MICROORGANISMS AND TISSUES – To be completed by the QUALIFIED SCIENTIST or Direct Supervisor - Check the appropriate box(es) below:

☐ Experimentation on the microorganisms/cell lines/tissues to be used in this study will NOT be conducted at a Regulated Research Institution, but will be conducted at a (check one) ☐BSL-1 or ☐BSL-2 laboratory (include a copy of the **checklist for BSL-2**. [This study has been reviewed by the local SRC and the procedures have been approved prior to experimentation.]

☐ This project involves the culturing of Multi Drug Resistant Organisms (MDROs). It has been conducted in a BSL-2 or higher lab at a Regulated Research Institution and the required IBC pre-approval is attached.
Date of IBC approval _____

☐ Experimentation on the microorganisms/cell lines/tissues to be used in this study will be conducted at a Regulated Research Institution and was approved by the appropriate institutional board prior to experimentation; institutional approval forms are attached.
Origin of cell lines:_____ Date of IRC/IBC/IACUC approval _____

☐ Experimentation on the microorganisms/cell lines/tissues to be used will be conducted at a Regulated Research Institution, which does not require IACUC or IBC approval for this type of study.

CERTIFICATION – To be SIGNED by the QUALIFIED SCIENTIST or Direct Supervisor

The QS/DS has seen this project's research plan and supporting documentation and acknowledges the accuracy of the information provided above. This study has been approved as a (check one) ☐BSL-1/ ☐BSL-2 study, and will be conducted in an appropriate laboratory.

QS/DS Printed Name Signature Date of review (mm/dd/yy)

Human and Vertebrate Animal Tissue Form (6B)

This form is required for research involving fresh/frozen tissue (including human and/or vertebrate animal established cell lines and tissue culture collections), blood, blood products and body fluids. All projects using any tissue listed above must also complete Form 6A. This form must be completed by the QS/DS BEFORE experimentation.

Student's Name(s) _____

Title of Project _____

To be completed by Student Researcher(s):

1. What vertebrate animal tissue will be used in this study? Check all that apply.
   - ☐ Fresh or frozen tissue sample
   - ☐ Fresh organ or other body part
   - ☐ Blood
   - ☐ Body fluids
   - ☐ Primary cell/tissue cultures
   - ☐ Human or other primate established cell lines
   - ☐ Vertebrate established cell lines
   - ☐ Exempt tissue (describe):

2. Where will the above tissue(s) be obtained? If using an established cell line include source and catalog numbe

3. If the tissue will be obtained from a vertebrate animal study conducted at a research institution attach a copy the IACUC certification with the name of the research institution, the title of the study, the IACUC approval nu ber and date. If human tissues were used, attach a copy of IRB approval.

To be completed by the Qualified Scientist or Direct Supervisor:

☐ I verify that the student will work solely with de-identified organs, tissues, cultures or cells that will be supplied to him/her by myself or qualified personnel from the laboratory; and that if vertebrate animals were euthanized they were euthanized for a purpose other than the student's research.

AND/OR

☐ I certify that the blood, blood products, tissues or body fluids in this project will be handled in accordance with the standards and guidance set forth in U.S. Occupational Safety and Health Act, 29CFR, Subpart Z, 1910.1030 - Blood Born Pathogens.

Printed Name	Signature	Date of Approval (mm/dd/yy) (Must be prior to experimentation.)
Title	Phone/Email	
Institution		

Continuation/Research Progression Projects Form (7)

This form is required for projects that are a continuation/progression in the same field of study as a previous project.
This form must be accompanied by the previous year's abstract and Research Plan/Project Addendum.
This form may be completed AFTER experimentation.

Student's Name(s) _____

To be completed by Student Researcher: List all components of the current project that make it new and different from previous research. The current years project should be compared to the immediate previous year (ie. Year 1 to Year 2, Year 2 to Year 3, etc.).

Components	Current Research Project	Previous Research Project: Year: _____
1. Title		
2. Change in goal/ purpose/objective		
3. Changes in methodology		
4. Variable studied		
5. Additional changes		

Attached are:

☐ Previous year's Abstract and Research Plan/Project Addendum, Year _____
☐ Previous Form 7s, if applicable.

I hereby certify that the above information is correct and that the current year Abstract & Certification and project display board properly reflect work done only in the current year.

Student's Printed Name(s)	Signature	Date of Signature (mm/dd/yy)

ENCLOSURE # 8: COMPANION GUIDE TO THE ISEF

INTRODUCTION

Welcome to this companion guide to the *International Rules and Guidelines for Pre-Collegiate Scientific Research*. This guidebook is designed to be used in conjunction with the official International Rules. In 2026, we reorganized and streamlined the International Rules removing much of the guidance scattered throughout the document. This Guide takes this information as well as other supporting documents that have been created over the years and brings them all together in one updated and organized resource.

Research students are curious, creative and are exploring an endless number of subjects in their science and engineering projects. Keeping up with the length and complexity of the International Rules and required approval processes and documentation can be difficult. It is our intent and goal that this Guide will support your comprehension of the rules and guide students to successful, safe research.

The *International Rules for Pre-college Science Research: Guidelines for Science and Engineering Fairs* is published annually to support students doing independent research safely. The International Rules are the official rules of the Regeneron ISEF and students competing at Society-affiliated science fairs.

If you are not intimately familiar with the Rules, they can be intimidating. This Guide will hopefully make the path to enlightenment a little easier. This guide is written for anyone involved in a student research project. If you are a high school freshman contemplating your first science fair project or a State Fair Director having been involved with hundreds, if not thousands of projects, it is our hope that you will find something in this document that makes your journey a little easier.

This Guide is crafted to be easily navigated; if there is an area of concern or question, you should be able to navigate directly to that area. The Guide is organized with the planning cycle of a research project in mind. At the end of the document, parallel with the organization of the International Rules, you will find a section per specialized area of research: humans, animals, potentially hazardous biological agents (PHBAs), tissue & body fluids and hazardous chemicals, materials and devices.

Our number one priority is safety. The safety of the student, safety of the people around the student and the safety of the environment cannot be overstated. When working with chemicals, animals, PHBAs, etc., there is always the potential for unforeseen consequences. The Guidebook is a way to consider looking at some of those risk factors before experimentation. They will not define all potential risks but will provide an avenue to consider what the student is doing and the kinds of concerns the student should be mindful of before starting experimentation.

An area of focus in this Guide is to consider the risk of potential damage to the environment by students working in the field. We have included an environmental protection section that considers environmental concerns in the many areas of the International Rules. We also have included a new Field Study Plan that is intended to support management of the risks involved with field studies. After speaking to a field scientist with the EPA, there are many potential risks in field work, such as harmful PHBAs in the water, invasive species introduction, and many other considerations. We want to ensure students, and their mentors, consider these risks and take precautions prior to embarking on the experiment.

Another focus we have taken is to center the student research experience first and foremost on ethical conduct and practices. This Guide begins with a section on scientific integrity and the scientific ethics statement that ALL of those involved in a student research project – including mentors, teachers, parents and those serving on the SRC, IRB, IACUC – must fully understand and adhere to throughout the research and competition experience. Please take the time to read it and discuss the responsibilities it confers to students and all the adults in the process of supporting those students. This should be done early in the process and certainly prior to any experimental work beginning.

We are excited to share this resource with you; we are also aware that as a first version there may be errors, omissions or improvements that could be made. We encourage you to email us at src@societyforscience.org with suggestions as we collectively seek the best, ethical and safe research experiences for our students.

■ ISEF Scientific Review Committee, July 2026

SCIENTIFIC INTEGRITY

Scientific integrity is central to the credibility, reliability, and progress of science. It is important that researchers of any age adhere to principles of honesty, transparency, and objectivity in how they conduct, document, and present their research. This becomes even more critical as it pertains to competing with a project to ensure that all are meeting the requirements and standards equally for a fair and just judging process.

Participating in a Society for Science competition carries moral and ethical responsibilities for every young person. Society for Science expects students to act with honor and integrity when conducting scientific research and while interacting within their peer community.

- Scientific fraud and misconduct are prohibited at all levels of research and competition.
- Student scientists must not fabricate data or images, plagiarize or present someone else's work as their own.
- Student scientists must differentiate their own work from the work of others and cite all sources.
- Student scientists must respect confidentiality and intellectual property.

While pre-collegiate scientific research is an educational process that includes the potential for errors and omissions, it is essential that students' intentions remain honest and free from deceit.

ETHICS STATEMENT

(This is at the beginning of the International Rules and is provided here for emphasis and to provide some additional context and explanation.)

Student researchers, as well as adults who have a role in their projects, are expected to maintain the highest ethical standards. These standards include, but are not limited to:

- **Integrity**. Honesty, objectivity, and avoidance of conflicts of interest are expected during every phase of the project. The project should reflect independent research done by the student(s) and presented in their own words with proper citation. The presentation of fraudulent data, the evidence of plagiarism or the inappropriate use of AI are prohibited and grounds for the project to fail to qualify.
- **Legality**. Compliance with all federal, state and local laws and regulations is essential. In addition, projects conducted outside the U.S. must also adhere to the laws of the country and jurisdiction in which the project was performed. All projects must be approved by a Scientific Review Committee (SRC), and when necessary must also be approved by an Institutional Review Board (IRB), Institutional Animal Care and Use Committee (IACUC), and/or Institutional Biosafety Committee (IBC). It is recommended that students reference their local, state or national laws and regulations.
- **Respect for Confidentiality and Intellectual Property.** Confidential communications, as well as patents, copyrights, and other forms of intellectual property must be honored. Unpublished data, methods, or results may not be used without permission, and credit must be given for all contributions to the research.
- **Stewardship of the Environment**. It is the responsibility of the researcher and the adults involved to protect the environment from harm. Introduction or disposal of native, genetically-altered, and/or invasive species (e.g. insects, plants, invertebrates, vertebrates), pathogens, toxic chemicals or foreign substances into the environment is prohibited. It is recommended that students reference their local, state or national regulations and quarantine lists.
- **Acknowledgment of Risks**. All projects involve some amount of risk. Everyone is expected to recognize the hazards, assess the risks, minimize the risks, and prepare for emergencies.
- **Animal Care**. Proper care and respect must be given to vertebrate animals. The use of non-animal research methods and alternatives to animal research are strongly encouraged and must be explored before conducting a vertebrate animal project. The guiding principles for the use of animals in research includes the following "Four R's:' Replace, Reduce, Refine, Respect.
- **Human Participant Protection.** The highest priority is the health and well-being of the student researcher(s) and human participants.
- **Potentially Hazardous Biological Agents (PHBAs).** It is the responsibility of the student and adults involved in the project to conduct and document a risk assessment, and to safely handle and dispose of organisms and materials.

Scientific fraud and misconduct are not condoned at any level of research or competition. This includes plagiarism, forgery, use or presentation of other researchers' work as one's own and fabrication of data. Fraudulent projects will fail to qualify for competition in affiliated fairs and ISEF. Society for Science reserves the right to revoke recognition of a project subsequently found to have been fraudulent.

INAPPROPRIATE USE OF AI

Rule 8. for All Projects states: Artificial Intelligence (AI) may be used as a project 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).

Artificial Intelligence applications are progressing quickly and setting policies and practices for its appropriate use in education will inevitably evolve in the next several years. The table below is adapted from an AHA Ad Hoc Committee on AI in History Education.[1] This is a preliminary model and is a suggested policy established by the ISEF SRC and Society staff to help define what is and isn't appropriate AI usage in conducting a science fair project. Affiliated fairs may adopt their own, stricter, policies.

The key to this table and to our philosophy is that AI may be used to ideate and to generate initial brainstorming and research but that it must be cited properly and reviewed thoroughly for accuracy and veracity. It is the responsibility of the student researcher to document where and how AI is used and to never attribute the results from an AI prompt as their own words.

As remains true in using the internet, students must be guided and gain AI literacy to understand how to use AI effectively while understanding its limitations.

"*For all its capacities, generative AI regularly hallucinates content, references, sources, and quotations.* AI models are trained to identify and reproduce patterns, not to comprehend the world in all its complexity and contradictions. If a pattern leads to a false, biased, or imagined output, AI has no way to self-correct."[1]

Using AI responsibly requires a strict documentation process to allow a student (and the adults involved - adult sponsors, mentors, judges and fair officials) to be able to identify and trace where AI was used and how the student directed the prompts and then verified the information being provided.

For human participant projects, it is strongly advised that students not use AI as a chat bot or to provide unscripted responses to participants. Even with guardrails in place, the AI tool may provide harmful advice, diagnostic, or medical information to participants and be in violation of the rules.

This is most critical when it comes to a literature review and bibliography as it is a serious ethical violation to use an AI tool to generate your bibliography without ever having reviewed or consulted the articles and documents it identifies. "AI introduces new possibilities for fabricated sources; students must be trained to critically assess all outputs and to recognize that any information provided by a generative AI tool could be false unless properly verified."[1] Students are presenting scientific research as their own supported by their understanding from the existing literature. If the citations and references are fabricated it brings into question the validity and veracity of the student's research project.

It is strongly advised not to use AI tools for formatting references, however if it is used, all references must be verified manually by the student researcher.

Use of generative AI to support a research project

Task	Could this be acceptable use?	Under what conditions?
Ask generative AI to identify or summarize key points in an article before you read it. Use this as a starting point for your literature review.	Yes	Acceptable without explicit citation
Ask AI to summarize a book or article in your field. Reproduce that summary in your literature review without reading the book or article	No	Never acceptable, as there has been no engagement with the book or source itself
Use an AI chatbot as a writing tool to help generate and develop ideas	Yes	Acceptable, may require explicit citation depending on circumstances. Strongly encouraged to keep a log of your prompts as part of your research notebook.
Use generative AI to initially write the research plan, abstract, paper or poster.	No	Never acceptable. This must be the independent work of the student. Guidance or refinement after the initial document has been completed can be done with explicit citation and a log.

Task	Could this be acceptable use?	Under what conditions?
Use AI to write initial code for your project	Yes	Acceptable, only with explicit citation stating which portions of the code were AI generated and with a log of the prompts.
You write an abstract. Ask AI to sharpen the language but not modify, add to, or replace the main points	Yes	Acceptable use without explicit citation only if changes suggested by AI are limited to grammar and syntax
Ask generative AI to produce a flowchart, graphic, or image for a paper or presentation	Yes	Image should be clearly marked as AI-generated and with explicit citation as to how the image was created.
Write your research paper. Ask AI to add additional points to your research paper	No	Never acceptable.
Use AI to produce your conclusions, future steps, etc.	No	Never acceptable
Use AI to help identify appropriate statistical tests or software tools. (Interpretation of data must be done by the student researcher).	Yes	Acceptable, requires a log of your prompts as part of your research notebook
Ask generative AI to produce a starter bibliography	No	Never acceptable.
Use AI to collect data and write research plan. Use AI to provide citations that back up your claims	No	Never acceptable.
Ask generative AI to fix the structure or formatting of your bibliography	Yes	Acceptable without explicit citation. You must review and verify all citations as valid.

- Adapted from: Guiding Principles for Artificial Intelligence in History Education *Approved by AHA Council, July 29, 2025*

Download the table as a stand-alone document.

ACADEMIC INTEGRITY

It is of utmost importance that a student researcher works closely with the adults supporting their work to both provide appropriate acknowledgement of the support that they have received but to also gain all appropriate permissions and clearances to present their research in any circumstance in which the work is not solely their own. Working in a RRI laboratory, working with data that is not publicly available or working as a sub-set of any identifiable class or club project requires proper citations and crediting of others' work and may require formal Institutional review and approval from the RRI or RRI's appropriate review body before public presentation at a science fair. Seeking and receiving permissions should be done as you begin a project to make those involved aware of your intentions to produce an independent project, and compete at a future science fair. Student researchers need to obtain permission from their mentors before submitting their research to enter science fair. It is much better to have this discussion and agreement before the project has concluded and there are intellectual property or other proprietary concerns that the mentor has about publicly disclosing the research the student has done via science competition.

DISCLOSURE OF MENTORS & PAID SUPPORT

There is no rule that prohibits a student from working closely with a mentor – whether a family relative, friend or colleague or an individual sought for their expertise in the field of study. A student may participate in a paid or unpaid research program (with compensation to the mentor or not) and receive private lessons, tutoring or mentoring support.

What is important is full disclosure of the relationship, the nature of the mentorship and full acknowledgement of the support received in conducting the research. A student researcher must attest that they have done an independent project and what they are presenting is their own work. The documentation of their project – the research plan and the abstract – must present clearly what they have done and what support they received.

New in 2027, all students must now complete the Student Support Disclosure Form 2A. This form provides an opportunity to list all of the adults who supported the project as well as indicating any programs or paid mentorship that was provided and how artificial intelligence was used in the project.

Society for Science does not endorse any particular research programs; in fact, we do not believe a

student must participate in a research program to be successful as a scientist or in our programs. We do see the value in mentorship and learning research skills, and understand why some students may seek paid or unpaid options, but urge students and parents/guardians to be diligent in their selection of these types of programs.

For individuals seeking legitimate research programs, here are a few tips:

- A legitimate program will include the names and credentials of their staff and mentors on their website.
- A legitimate program shares transparent pricing on their website.
- Programs should not promise results. In addition, reciprocal payment based on student payment in competition is not permitted.
- Programs should not ask students for secrecy; this is inappropriate behavior when working with minors, and disclosure of additional support is required.

Society for Science is most concerned about safeguarding students and their parents against fraud and unfortunately there are many resources available that promise winning over supporting authentic student research. No research program should guarantee competition success. Any individual who is aware of fraudulent or suspicious research programs should email isef@societyforscience.org.

GRIEVANCES

Submitting a scientific integrity allegation is a serious action that should be done only with credible evidence and when you are willing to come forward as an identifiable source of that information. No adverse action or retaliation will be taken against a person who reports a violation or who participates in an investigation in good faith. Please note that the Society discourages anonymous allegations and may choose not to investigate them. Anonymous allegations — particularly those lacking context, evidence or full disclosure of relevant relationships — can hinder our ability to investigate thoroughly and fairly. False accusations can be a form of harassment, particularly when made publicly and can be actionable if knowingly charged without proper evidence. Individuals who come forward with concerns through our established reporting channels will not be retaliated against or punished in any way.

ROLES & RESPONSIBILITIES OF STUDENTS AND ADULTS

As a student researcher begins the planning for a research project, it is important to understand the different roles and responsibilities for the student(s) and the adults supporting the project or the review of the project. This information is also included in the International Rules.

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The Student Researcher(s)
The Adult Sponsor
The Qualified Scientist
The Direct Supervisor

THE STUDENT RESEARCHER(S)

The student researcher is responsible for all aspects of the research project:

- Enlisting the aid of any required supervisory adults (Adult Sponsor, Qualified Scientist, etc.), obtaining necessary approvals (SRC, IRB, etc.)
- Following the International Rules & Guidelines and obtaining all necessary approvals (SRC, IRB, etc.) and completing all appropriate documentation
- Performing the project (which may include, but is not limited to) experimentation, data collection, engineering, data analysis, and any other process or procedures related to the project
- Understanding and abiding by the Ethics Statement and attesting to this understanding on Approval Form 1B.

To avoid conflict of interest, no Adult Sponsor, parent or other relative of the student, the Qualified Scientist, or Direct Supervisor who oversees the project, may serve on the SRC or IRB reviewing that project.

THE ADULT SPONSOR

Qualifications:
An Adult Sponsor may be a teacher, parent, professor, and/or other professional scientist

Should be knowledgeable in the area of student research, be familiar with the regulations around procedures and materials that apply to the student project, particularly when involving human participants, vertebrate animals, potentially hazardous biological agents or hazardous chemicals, devices or activities.

Should have close contact with the student throughout the timeline of the project.

Responsibilities:
The Adult Sponsor is responsible for:

- Working with the student to evaluate any possible risks involved in order to ensure the health and safety of the student conducting the research and the humans and/or animals involved in the study.
- Reviewing the student's Student Checklist (1A) and Research Plan to ensure that:
  - experimentation follows local, state, and Federal laws and the International Rules
  - forms are completed by other required adults
  - any required Qualified Scientist meets the criteria as set forth in the International Rules and Guidelines
  - the student's research is eligible for entry in ISEF

THE QUALIFIED SCIENTIST

Qualifications:

- Earned a doctoral/professional degree in a scientific discipline related to student's area of research

AND/OR

a. Individual with extensive experience and expertise in the student's area of research

b. Must be thoroughly familiar with the following regulations that govern the student's area of research including all local, state, Federal and if applicable, non-U.S. national regulations and laws.

c. Can also serve as the Adult Sponsor, if that person meets both sets of qualifications

d. May live elsewhere and not be local to the student, in which case, a Direct Supervisor has been appointed and trained to serve as the onsite supervision as necessary for the specific student project.

Responsibilities:
The Qualified Scientist is responsible for:

- Reviewing the ISEF rules relevant to the project and approving the student's research plan or engineering design prior to the start of experimentation
- Providing direct supervision throughout the timeline of the project or coordinating with a Direct Supervisor to serve in this capacity
- Ensuring the proper training of the Student Researcher and/or Direct Supervisor in the necessary procedures
- Completing the required documentation which may include the Regulated Research Institutional Setting Form (1C), the Qualified Scientist Form (2) and the Risk Assessment Form (3), when applicable.

THE DIRECT SUPERVISOR

Qualifications:

- Does not need an advanced degree
- Must be familiar with the student's project and agree to any training necessary
- May also serve as the Adult Sponsor for the project
- If the project involves the use of Vertebrate Animals (where behavior/habitat is influenced by humans), must be knowledgeable about the humane care and handling of the animals

Responsibilities:

- Providing direct supervision of the student experimentation
- Completing the required documentation — the Direct Supervisor box on the Qualified Scientist Form (2) when applicable
- Reviewing and completing the Risk Assessment Form (3) when needed.

Documenting the Project

Writing a Research Plan and Risk Assessment

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Introduction
Research Plan Requirements (from Intl Rules)
Research Plan Templates; Online Systems that Support the Writing of a Plan
Conducting a Risk Assessment
Resource Listing/Bibliography/Citations
Research Notebook/Logbook
Edits/Corrections during the Review Process
Project Summary

INTRODUCTION

A research plan is the key to a successful project. It is a framework to plan a project -- to pose the question being asked or the problem being solved and the steps that will be taken to reach the goal. It is a clear and detailed accounting of the methodology or procedures intended. It is an opportunity to conduct a risk assessment that will in turn support decisions about the environment in which to conduct the project, the supervision necessary and if there are pre-approvals required before you begin experimentation.

A research plan does not need to have all of the answers; but it should be a clear roadmap for the student researcher to share the intended steps and to review and receive feedback before beginning. The research plan can be an iterative process and can be amended and appended with a project summary if changes are made along the way.

The International Rules provide clear guidance on the elements of your project that should be addressed in the plan. We strongly encourage educators, parents and mentors to be directly involved in reviewing and providing feedback as the research plan is developed. Consider potential constraints -- time, resources, research location, risks and expertise or supervision -- as well as the permissions that will be required for any given project. Time spent on developing a strong research plan will support student researcher safety and a close review of the rules with the research plan will lead to the successful completion of a student research project.

RESEARCH PLAN REQUIREMENTS

(from International Rules)

- The Research Plan is to be written prior to experimentation following the instructions below to detail the rationale, research question(s), methodology, and risk assessment of the proposed research.
- If changes are made during the research prior to competing in an affiliated fair, such changes can be added to the original research plan as an addendum, recognizing that some changes may require returning to the IRB or SRC for appropriate review and approvals. If no additional approvals are required, this addendum serves as a project summary to explain research that was conducted.
- If no changes are made from the original research plan, no project summary is required.
- Some studies, such as an engineering design or mathematics projects, will be less detailed in the initial project plan and will change through the course of research. If such changes occur, a project summary that explains what was done is required and can be appended to the original research plan.
- The Research Plan/Project Summary should include the following:
    a. RATIONALE: Include a brief synopsis of the background that supports your research problem and explain why this research is important and if applicable, explain any societal impact of your research.
    b. RESEARCH QUESTION(S), HYPOTHESIS(ES), ENGINEERING GOAL(S), EXPECTED OUTCOMES: How is this based on the rationale described above?
    c. Describe the following in detail:
- List of materials:
- Procedures: Detail all procedures and experimental design methods for data collection, and when applicable, the source of data used. Describe only your project. Do not include work done by mentor or others.
- Risk and Safety: Identify any potential risks and safety precautions needed.
- Data Analysis: Describe the procedures you will use to analyze the data/ results.

a. **BIBLIOGRAPHY:** List major references (e.g. science journal articles, books, internet sites) from your literature review. If you plan to use vertebrate animals, one of these references must be an animal care reference.

Items 1–4 below are subject-specific guidelines for additional items to be included in your research plan/project summary as applicable.

1. Human participants research:

a. **Participants:** Describe age range, gender, racial/ethnic composition of participants. Identify vulnerable populations (minors, pregnant women, prisoners, mentally disabled or economically disadvantaged).

b. **Recruitment:** Where will you find your participants? How will they be invited to participate?

c. **Methods**: What will participants be asked to do? Will you use any surveys, questionnaires or tests? If yes and not your own, how did you obtain? Did it require permissions? If so, explain. What is the frequency and length of time involved for each participant?

d. **Risk Assessment**: What are the risks or potential discomforts (physical, psychological, time involved, social, legal, etc.) to participants? How will you minimize risks? List any benefits to society or participants.

e. **Protection of Privacy**: Will identifiable information (e.g., names, telephone numbers, birth dates, email addresses) be collected? Will data be confidential/ anonymous? If anonymous, describe how the data will be collected. If not anonymous, what procedures are in place for safeguarding confidentiality? Where will data be stored? Who will have access to the data? What will you do with the data after the study?

f. **Informed Consent Process:** Describe how you will inform participants about the purpose of the study, what they will be asked to do, that their participation is voluntary and they have the right to stop at any time.

2. Vertebrate animal research:

a. Discuss potential ALTERNATIVES to vertebrate animal use and present justification for use of vertebrates. This should address the following "Four R's:' Replace, Reduce, Refine, Respect.

b. Explain potential impact or contribution of this research.

c. Detail all procedures to be used, including methods used to minimize potential discomfort, distress, pain and injury to the animals and detailed chemical concentrations and drug dosages.

d. Detail animal numbers, species, strain, sex, age, source, etc., include justification of the numbers planned.

e. Describe housing and oversight of daily care.

f. Discuss disposition of the animals at the end of the study.

3. Potentially hazardous biological agents research:

a. Give source of the organism and describe BSL assessment process and BSL determination.

b. Detail safety precautions and discuss methods of disposal.

4. Hazardous chemicals, activities and devices:

a. Describe Risk Assessment process, supervision, safety precautions and methods of disposal.

b. Safety Data Sheets are not necessary to submit with paperwork.

LITERATURE REVIEW/ RESOURCES/BIBLIOGRAPHY/ CITATIONS

An important element of planning a research project is to review the literature within the field of study and to establish a bibliography of the sources that were used in the development of the student researcher's plan. It is critical that the student researcher document and cite resources as they gather information so that they do not plagiarize or fail to acknowledge the work of others in the development of their project.

Ultimately, in the presentation of their project either in a research paper, powerpoint presentation or project board, citing the sources of background information, methodology, graphics, illustrations or other visuals used in the presentation of their research is vital. The citation requirements of Society for Science competitions have become stricter as materials are so easily accessible and transferable.

The intention of a bibliography is that it contains resources that were reviewed and used in the development of the project. Using AI to conduct a literature search and to develop the bibliography for a project is a tool that is readily available on the internet. It is not recommended that students use such tools, but if they do, it is imperative that a student recognizes its limitations and verifies every source that is generated. Many AI tools are not reliable and are liable to hallucinate and create sources that are not real. Having citations that are falsified by any means is a serious ethical concern and grounds for a project to fail to qualify.

LOGBOOK/RESEARCH NOTEBOOK

As you work with your students on the planning of their research, please also provide guidance on establishing a research laboratory notebook or logbook. Maintaining a laboratory notebook is an important documentation process to provide a written record of procedures, calculations, trials, explanations, etc. This can both be the legal documentation of a student's intellectual property and evidence of the work done over time as a reference for the student to refer to as they analyze their data. It is also the official record of the methodology of the project that would aid someone seeking to repeat the project. As referenced above, even recording the prompts used in generative AI inquiries are important to capture as a student begins their project.

A laboratory notebook can be a paper document or can be electronic. An RRI laboratory may have established documentation processes or you as an educator may have requirements that all students must follow. A student should consult with their Adult Sponsor or Qualified Scientist about the best template to use as they begin.

CONDUCTING A RISK ASSESSMENT

As students develop their research plan, all are asked to "identify any potential risks and safety precautions needed." There are some projects where the hazards are clear (to at least the adults supervising the project) and a risk assessment can be created that states clearly the required supervision, laboratory/research setting, the personal protective equipment (PPE), the proper disposal, etc.

And some projects appear to have no risks at all. Mathematics comes to mind. However, the process of considering risks is important for all projects and not just to avoid papercuts or eye strain (the popular answer on a mathematics project risk assessment.) It is a valuable exercise to consider unintended consequences and how to ensure that a student research project "does no harm." While the core of a risk assessment is the student researcher's safety, it is also important for a student to consider the potential risks in their data management and to any psychological or privacy concerns their project may involve (particularly those working with human participants.)

In the more 'classic" risk assessment, consider the formula:

Hazards x Exposure = Risk

A risk assessment is assessing the potential hazards involved in the materials or methodology of the project and the exposure to the student researcher. Wherever possible when assessing risk, the project should limit the hazard and the exposure to the hazard. In hazardous materials, this may mean using the least amount and the lowest concentration of hazardous materials as possible to achieve the goals of the project.

One example: A student project involves constructing an apparatus and power tools are going to be used.

- Is the student operating the equipment or will the direct supervisor be using?
- Where is the research being conducted (a laboratory, business workshop, or home basement)?
- Is the student trained to use the equipment?
- Is the student supervised during the usage of the equipment by a qualified individual?
- Does the student have the appropriate personal protective equipment (PPE)?
- How often/how frequently will the equipment need to be used?

In this example, you can imagine a fairly low-risk project to a highly risky project based on the answers to the questions.

The risk assessment is the process of asking those questions BEFORE experimentation and ensuring that all possible hazards and exposure to those hazards are reduced – through supervision, training, safety equipment or changing the methodology to use less dangerous materials or devices.

ONLINE SYSTEMS AND RESEARCH PLAN TEMPLATES

Student researchers can be aided in the development of their research plan using a template and/or an online system that is used by an affiliated fair to support the capture of the required elements of a plan. Check with your affiliated fair about any online portal requirements/help aids as you get started.

If your school or affiliated fair does not use an online system to capture this information, there is a research plan template on the Society for Science website.

EDITS/CORRECTIONS AFTER THE INITIAL REVIEW

While the intent of creating a thorough research plan is to have a roadmap and to document the intended process, it is inevitable that research project changes are going to happen. It is important for the Adult Sponsor to monitor progress and to know when straying from the plan are minor adjustments or when a change introduces a significant difference that either now requires pre-approval to proceed or needs to return to the SRC or IRB that initially reviewed the project to receive additional/new review. This change should be reflected in an Addendum to the initial Research Plan.

PROJECT ADDENDUM

The International Rules labels the research plan the "Research Plan / Project Addendum" to address modifications or adjustments that were made to the project after it began.
A project addendum would be appended to the research plan to describe changes – in methodology, materials, processes – that occurred during the course of the project. This is especially useful for an engineering design project that is iterative. Documenting the changes that were made in the iterative process belong in the Project Addendum.

ISEF Forms

Index

[Introduction](#)
[Rules Wizard](#)
[Overview of Forms](#)

INTRODUCTION

In the planning of a research project, understanding what documentation is needed is a key element to ensure that all of the required questions related to the project are addressed and that the project receives the appropriate adult review (signified most often by a dated signature) signifying their approval and role in the project.

RULES WIZARD

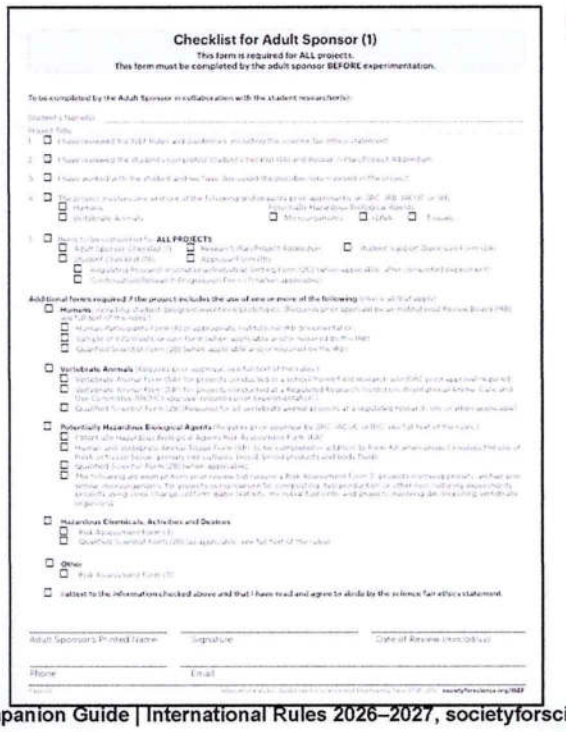
The Rules Wizard has been designed as a first step to help a student determine what forms and approvals are necessary before beginning a science fair project. It is a series of questions (that are intentionally repetitious). As a student selects a response, there are also pop-up messages with reminders relative to the selection (such as culturing microorganisms in a home environment is prohibited if "home" and "microorganisms" are both checked.). After completing the series of questions, a results page will list forms and links to the associated rules. Please review these results with your students to ensure that all of those involved understand the research being planned and the appropriate safety precautions and pre-approvals can be obtained.

This wizard is intended to be a helping tool but cannot account for all specifics and situations of individual projects. There is a common saying, "if in doubt, fill it out." Having more documentation or more pre-approval for a project than is strictly necessary is both good practice for all students to go through the process and a safeguard that a project does not inadvertently skip an important step as they begin.

OVERVIEW OF FORMS AND DATES

The ISEF forms constitute written documentation of what will occur, or in some cases, has already occurred, in a research project. They are designed to provide the information that is needed to review the project to ensure compliance with the international rules and with laws and regulations that apply to the project. The forms should be filled out and signed before any research takes place. (Only the Regulated Research Setting Form 2C, the Vertebrate Animal Form 5B, the Continuation Form 7 and the abstract are completed after the research.) The dates of the signatures reflect when the approval or consent is given. Use MM/DD/YY format for all dates.

Below there is a description of each form, its core purpose and areas of focus for the SRC reviewing the documentation either in the pre-approval process or in the SRC review and approval just prior to competition.



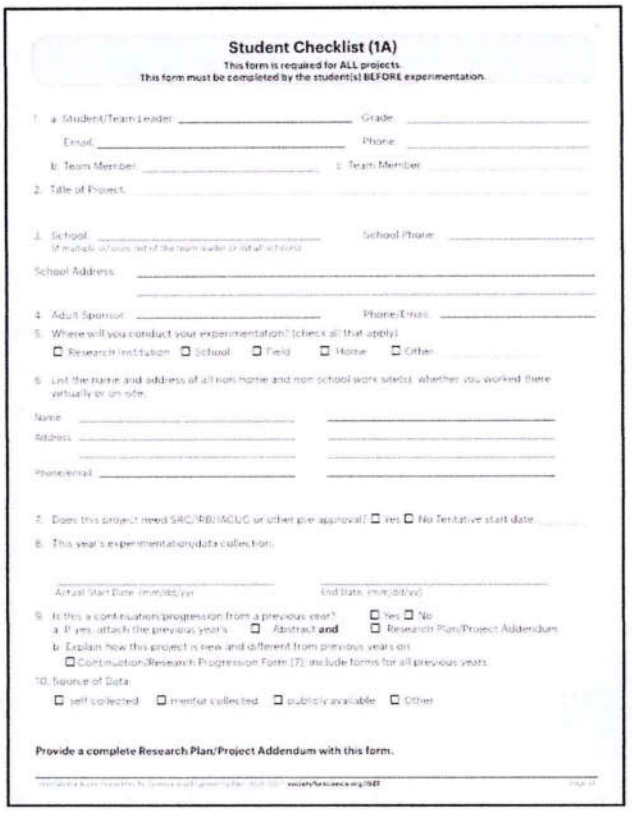
Checklist for Adult Sponsor (1)

This form is required for ALL projects.
This form must be completed by the adult sponsor BEFORE experimentation.

CHECKLIST FOR ADULT SPONSOR (1)

This checklist is intended to support the adult sponsor's initial review of the project and help determine what information (and therefore which forms) must be completed before the project starts. The form asks more specifically about projects that require pre-approval (humans, animals, PHBA's). It is another support structure to indicate the other forms that will be required. The answers to this checklist need to be consistent with the answers on other forms.

The date signed is the date that the sponsor reviews the project plan before the experiment begins. The signature is attesting that the Adult Sponsor has read the International Rules and agrees to the Ethics Statement.



Student Checklist (1A)

This form is required for ALL projects.
This form must be completed by the student(s) BEFORE experimentation.

1. a. Student/Team Leader: _____ Grade: _____
Email: _____ Phone: _____
b. Team Member: _____ c. Team Member: _____
2. Title of Project: _____
3. School: _____ School Phone: _____
(If multiple schools, list of the team leader or list all schools)
School Address: _____
_____
4. Adult Sponsor: _____ Phone/Email: _____
5. Where will you conduct your experimentation? (check all that apply)
☐ Research Institution ☐ School ☐ Field ☐ Home ☐ Other: _____
6. List the name and address of all non-home and non-school work site(s), whether you worked there virtually or on-site.
Name: _____ _____
Address: _____ _____
_____ _____
Phone/email: _____ _____
7. Does this project need SRC/RB/IACUC or other pre-approval? ☐ Yes ☐ No Tentative start date: _____
8. This year's experimentation/data collection:
_____ _____
Actual Start Date (mm/dd/yy) End Date (mm/dd/yy)
9. Is this a continuation/progression from a previous year? ☐ Yes ☐ No
a. If yes, attach the previous year's ☐ Abstract **and** ☐ Research Plan/Project Addendum
b. Explain how this project is new and different from previous years on:
☐ Continuation/Research Progression Form (7); include forms for all previous years
10. Source of Data:
☐ self-collected ☐ mentor-collected ☐ publicly available ☐ Other

Provide a complete Research Plan/Project Addendum with this form.

STUDENT CHECKLIST (1A)

The Student Checklist (1A) is the form on which the student provides contact information for themselves and their adult sponsor and indicates key details about the planned project – whether it needs pre-approval, whether it is a continuation, the start and end date, intended experimentation location(s), etc.

Key points to go over with your students:

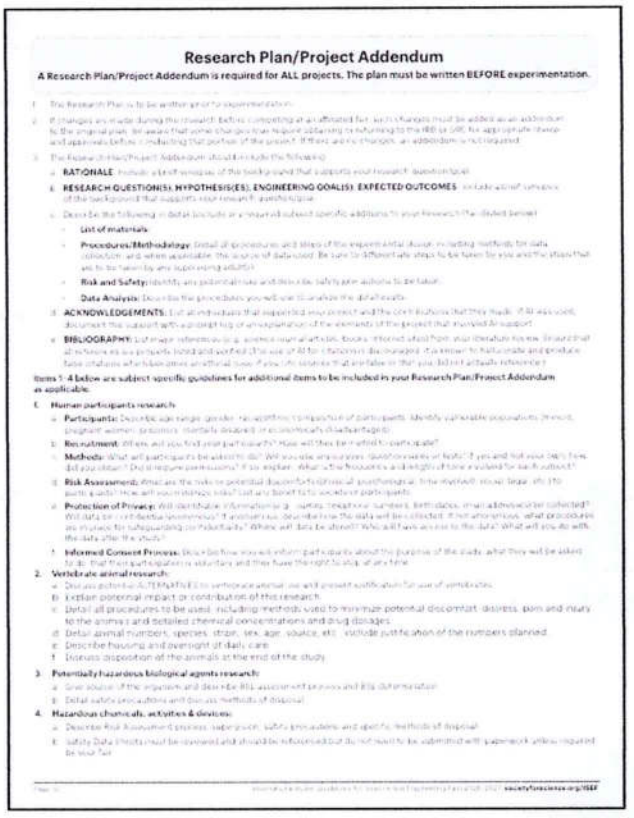
#5: Information regarding Research Site: List where the experimental research will be done and check all that apply: research institution, school, field, home. If other than home or school, please list the address of the facilities on the form. (Note: There are several restrictions, particularly working with PHBAs, in a home environment. Review the rules carefully to ensure the appropriate environment for the study being conducted.)

If the location is something other than home or school, it is likely that a Regulated Research Institution or Industrial Setting Form 2C will need to be completed. The 2C form helps inform not just the location of the research but what level of mentorship and guidance was given to the student from other individuals. The 2C should be completed after experimentation by the adult who supervised the project at that location.

#8: Start/End Dates: A project may only be one year in length and may not have started before January of the previous year. State when the actual experimental procedure (not the background literature review) will begin and end. The tentative start date should reflect your best sense of when experimentation will begin. The actual start and end dates should be the dates recorded in your lab notebook.

#9 Continuation Y/N: Any project conducted in a similar area of research as previous projects should be considered a continuation. If a student researcher is in doubt, they should indicate it is a continuation. Continuation Form 7 provides a format to describe the differences between this project and a prior project.

Student researchers should review the continuation rules and ensure that the project demonstrates significant progress (changes in the methodology and or more than running additional trials.) There are ethical considerations if a student says "no," and it is found through authenticity checks by fair officials that they have done research in the same or similar area.



Research Plan/Project Addendum

A Research Plan/Project Addendum is required for ALL projects. The plan must be written BEFORE experimentation.

RESEARCH PLAN/ PROJECT ADDENDUM INSTRUCTIONS

As has been covered in the Research Plan section of the Guide above, this document provides the instructions on the required elements of a student's research plan relative to the specific areas of research they will be conducting. This information can also be found in the Documentation section of the Humans, Vertebrate Animals, Potentially Hazardous Biological Agents, Tissues and Hazardous Chemicals, Activities and Devices areas of the International Rules.

The following is what the review body (IRB, SRC, etc.) will be emphasizing as they review the Research Plan (either as the pre-approval or in the review and approval just prior to competition):

Human Participants:

All projects involving human participants must demonstrate IRB pre-approval with the signatures of the 3 core members and their decisions clearly indicated on Form 4. In the research plan, look for information about participants (any risk groups), recruitment, methods, risks & benefits, protection of privacy (HIPPA & FRPA), and informed consent and parental permission for all projects involving students under age 18. (Participant knows what they are being asked to do, that they may withdraw at any time, there is no coercion, etc.).

Is the level of risk appropriate? What risk assessment was done? Should the study have written Consent/Permission/Assent? Is the survey attached?

Vertebrate Animals:
Most projects involving vertebrate animals require pre-approval by an SRC and if conducted at a Regulated Research Institution (RRI), an IACUC. In the research plan, pay particular attention to the detailed procedures and care of the animals in the research, if they looked for alternatives to animal research and the final disposition of the animals.

Other areas to consider: Any animal deaths due to experimental procedures, weight loss ≥15% in any group or subgroup, toxicity studies, studies designed to kill, studies which cause more than momentary pain or suffering, predator/prey, inappropriate water or food restriction, euthanasia by student, etc. Ensure that an allowable embryonic study didn't hatch and become a vertebrate study that is not permitted.

Potentially Hazardous Biological Agents:
Projects involving Potentially Hazardous Biological Agents require pre-approval and the appropriate laboratory setting. The source, quantity, and Biosafety Level (BSL) must be indicated for all microorganisms including established cell lines.

- Give source of the organism and describe BSL assessment process and BSL determination.
- Detail safety precautions and discuss methods of disposal.

In the research plan, the source of all organisms, the BSL-assessment process and determination as well as clearly indicated procedures to minimize risk should be addressed. Proper disposal methods must be listed.

An SRC will be reviewing the research plan to confirm the appropriate laboratory, laboratory conditions, supervision and safety equipment meet the biosafety level required for the study, including procedures to minimize risk must be clearly indicated.

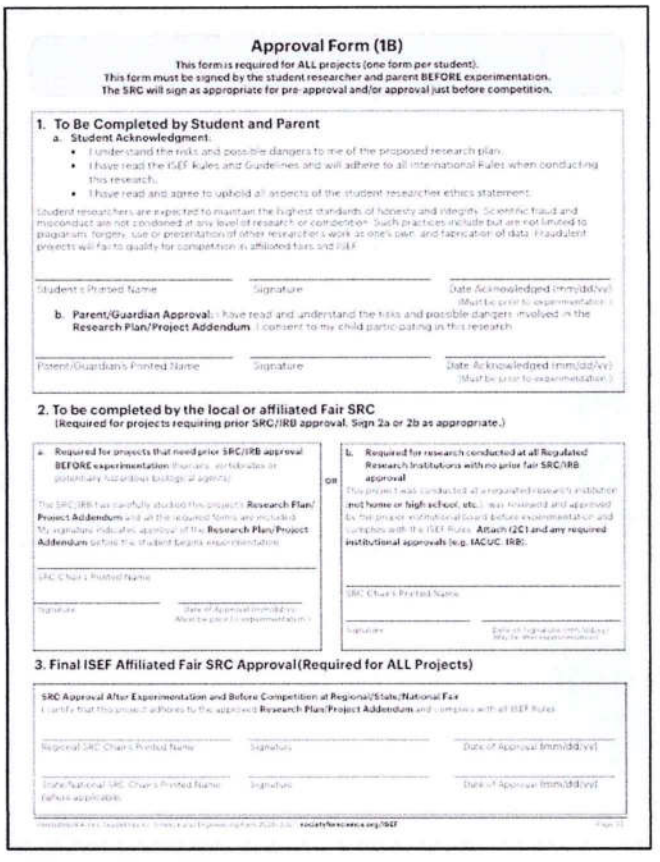
- Culturing of microorganisms may NOT be conducted at home
- If a petri dish or culture container with unknown or BSL-1 microorganisms is opened, it becomes a BSL-2 study and may only be conducted at a BSL-2 facility

Students and the adults supporting their projects should review the International Rules carefully to

ensure full compliance with the pre-approval and biosafety level requirements.

Hazardous Chemicals, Activities, or Devices: Most projects involving hazardous chemicals, activities or devices require a Risk Assessment Form 3; all projects are strongly recommended to complete a risk assessment to ensure the safety of the student researcher and all involved in a project.

In the research plan, the SRC will look for detailed descriptions of risks and safety precautions and procedures used including methods of disposal.



Approval Form (1B)

This form is required for ALL projects (one form per student).
This form must be signed by the student researcher and parent BEFORE experimentation.
The SRC will sign as appropriate for pre-approval and/or approval just before competition.

1. To Be Completed by Student and Parent

a. Student Acknowledgment

- I understand the risks and possible dangers to me of the proposed research plan.
- I have read the ISEF Rules and Guidelines and will adhere to all International Rules when conducting this research.
- I have read and agree to uphold all aspects of the student researcher ethics statement.

Student researchers are expected to maintain the highest standards of honesty and integrity. Scientific fraud and misconduct are not condoned at any level of research or competition. Such practices include but are not limited to plagiarism, forgery, use or presentation of other researcher's work as one's own, and fabrication of data. Fraudulent projects will fail to qualify for competition in affiliated fairs and ISEF.

Student's Printed Name | Signature | Date Acknowledged (mm/dd/yy) (Must be prior to experimentation.)

b. Parent/Guardian Approval: I have read and understand the risks and possible dangers involved in the Research Plan/Project Addendum. I consent to my child participating in this research.

Parent/Guardian's Printed Name | Signature | Date Acknowledged (mm/dd/yy) (Must be prior to experimentation.)

2. To be completed by the local or affiliated Fair SRC
(Required for projects requiring prior SRC/IRB approval. Sign 2a or 2b as appropriate.)

a. Required for projects that need prior SRC/IRB approval BEFORE experimentation (humans, vertebrates or potentially hazardous biological agents)

The SRC/IRB has carefully studied this project's Research Plan/Project Addendum and all the required forms are included. My signature indicates approval of the Research Plan/Project Addendum before the student begins experimentation.

SRC Chair's Printed Name

Signature | Date of Approval (mm/dd/yy) (Must be prior to experimentation.)

OR

b. Required for research conducted at all Regulated Research Institutions with no prior fair SRC/IRB approval

This project was conducted at a regulated research institution (not home or high school, etc.) was reviewed and approved by the proper institutional board before experimentation and complies with the ISEF Rules. Attach (2C) and any required institutional approvals (e.g. IACUC, IRB).

SRC Chair's Printed Name

Signature | Date of Signature (mm/dd/yy) (Must be prior to experimentation.)

3. Final ISEF Affiliated Fair SRC Approval (Required for ALL Projects)

SRC Approval After Experimentation and Before Competition at Regional/State/National Fair

I certify that this project adheres to the approved Research Plan/Project Addendum and complies with all ISEF Rules.

Regional SRC Chair's Printed Name | Signature | Date of Approval (mm/dd/yy)

State/National SRC Chair's Printed Name (where applicable) | Signature | Date of Approval (mm/dd/yy)

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APPROVAL FORM (1B)

The Approval Form 1B is what its name suggests – a form to present the signatures and attestations of understanding of the rules and the details of the project by those needing to sign-off on the project. These statements attest that each of these people (or committee) approves or consents to this project. Signatures must be obtained and dated as described below and are before experimentation unless otherwise indicated:

Student (Section 1A): Date they attest that they understand the possible risks, that they have read and will follow the rules, and that they will abide by the ethics statement.

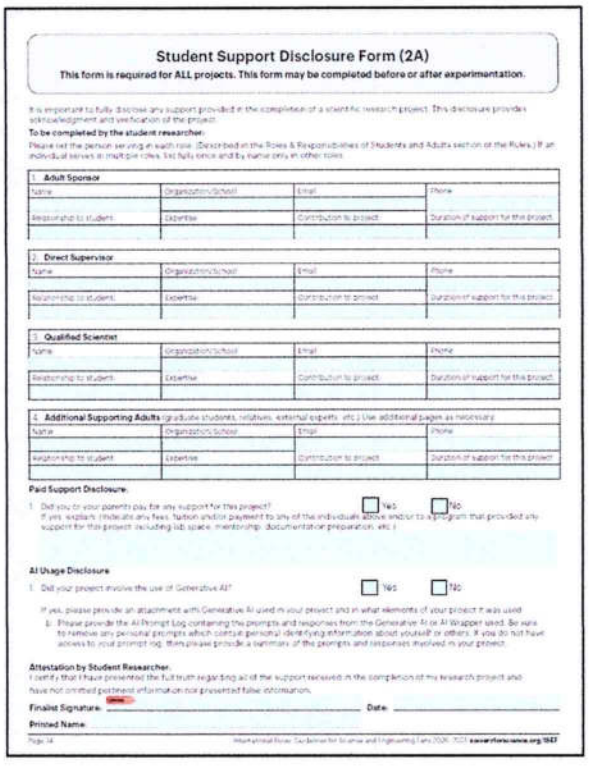
Parent/Guardian (Section 1B): Date they consent to their child doing this project and attest that they have reviewed the project and understand the risks involved.

SRC Approval BEFORE (Section 2A): Date that the affiliated fair SRC reviews this project BEFORE the experimentation. Projects that require preapproval should have this date in this first box.

SRC Approval AFTER (Section 2B): This applies only to projects that need pre-approval but were done at an RRI and were pre-approved by that institution instead of the affiliated fair SRC. The date signed indicates when the affiliated fair SRC approved this project after it was completed. All documentation from the research institution showing approval of the project must be attached.

Final SRC Approval (Section 3): All projects must be reviewed by the SRC after the experimentation is complete and shortly BEFORE competition in the affiliated fair. The date signed shows the date that SRC gives final approval to this project to compete at the initial affiliated fairs and if advancing to a state fair, there is an additional SRC approval line.

The SRC will review this document and its signatures as related to the Checklist (1) and Checklist (1A) and other forms completed.



Student Support Disclosure Form (2A)

This form is required for ALL projects. This form may be completed before or after experimentation.

It is important to fully disclose any support provided in the completion of a scientific research project. This disclosure provides acknowledgment and verification of the project.

To be completed by the student researcher:

Please list the person serving in each role. (Described in the Roles & Responsibilities of Students and Adults section of the Rules.) If an individual serves in multiple roles, list fully once and by name only in other roles.

1. Adult Sponsor

Name	Organization/School	Email	Phone
Relationship to student	Expertise	Contribution to project	Duration of support for this project

2. Direct Supervisor

Name	Organization/School	Email	Phone
Relationship to student	Expertise	Contribution to project	Duration of support for this project

3. Qualified Scientist

Name	Organization/School	Email	Phone
Relationship to student	Expertise	Contribution to project	Duration of support for this project

4. Additional Supporting Adults (graduate students, relatives, external experts, etc.) Use additional pages as necessary.

Name	Organization/School	Email	Phone
Relationship to student	Expertise	Contribution to project	Duration of support for this project

Paid Support Disclosure:

1. Did you or your parents pay for any support for this project? ☐ Yes ☐ No
   If yes, explain. (Indicate any fees, tuition and/or payment to any of the individuals above and/or to a program that provided any support for this project including lab space, mentorship, documentation preparation, etc.)

AI Usage Disclosure

1. Did your project involve the use of Generative AI? ☐ Yes ☐ No
   If yes, please provide an attachment with Generative AI used in your project and in what elements of your project it was used.
   a. Please provide the AI Prompt Log containing the prompts and responses from the Generative AI or AI Wrapper used. Be sure to remove any personal prompts which contain personal identifying information about yourself or others. If you do not have access to your prompt log, then please provide a summary of the prompts and responses involved in your project.

Attestation by Student Researcher:

I certify that I have presented the full truth regarding all of the support received in the completion of my research project and have not omitted pertinent information nor presented false information.

Finalist Signature: _____ Date: _____

Printed Name: _____

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STUDENT SUPPORT DISCLOSURE FORM (2A)

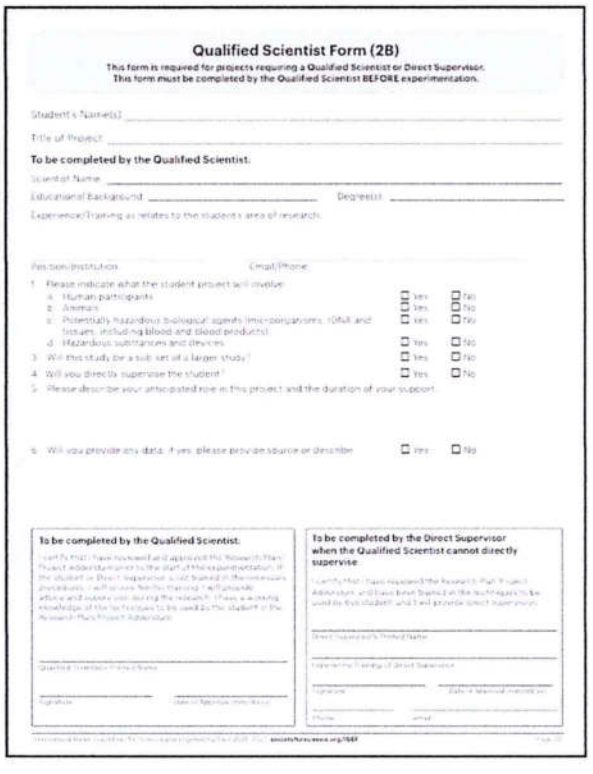
The Student Support Disclosure Form (2A) is new for 2027. The intent of this form is to disclose the full support that a student received while conducting the project.

This support includes all of the adults that may have played a supervising or advisory role as well as any paid support or the use of artificial intelligence (AI).

It is understood that this document may have additional pages attached as there may not be adequate space on the form itself for the responses required.

A student must fully disclose all of support provided to properly acknowledge and verify. Omission of support that was received can be perceived as ethical misconduct.

This form requests information about paid support as well as the use of generative AI. Please have students refer to the Rules for All Projects and the Ethics Statement to ensure that they are in compliance with the rules.



Qualified Scientist Form (2B)

This form is required for projects requiring a Qualified Scientist or Direct Supervisor.
This form must be completed by the Qualified Scientist BEFORE experimentation.

Student's Name(s): _____

Title of Project: _____

To be completed by the Qualified Scientist.

Scientist Name: _____

Educational Background: _____ Degree(s): _____

Experience/Training as relates to the student's area of research:

Position/Institution: _____ Email/Phone: _____

1. Please indicate what the student project will involve:
   a. Human participants ☐ Yes ☐ No
   b. Animals ☐ Yes ☐ No
   c. Potentially hazardous biological agents (microorganisms, DNA and tissues, including blood and blood products) ☐ Yes ☐ No
   d. Hazardous substances and devices ☐ Yes ☐ No
2. Will this study be a sub-set of a larger study? ☐ Yes ☐ No
3. Will you directly supervise the student? ☐ Yes ☐ No
4. Please describe your anticipated role in this project and the duration of your support.

5. Will you provide any data? If yes, please provide source or describe: ☐ Yes ☐ No

To be completed by the Qualified Scientist.

I certify that I have reviewed and approved the Research Plan/Project Abstract prior to the start of the experimentation. If the student or Direct Supervisor is not trained in the necessary procedures, I will ensure he/she receives adequate training. I will provide adult supervision during the research. I have a working knowledge of the risk factors to be used by the student in the Research Plan/Project Abstract.

_____

Qualified Scientist's Printed Name

_____ _____

Signature Date of Approval (mm/dd/yyyy)

To be completed by the Direct Supervisor when the Qualified Scientist cannot directly supervise.

I certify that I have reviewed the Research Plan/Project Abstract, and I have been trained in the techniques to be used by this student, and I will provide direct supervision.

_____

Direct Supervisor's Printed Name

_____

Relationship to Qualified Scientist

_____ _____

Signature Date of Approval (mm/dd/yyyy)

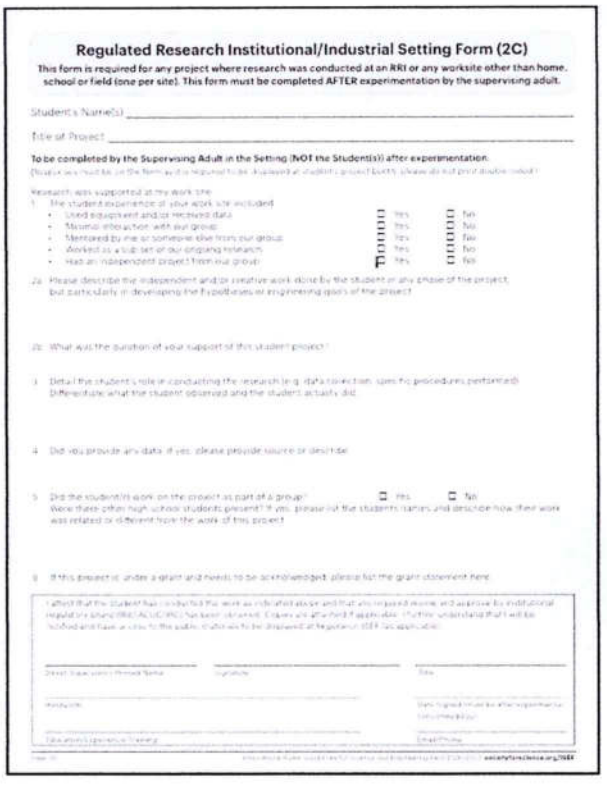
_____ _____

Phone Email

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QUALIFIED SCIENTIST FORM (2B)

The Qualified Scientist Form (2B) is to be completed by the scientist overseeing the project. On this form, the scientist will attest to their expertise, their understanding of the project and the rules and that they will be supervising the student. If they will not always be directly supervising, there is also a signature block for a Direct Supervisor (DS) that can sign with the date that they approve this project (before experimentation takes place).



Regulated Research Institutional/Industrial Setting Form (2C)

This form is required for any project where research was conducted at an RRI or any worksite other than home, school or field (one per site). This form must be completed AFTER experimentation by the supervising adult.

Student's Name(s) _____

Title of Project _____

To be completed by the Supervising Adult in the Setting (NOT the Student(s)) after experimentation.

REGULATED RESEARCH INSTITUTIONAL OR INDUSTRIAL SETTING FORM (2C)

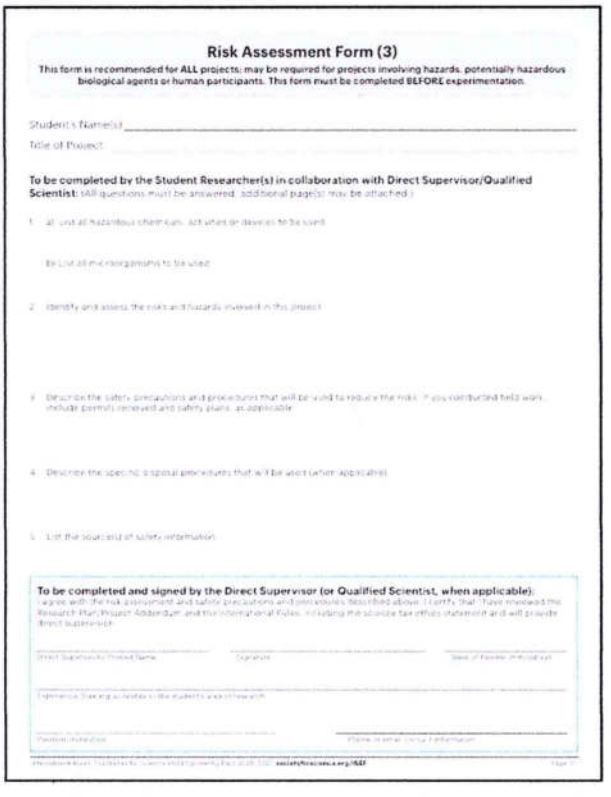
The Regulated Research Institutional or Industrial Setting Form (2C) is required if the research was done at a research institution (university lab, for example) or in an industrial setting. If students work at facilities other than their school or home a Form 2C may be needed to address the adult supervision at that location.

The supervising adult from the RRI or industrial setting should complete this form to provide information about what the student did, the supervision provided and how it relates to the work ongoing at the site.

If a student did not physically work at a research institution or industrial setting but received significant virtual mentorship from an adult at that site, that adult should complete a 2C. This provides the SRC with context for the adult's involvement and guidance.

This form is completed at the conclusion of the project as a summary and must not be filled out by the student. This form is posted so the judges can easily see exactly what the student did. All information must be on the form as the form is required to be posted at the project booth.

In a review of this form, the SRC will look for consistency of the adult mentor's responses in comparison to what the student has indicated on other forms or in the research plan. Statements on the 2C can indicate other students involved with the project (potential team issues) or provide explanation of multiple years of engagement (This could indicate that the study is too old, too long, or that the student is presenting multiple years of research or that it is a continuation.)



Risk Assessment Form (3)

This form is recommended for ALL projects; may be required for projects involving hazards, potentially hazardous biological agents or human participants. This form must be completed BEFORE experimentation.

Student's Name(s) _____

Title of Project

To be completed by the Student Researcher(s) in collaboration with Direct Supervisor/Qualified Scientist: (All questions must be answered. Additional page(s) may be attached.)

To be completed and signed by the Direct Supervisor (or Qualified Scientist, when applicable):

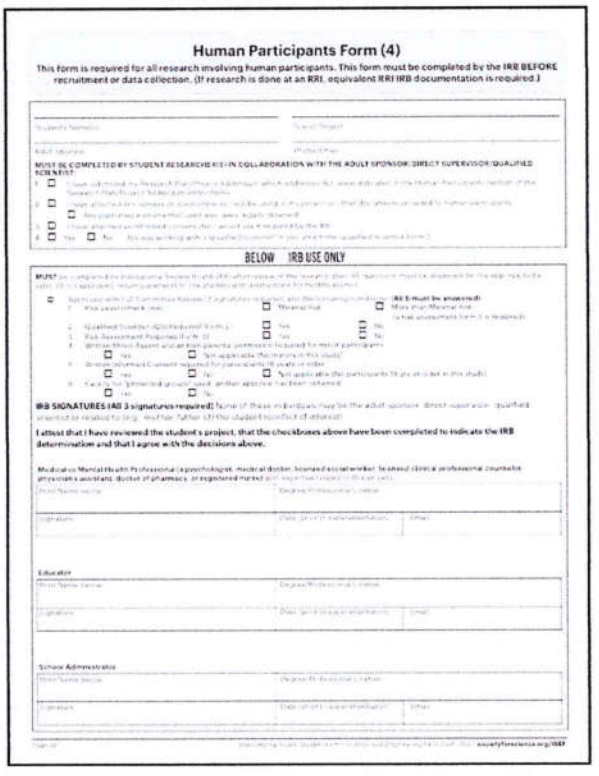
RISK ASSESSMENT FORM 3

This Risk Assessment Form 3 is required for hazardous chemicals, activities, or devices, and for PHBA projects and is recommended for all projects to address any potential risks and to provide safety precautions to take place. It must be signed by the Direct Supervisor (or Qualified Scientist) involved in the project.

All projects involve some level of risk and this form provides a chance for the student and any adults involved in the project, to discuss the importance of safety in science research and how to minimize risks.

The Risk Assessment Form 3 may include additional pages but should begin its responses on this form.

The SRC is looking for complete responses and that the safety precautions to be taken align with the organisms or hazards involved.



Human Participants Form (4)

This form is required for all research involving human participants. This form must be completed by the IRB BEFORE recruitment or data collection. (If research is done at an RRI, equivalent RRI IRB documentation is required.)

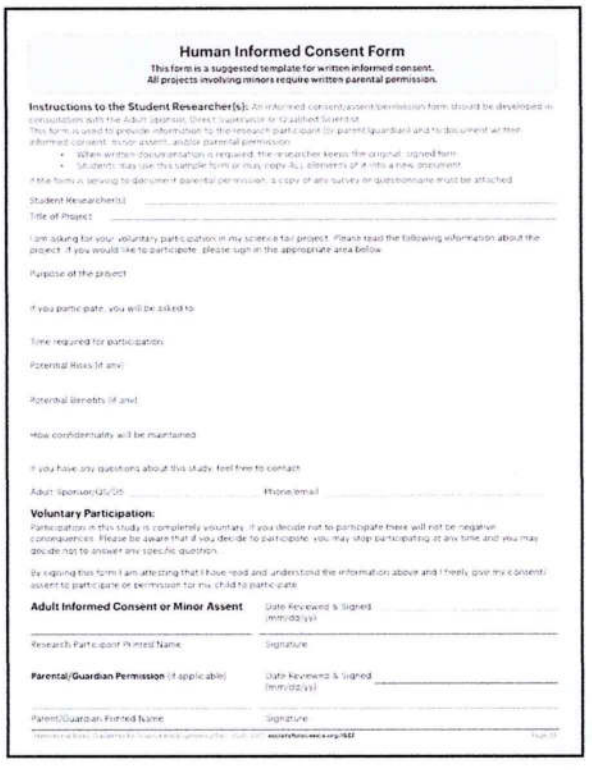
BELOW IRB USE ONLY

HUMAN PARTICIPANT FORM (4)

The Human Participant Form (4), along with the research plan, is submitted with the research plan which should explain to the IRB how the safety and well-being of the human participants and the confidentiality of results will be ensured. The IRB reviews the project, checks the risk level and determines if written documentation of assent/consent/ permission is required. All questions must be answered and boxes checked. Each IRB member signs with the date they approve this project. This review and the date signed must be **BEFORE** any recruitment and contact with participants or any experimentation takes place.

When required by the IRB and required for all projects involving participants under the age of 18, a written informed assent/consent/parental permission form is used to explain to the research participant and their parent/guardian the risks and benefits associated with participation. (See Human Informed Consent Form.) Any questionnaires, survey instruments, sample tests, etc. MUST be given to the IRB as part of their review and be provided to the parent/guardian for any human participants under 18. If the participant wishes to participate and when the participant is a minor, the parent/guardian also agrees, they each sign the Informed Consent Form with the date that they approve. (**Before** experimentation begins).

The SRC in reviewing Human Participant Form 4 is looking to ensure that it has been fully completed including decision checkmarks in the box and all 3 signatures. (Missing checkmarks or signatures indicates no documentation of prior review and therefore the project could fail to qualify; it is imperative that you confirm that the form that your student has actually indicates the final IRB review and approval.) All approval dates must be before research begins. (Start date on 1A.) The IRB should not include the adult sponsor, designated supervisor, qualified scientist or a relative (e.g. parent) of the student because of conflicts of interest.



Human Informed Consent Form

This form is a suggested template for written informed consent.
All projects involving minors require written parental permission.

Instructions to the Student Researcher(s):

Student Researcher(s):

Title of Project:

Purpose of the project:

If you participate, you will be asked to:

Time required for participation:

Potential Risks (if any):

Potential Benefits (if any):

How confidentiality will be maintained:

If you have any questions about this study, feel free to contact:

Adult Sponsor(s)/QS: Phone/email:

Voluntary Participation:

Adult Informed Consent or Minor Assent — Date Reviewed & Signed (mm/dd/yy)

Research Participant Printed Name — Signature

Parental/Guardian Permission (if applicable) — Date Reviewed & Signed (mm/dd/yy)

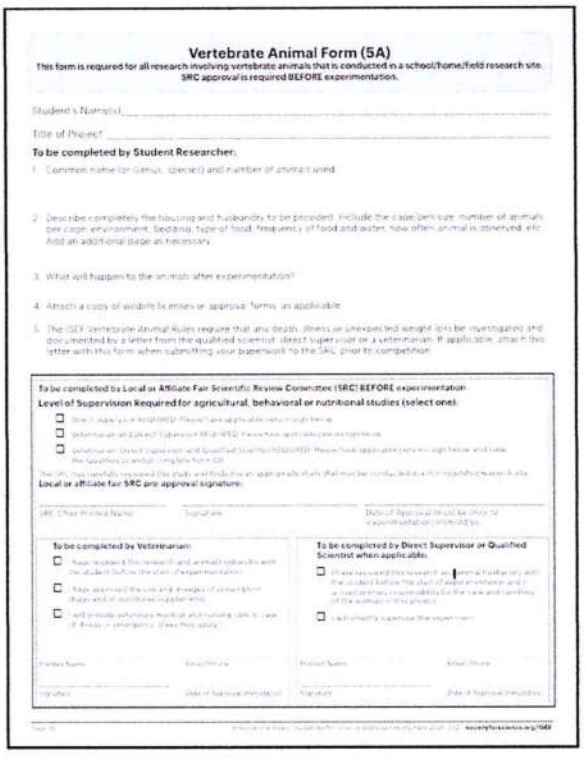
Parent/Guardian Printed Name — Signature

HUMAN INFORMED CONSENT FORM

As referenced above, this form provides the participant the information about the study for them (and their parent/guardian if they are under 18) to provide consent/assent.

The SRC will be reviewing the consent form for the following: A clear explanation of what the participant is being asked to do; how long it will take, the potential risks and steps that will be taken to mitigate risk, the benefits to the participant or to society, how confidentiality will be maintained, that it is completely voluntary and that they may withdraw at any time.

Adult participants sign giving their consent, minors give their assent, and parents of participants give permission. For each consent, the approval signatures must be before the research with that participant begins and after the IRB has approved the project via Human Participant Form 4.



Vertebrate Animal Form (5A)

This form is required for all research involving vertebrate animals that is conducted in a school/home/field research site. SRC approval is required BEFORE experimentation.

Student's Name(s)

Title of Project

To be completed by Student Researcher:

1. Common name for Genus, species) and number of animals used.

2. Describe completely the housing and husbandry to be provided. Include the cage/pen size, number of animals per cage, environment, bedding, type of food, frequency of food and water, how often animal is observed, etc. Add an additional page as necessary.

3. What will happen to the animals after experimentation?

4. Attach a copy of wildlife facilities or approval forms, as applicable.

5. The ISEF Vertebrate Animal Rules require that any death, illness or unexpected weight loss be investigated and documented by a letter from the qualified scientist, direct supervisor or a veterinarian. If applicable, attach this letter with this form when submitting your paperwork to the SRC prior to competition.

To be completed by Local or Affiliate Fair Scientific Review Committee (SRC) BEFORE experimentation

Level of Supervision Required for agricultural, behavioral or nutritional studies (select one):

☐ Direct Supervision REQUIRED. Please have applicable veterinarian or

☐ Veterinarian or Direct Supervision Required. Please have applicable veterinarian

☐ Veterinarian or Direct Supervision and Qualified Scientist REQUIRED. Please have applicable veterinarian sign below and have the Qualified Scientist complete Form 5B.

The SRC has carefully reviewed the study and finds it to be an appropriate study that may be conducted at a non-regulated research site.

Local or Affiliate Fair SRC pre approval signature:

SRC Chair Printed Name | Signature | Date of Approval (must be prior to experimentation) (mm/dd/yy)

To be completed by Veterinarian:

☐ I have reviewed this research and worked closely with the student before the start of experimentation.

☐ I have approved the use and dosages of anesthetics, analgesics and/or nutritional supplements.

☐ I will provide veterinary medical and nursing care in case of illness or emergency. (Fees may apply.)

Printed Name | Email/Phone

Signature | Date of Approval (mm/dd/yy)

To be completed by Direct Supervisor or Qualified Scientist when applicable:

☐ I have reviewed this research at [illegible] and the student before the start of experimentation and I assume primary responsibility for the care and handling of the animals in this project.

☐ I will directly supervise the experiment.

Printed Name | Email/Phone

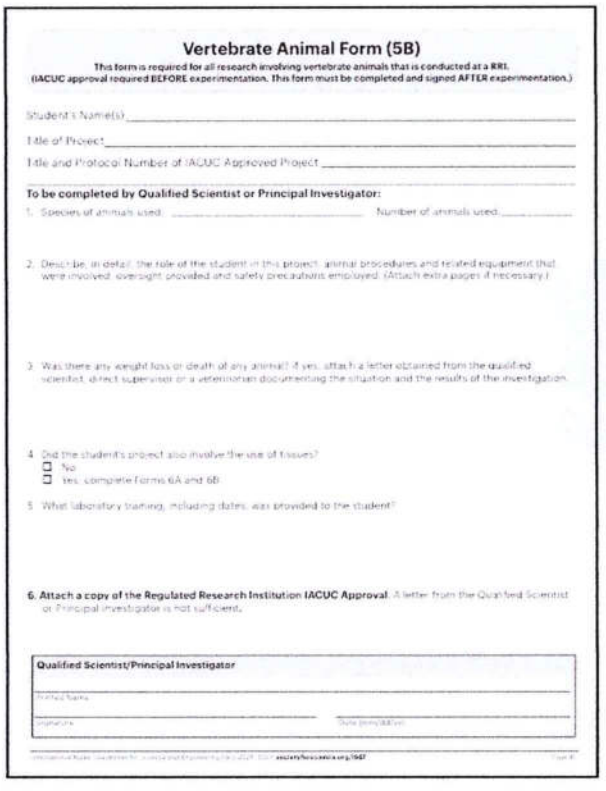
Signature | Date of Approval (mm/dd/yy)

VERTEBRATE ANIMAL FORM (5A)

The Vertebrate Animal Form 5A is required for projects involving vertebrate animals conducted in a Non-Regulated Research Site such as home or school. The student on this form provides a description of the animals to be used, the housing and care that the animals will receive and the final disposition of the animals. The SRC reviews this document and determines the level of supervision required for the study and signs and dates BEFORE experimentation begins. The bottom of the form is filled out by the veterinarian and/or direct supervisor and is signed and dated when they approve this project **before** experimentation begins. The timing of these signatures at the bottom of the form will likely be after the SRC determination.

If there was any illness, unexpected weight loss or death of an animal during the experimentation, the cause must be investigated and a letter from the Qualified Scientist, Direct Supervisor, or a veterinarian which documents the situation and the results of the investigation must be attached. If there were any deaths due to the experimental procedure, the project will fail to qualify.

All approval signatures must be obtained before research begins (Start date on 1A). Capture & Release approvals must be attached when applicable.



Vertebrate Animal Form (5B)

This form is required for all research involving vertebrate animals that is conducted at a RRI. (IACUC approval required BEFORE experimentation. This form must be completed and signed AFTER experimentation.)

Student's Name(s)

Title of Project

Title and Protocol Number of IACUC Approved Project

To be completed by Qualified Scientist or Principal Investigator:

1. Species of animals used: Number of animals used:

2. Describe, in detail, the role of the student in this project, animal procedures and related equipment that were involved, oversight provided and safety precautions employed. (Attach extra pages if necessary.)

3. Was there any weight loss or death of any animal? If yes, attach a letter obtained from the qualified scientist, direct supervisor or a veterinarian documenting the situation and the results of the investigation.

4. Did the student's project also involve the use of tissues?
☐ No
☐ Yes, complete Forms 6A and 6B

5. What laboratory training, including dates, was provided to the student?

6. Attach a copy of the Regulated Research Institution IACUC Approval. A letter from the Qualified Scientist or Principal Investigator is not sufficient.

Qualified Scientist/Principal Investigator

Printed Name

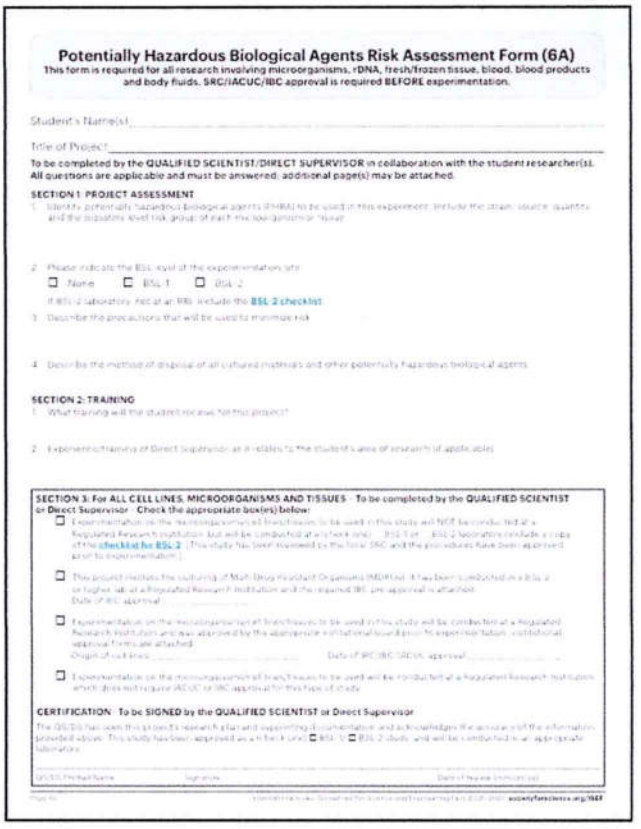
Signature | Date (mm/dd/yy)

VERTEBRATE-ANIMAL FORM (5B)

The Vertebrate Animal Form (5B) is filled out by the Qualified Scientist or Direct Supervisor at a Regulated Research Institution when the research is conducted at an RRI. The IACUC approval forms must be attached. This documentation must clearly cover the student's research study and must indicate that the study was approved before the start of the student research. Not all IACUC approval documentation will list the student individually, but the student research training must be indicated on the Form 5B. A letter from the Qualified Scientist or Principal Investigator indicating that the study had IACUC approval is not sufficient.

The SRC reviewing Vertebrate Animal Form (5B) and the research plan just prior to competition will review the methodology and confirm that the research did not cause more than momentary pain or suffering and that any use of anesthetics, analgesics and/or tranquilizers is documented.

Euthanasia by student researchers is prohibited so the final disposition of the animals must also be indicated. If there were any deaths due to the experimental procedure, the project will fail to qualify. If tissues were collected, how they were obtained and how they will be used must be described.-



Potentially Hazardous Biological Agents Risk Assessment Form (6A)

This form is required for all research involving microorganisms, rDNA, fresh/frozen tissue, blood, blood products and body fluids. SRC/IACUC/IBC approval is required BEFORE experimentation.

Student's Name(s)

Title of Project

To be completed by the QUALIFIED SCIENTIST/DIRECT SUPERVISOR in collaboration with the student researcher(s). All questions are applicable and must be answered; additional page(s) may be attached.

SECTION 1: PROJECT ASSESSMENT

1. Identify potentially hazardous biological agents (PHBA) to be used in this experiment. Include the strain, source, quantity, and the biosafety level/risk group of each microorganism/tissue.

2. Please indicate the BSL level of the experimentation site:
☐ None ☐ BSL-1 ☐ BSL-2
If BSL-2 laboratory, not at an RRI, include the BSL-2 checklist.

3. Describe the precautions that will be used to minimize risk.

4. Describe the method of disposal of all cultured materials and other potentially hazardous biological agents.

SECTION 2: TRAINING

1. What training will the student receive for this project?

2. Experience/training of Direct Supervisor as it relates to the student's area of research (if applicable)

SECTION 3: For ALL CELL LINES, MICROORGANISMS AND TISSUES - To be completed by the QUALIFIED SCIENTIST or Direct Supervisor - Check the appropriate box(es) below:

☐ Experimentation on the microorganism(s) or tissue/cells to be used in this study will NOT be conducted at a Regulated Research Institution, but will be conducted at a school, one (1) BSL-1 or two (2) BSL-2 laboratories (include a copy of the checklist for BSL-2). (This study has been reviewed by the local SRC and the procedures have been approved prior to experimentation.)

☐ This project involves the culturing of Main Drug-resistant Organisms (MDROs). It has been conducted in a BSL-2 or higher lab at a Regulated Research Institution and the required IBC pre-approval is attached.
Date of IBC approval: _____

☐ Experimentation on the microorganism(s) or tissue/cells to be used in this study will be conducted at a Regulated Research Institution and was approved by the appropriate institutional board (IACUC/IBC/institutional review) prior to experimentation. (Additional approval forms are attached.)
Origin of cell lines: _____ Date of IBC/IACUC approval: _____

☐ Experimentation on the microorganism(s) or tissue/cells to be used will be conducted at a Regulated Research Institution which does not require IACUC or IBC approval for this type of study.

CERTIFICATION - To be SIGNED by the QUALIFIED SCIENTIST or Direct Supervisor

The QS/DS has seen this project's research plan and supporting documentation and acknowledges the accuracy of the information provided above. This study has been approved as a ☐ BSL-1 ☐ BSL-2 study, and will be conducted in an appropriate laboratory.

Printed Name Signature Date of Approval (mm/dd/yyyy)

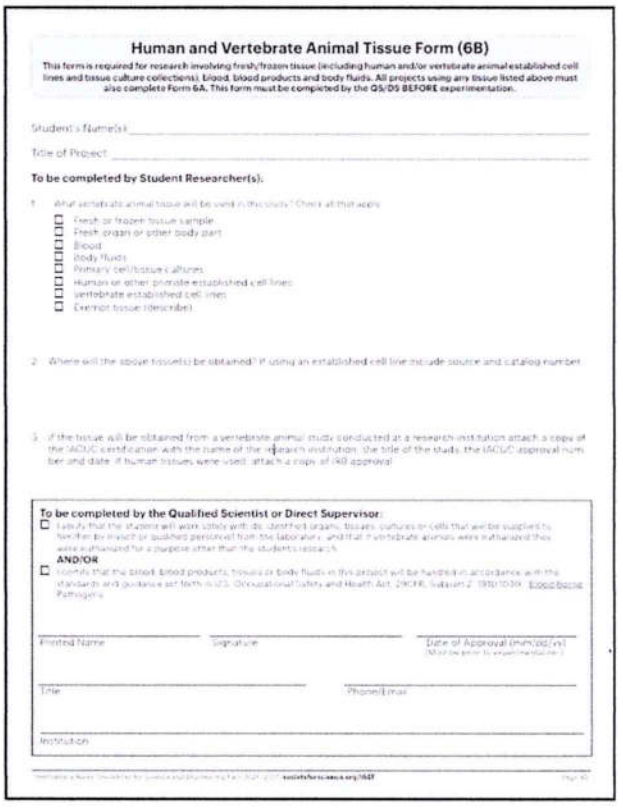
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POTENTIALLY HAZARDOUS BIOLOGICAL AGENTS (6A)

The Potentially Hazardous Biological Agents Form (6A) is completed by the student researcher and is required for all research involving microorganisms, rDNA and fresh/frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products, and body fluids. SRC/IACUC/IBC/RAC approval is required **BEFORE** experimentation.

The strain, source, quantity, and biosafety level of all biological agents being used in the study must be listed as well as an explanation of minimizing risk and the planned disposal methods of all materials. In section 3, the qualified scientist or direct supervisor will check-off where the study is taking place and what type of approval is needed. The Qualified Scientist or Direct Supervisor will then sign the document before experimentation acknowledging that the experiment will be conducted in an appropriate laboratory.

The SRC will review this form and the research plan to confirm all details, safety precautions and laboratory conditions are appropriate for the study.



Human and Vertebrate Animal Tissue Form (6B)

This form is required for research involving fresh/frozen tissue (including human and/or vertebrate animal established cell lines and tissue culture collections), blood, blood products and body fluids. All projects using any tissue listed above must also complete Form 6A. This form must be completed by the QS/DS BEFORE experimentation.

Student's Name(s)

Title of Project

To be completed by Student Researcher(s):

1. What vertebrate animal tissue will be used in this study? Check all that apply:
☐ Fresh or frozen tissue sample
☐ Fresh organ or other body part
☐ Blood
☐ Body fluids
☐ Primary cell/tissue cultures
☐ Human or other primate established cell lines
☐ Vertebrate established cell lines
☐ Exempt tissue (describe)

2. Where will the above tissue(s) be obtained? If using an established cell line include source and catalog number.

3. If the tissue will be obtained from a vertebrate animal study conducted at a research institution, attach a copy of the IACUC certification with the name of the research institution, the title of the study, the IACUC approval number and date. If human tissues were used, attach a copy of IRB approval.

To be completed by the Qualified Scientist or Direct Supervisor:

☐ I certify that the students will work solely with de-identified organs, tissues, cultures or cells that will be supplied to him/her by an expert or qualified person(s) from the laboratory, and that if vertebrate animals were euthanized they were euthanized for a purpose other than the student's research.
AND/OR
☐ I certify that the blood, blood products, tissues or body fluids in this project will be handled in accordance with the standards and guidance set forth in U.S. Occupational Safety and Health Act, 29CFR, Subpart Z, 1910.1030, Bloodborne Pathogens.

Printed Name Signature Date of Approval (mm/dd/yyyy)
(Must be prior to experimentation.)

Title Phone/Email

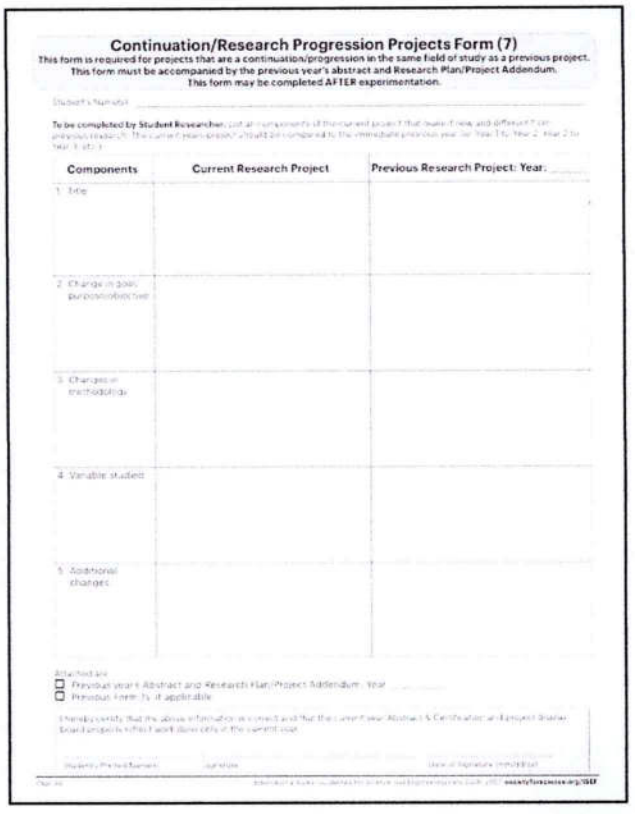
Institution

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HUMAN & VERTEBRATE ANIMAL TISSUE (6B)

The Human and Vertebrate Animal Tissue Form (6B) is required for all projects involving tissue and must be accompanied by PHBA Form 6A. This form is filled out by the student researcher and explains the source of the tissue. The Qualified Scientist or Direct Supervisor signs and dates to document the source and handling of this tissue (**before** experimentation).

The SRC is reviewing Forms 6A and 6B as well as the research plan to understand the source of the tissues, that the appropriate approvals are in place and that research was conducted in the appropriate laboratory setting with the proper Biosafety Level conditions.



Continuation/Research Progression Projects Form (7)

This form is required for projects that are a continuation/progression in the same field of study as a previous project.
This form must be accompanied by the previous year's abstract and Research Plan/Project Addendum.
This form may be completed AFTER experimentation.

Student's Name(s): _____

To be completed by Student Researcher: List all components of the current project that have/will be new and different from previous research. The current research should be compared to the immediate previous year (ie: Year 1 to Year 2, Year 2 to Year 3, etc.).

Components	Current Research Project	Previous Research Project: Year: _____
1. Title		
2. Change in goal, purpose/objective		
3. Changes in methodology		
4. Variable studied		
5. Additional changes		

Attached are:
☐ Previous year's Abstract and Research Plan/Project Addendum. Year _____
☐ Previous Form 7s, if applicable

I hereby certify that the above information is correct and that the current year Abstract & Continuation and Research Plan/Project Addendum reflect work done only in the current year.

Student Researcher _____ Date _____ Date of Signature (mm/dd/yy) _____

Form 7 | [illegible] | societyforscience.org/ISEF

CONTINUATION PROJECTS FORM (7)

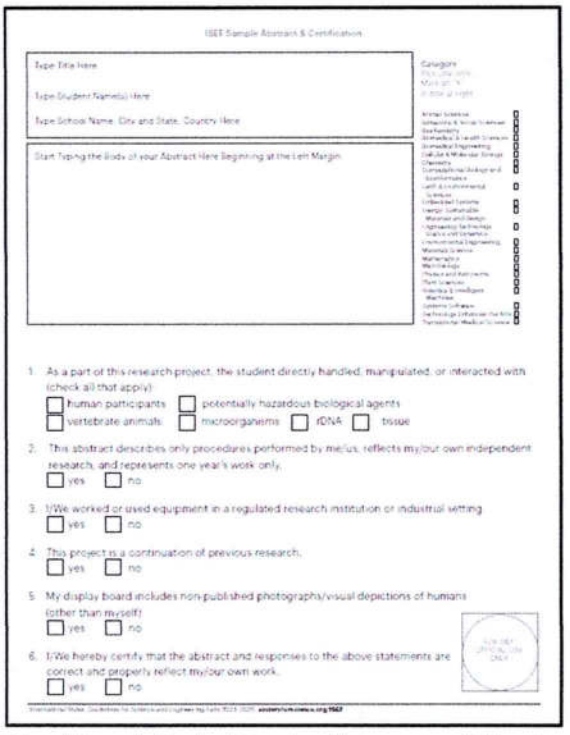
The Continuation Form (7) is required for projects that are in a similar area of research as any previous project of the student or any team member. Similar projects do not have to have been conducted in the most immediate prior year or entered into competition; if the student researcher has done a previous project, they should complete the Continuation Form (7). This includes a project begun in middle school. Student researchers must describe thoroughly how the project is different from previous experimentation. The date signed is the date the student researcher is certifying that this information is correct.

This form is posted with the project so that the judges can tell at a glance exactly what was new and different about this year's study. All information must be on the form, not on attached pages. Because research projects may only be one year's work, they will be judged on the current work only not on previous work, and this form is used to document current vs. previous research.

Frequently, students don't wish to call their project a continuation, but it's good research to continue a line of investigation even when the focus is now totally different. If the study is in the same field, if anything they learned in a previous year helped with the current study, or if the current study refers to any earlier research, then it is a continuation and Form 7 and previous abstract and research plan are required. If it is a multi-year continuation, a Form 7 is required for each previous year, as well as the most recent year's abstract and research plan.

Repetition of a previous study that reflects no changes but simply retests or increases sample size is not permitted. A longitudinal study, in which time is a critical variable, is permitted but the original data from previous years cannot be presented only the comparison between years.

The SRC will be reviewing and comparing the current research plan with the prior year's documentation as well as the descriptions of differences on the form to verify that this year's project reflects significant change.



ISEF Sample Abstract & Certification

Type Title Here

Type Student Name(s) Here

Type School Name, City and State, Country Here

Start Typing the Body of your Abstract Here Beginning at the Left Margin

Category

1. As a part of this research project, the student directly handled, manipulated, or interacted with (check all that apply):
☐ human participants ☐ potentially hazardous biological agents
☐ vertebrate animals ☐ microorganisms ☐ rDNA ☐ tissue

2. This abstract describes only procedures performed by me/us, reflects my/our own independent research, and represents one year's work only.
☐ yes ☐ no

3. I/We worked or used equipment in a regulated research institution or industrial setting.
☐ yes ☐ no

4. This project is a continuation of previous research.
☐ yes ☐ no

5. My display board includes non-published photographs/visual depictions of humans (other than myself).
☐ yes ☐ no

6. I/We hereby certify that the abstract and responses to the above statements are correct and properly reflect my/our own work.
☐ yes ☐ no

Checkbox 1. Project involved human participants, vertebrate animals, or PHBA's. Requires preapproval and additional forms. Exempt studies do not check this box.

- Human Participants: Does the study mention people, interviews, responses, answers, consent, etc? (requires Form 4). Exempt studies include prototype/invention testing if only done by student researcher, public data review, some observational studies. All others require IRB preapproval.
- Animals: Look for indications of type of study and research site. Strictly observational studies with no interaction are exempt. Tissue studies in which the student is given the tissue and did not interact with the animal do not need animal forms but will still need preapproval as a PHBA tissue study.
- Projects may be conducted at home, school, or field ONLY IF the study involved agricultural, behavioral, observational, or supplemental nutrition AND was non-invasive AND had no negative effects on health and wellbeing (requires Form 5A).
- Projects must be conducted at research institution with IACUC preapproval in all other cases (requires Form 5B).
- PHBA's Study included microorganisms, rDNA, or fresh/frozen tissue, blood, body fluids. Used terms like culturing, plating, tissue, source of tissue, etc.

Checkbox 2. Abstract should only reflect the work of the student researcher and not the mentor's. If this is marked "yes," further review may be required to ensure that a rewrite and a "no" response is not more appropriate.

Checkbox 3. Worked at a Regulated Research Institution or Industrial Setting. (Requires 1C)

OFFICIAL ABSTRACT

At the conclusion of the project, a 250-word abstract is to be written to summarize the research study. It should be written by the student using their own words (and not written using AI or plagiarizing language from their literature review.)

It is recommended that the abstract include the following:

- purpose of the experiment
- procedure/methodology used
- most important/significant results you found
- conclusions/research applications.

Only minimal reference to previous work may be included. Students must avoid including the following:

a. acknowledgments (including naming the research institution and/or mentor with which you were working), or self-promotions and external endorsements
b. logos or proper names of commercial products
c. work or procedures done by the mentor

Students must then answer the six questions at the bottom of the Abstract Form.

The SRC will use the checkboxes on the abstract to verify key areas of the student research project and what documentation they can expect to see.

- Was the study done at a Regulated Research Institute/Industrial Setting (RRI)?
- Is the terminology or equipment very sophisticated? Look for possible RRI. (Form 1C)

Checkbox 4. Project is a continuation. (Requires Form 7, previous abstract & research plan)

- Does this appear to be a Continuation? Any mention of previous research? Uses terms like previously, earlier research, improved, redesigned, year 3, etc. (Form 7)
- Any discussion of a Partner in a non-team study? Uses "we" consistently (the use of "we" can be a form of scientific writing and does not always indicate a group). Form 1C answers this question for studies done at an RRI or industrial setting.

Checkbox 5. Display Board images of other humans requiring consents

- If a student has other humans depicted, it is possible that they used human participants and will require IRB approval. However this is primarily to address having proper photo permissions and consents on the display.

Checkbox 6. Certification that the project is their independent work

- This is another attestation at the conclusion of the project that the student researcher(s) has presented their own work and is in compliance with the Ethics Statement.

Pre-Approval Prior to Experimentation

INDEX

Scientific Review Committee (SRC)
Institutional Review Board (IRB)
Regulated Research Institution

Many research projects require review and approval prior to experimentation. This review and approval process is provided by several committees that are formed with the appropriate expertise to properly assess the research being planned and to guide the final plan to ensure the safety of the student researcher, any human participants and/or vertebrate animals. If your project works with human participants, vertebrate animals or tissues or potentially hazardous biological agents, it will require pre-approval by the appropriate committee. What follows is an explanation of each committee and its potential role.

THE AFFILIATED FAIR SCIENTIFIC REVIEW COMMITTEE (SRC)

A Scientific Review Committee (SRC) is a group of qualified individuals that is responsible for evaluation of student research, certifications, research plans and exhibits for compliance with the rules, applicable laws and regulations at each level of science fair competition. Affiliated Fairs may authorize local SRCs to serve in this prior review capacity. The operation and composition of the local and Affiliated Fair SRCs must fully comply with the International Rules. Directions for obtaining preapproval are available from the affiliated fair. A list of fairs is at: https://findafair.societyforscience.org/.

Most proposed research projects involving vertebrate animals and/or potentially hazardous biological agents must be reviewed and approved BEFORE experimentation. Local or regional SRC prior review is not required for human studies previously reviewed and approved by a properly constituted IRB.

ALL projects, including those previously reviewed and approved by an IRB must be reviewed and approved by the SRC after experimentation and before competition in an Affiliated Fair. Projects which were conducted at a Regulated Research Institution, industrial setting or any work site other than home, school or field and which were reviewed and approved by the proper institutional board before experimentation, must also be approved by the Affiliated Fair SRC.

An SRC must consist of a minimum of three persons, including the following:

- a biomedical scientist with an earned graduate degree
- an educator
- at least one additional member

Additional expertise: Many project evaluations require additional expertise (e.g., on biosafety and/or of human risk groups). If the SRC needs an expert as one of its members and one is not in the immediate area, all documented contact with an external expert must be submitted. If animal research is involved, at least one member must be familiar with proper animal care procedures. Depending on the nature of the study, this person can be a veterinarian or animal care provider with training and/or experience in the species being studied.

To avoid conflict of interest, no Adult Sponsor, parent or other relative of the student(s), the Qualified Scientist, or the Direct Supervisor who oversees the project may serve on the SRC reviewing that project. Additional members are recommended to diversify and to increase the expertise of the committee.

A Scientific Review Committee (SRC) examines projects for the following:

- Evidence of proper supervision
- Completed forms, signatures, research dates, and preapproval dates (when required)
- Evidence of proper team composition
- Compliance with rules and laws governing human and/or animal research and research involving potentially hazardous biological agents and/or hazardous chemicals, activities or devices
- Compliance with ISEF ethics statement
- Use of accepted and appropriate research techniques
- Evidence that risks have been properly assessed
- Evidence of search for alternatives to animal use
- Humane treatment of animals
- Documentation of substantial expansion for continuation projects
- Evidence of appropriate literature search and attribution

For projects requiring prior SRC/IRB review, the SRC should deliberate, resulting in one of the following decisions:

- Approval of research done at home, school or field. If a project is approved, the SRC Chair signs the box in #2a on the Approval Form (1B). The approved forms should be returned to students as soon as possible, so that they can begin experimentation.

- Approval of research done at all Regulated Research Institutions with no prior fair SRC/IRB approval: If the project was conducted at a regulated research institution and was reviewed and approved by the proper institutional board before experimentation and complies with ISEF rules, sign box #2b on the approval Form (1B). Attach (1C) and any required institutional approvals (e.g. IACUC, IRB).
- Disapproval: The SRC Chair should provide the student and sponsor with a list of reasons for disapproval and suggestions for changes needed for approval. If suitable corrections are made, the revised project forms should be re- reviewed. If the revised project is then approved, the student and sponsor should be notified immediately so that the student can begin experimentation.

SRC Review Shortly Before Competition

- An SRC is required to reconvene before the fair to review supporting documentation of all projects prior to competition. The SRC chair will document this approval by signing #3 at the bottom of Approval Form (1B).
- Projects requiring pre-approval that were conducted at a Regulated Research Institution and were approved by the institution's approval bodies (IACUC, IRB, etc.) should be reviewed by the SRC to ensure documentation demonstrates pre-approval and compliance with the ISEF rules. If this review satisfies the pre-approval and compliance with the rules, the SRC chair will sign the box in #2b to indicate approval.

For Human Participant Projects Review –

THE INSTITUTIONAL REVIEW BOARD (IRB)

An Institutional Review Board (IRB), is a committee that, according to federal regulations (45-CFR-46), must evaluate the potential physical and/or psychological risk of research involving humans. All proposed human research must be reviewed and approved by an IRB before experimentation begins. This includes review of any surveys or questionnaires to be used in a project.

Federal regulations strongly recommend local community involvement. Therefore, it is advisable that an IRB be established at the school level to evaluate human research projects. If necessary, the local or ISEF-affiliated SRC can serve as an IRB as long as it has the required membership. A School IRB must consist of a minimum of three members including the following:

- An educator
- A school administrator (preferably principal or vice principal)
- A medical or mental health professional. The medical or mental health professional may be a medical doctor, nurse practitioner, physician's assistant, doctor of pharmacy, registered nurse, psychologist, licensed social worker or licensed clinical professional counselor. The medical or mental health professional on the IRB may change depending on the nature of the study. This person must be knowledgeable about and capable of evaluating the physical and/or psychological risk involved in a given study.

Additional Expertise: If an expert is not available in the immediate area, documented contact with an external expert is recommended. A copy of all correspondence with the expert (e.g. emails) must be attached to Form 4 and can be used in lieu of the signature of that expert.

To avoid conflict of interest, no Adult Sponsor, parent or other relative of the student, the Qualified Scientist, or Direct Supervisor who oversees the project, may serve on the IRB reviewing that project. Additional members are recommended to help avoid a potential conflict of interest and to increase the expertise of the committee.

IRBs exist at federally Regulated Research Institutions (e.g., universities, medical centers, NIH, correctional facilities). Prisoner advocates must be included on the IRB when research participants are incarcerated. The institutional IRB must initially review and approve all proposed research conducted at or sponsored by that institution. The Adult Sponsor and the local IRB are responsible for ensuring that the project is appropriate for a pre-college student and adheres to ISEF rules.

An IRB is responsible for assessing risk and documenting the determination of risk level on Human Participant Form 4. However, in reviewing projects just prior to a fair, if the SRC serving at that level of competition judges an IRB's decision as inappropriate, thereby placing human participants in jeopardy, they may override the IRB's decision and the project may fail to qualify for competition. It is advised that IRBs consult with the local or affiliated fair SRCs and/or with ISEF SRC in questionable cases.

COMBINED SRC/ IRB COMMITTEE

A combined committee is allowed as long as the membership meets both the SRC and IRB requirements listed above.

REGULATED RESEARCH INSTITUTION

A Regulated Research Institution within the U.S. is defined as a professional research/teaching institution that is regularly inspected by the USDA and is licensed to use animals covered by the Animal Welfare Act and may also be subject to U.S. Public Health Service Policy. Also included are all federal laboratories such as National Institutes of Health, Veteran's Affairs Medical Centers and the Centers for Disease Control. In addition, pharmaceutical and biotechnology companies and research institutions that utilize research animals that are not covered by the Animal Welfare Act but have an operational Institutional Animal Care and Use Committee and are in compliance with U.S. federal laws are included in this definition. For projects conducted outside of the United States, a Regulated Research Institution would be a comparable research institution that adheres to country laws governing the care and use of vertebrate animals.

Certain areas of research conducted in a regulated research institution or an industrial setting require review and approval by federally mandated committees that have been established at that institution. These committees include:

- Institutional Animal Care and Use Committee (IACUC); Animal Care and Use Committee (ACUC); Animal Ethics Committee
- Institutional Review Board (IRB); Human Subjects Participant Program (HSPP)
- Institutional Biosafety Committee (IBC)
- Embryonic Stem Cell Research Oversight Committee (ESCRO)
- Safety Review Committee
- Radiation Safety Committee

Independent or private laboratories, such as those established to support student researchers do not meet the requirements of oversight or committee infrastructure to be considered Regulated Research Institutions (RRI). Therefore, such laboratories should be considered the same as high school laboratories as it pertains to the International Rules and the types of projects able to be conducted in those settings. For purposes of documentation, such facilities must complete the Regulated Research Institution/Industrial Setting Form 1C to address the adult supervision and conditions of research.

THE ISEF SCIENTIFIC REVIEW COMMITTEE (REGENERON ISEF SRC)

All projects are reviewed by ISEF Scientific Review Committee prior to competition. ISEF SRC is the final arbiter of the qualification of students to participate in ISEF. Before the fair, committee members review research plans and all required forms to confirm that applicable ISEF rules have been followed. ISEF SRC may request additional information from students prior to ISEF or may interview potential ISEF participants at the fair to ensure that they qualify to compete.

ISEF SRC, like an Affiliated Fair SRC, is made up of adults knowledgeable about research regulations. In addition to the review of all projects at ISEF, committee members answer questions about the rules throughout the year from students and teachers. The ISEF SRC can be contacted at SRC@societyforscience.org.

Specialized Areas of Research
Protecting the Environment

Do no harm. This is a core principle of many tenets of science and engineering and is embedded into the International Rules' Ethics Statement:

Stewardship of the Environment. It is the responsibility of the researcher and the adults involved to protect the environment from harm. Introduction or disposal of non-native, genetically-altered, and/or invasive species, (e.g. insects, plants, invertebrates, vertebrates), pathogens, toxic chemicals or foreign substances into the environment is prohibited. It is recommended that students reference their local, state or national regulations and quarantine lists for appropriate collection, handling and disposal procedures.

As students begin to develop a research project and to write their research plan, it is important that they consider any potential impacts on the environment and mitigate any risks as they conduct their risk assessment.

The International Rules address the environment throughout the rules. Here are a few key examples:

- All projects must follow local, state, national and international regulations and laws. Many such laws require permits or licenses or prohibit actions that will harm the environment.
- Introduction or disposal of non-native, genetically altered, and/or invasive species (e.g. insects or other invertebrates, plants, vertebrates), pathogens, toxic chemicals or foreign substances into the environment is prohibited. Students and adult sponsors should reference their local, state and national regulations and quarantine lists for appropriate collection, handling, and disposal procedures.
- All local, state and national laws and permit requirements must be followed regarding the transport and use of microorganisms such as, but not limited to the Asian citrus psyllid (ACP) which spreads citrus greening or tobacco mosaic virus, etc.
- Disposal procedures shall be described in sufficient detail to ensure compliance with EPA Guidelines as outlined in the appropriate Safety Data Sheets. Examples include minimal quantities of chemicals that will require subsequent disposal; ensuring that all disposal is done in an environmentally safe manner. Proper chemical, sharps and other hazardous materials disposal must follow local, state, and federal guidelines.

FIELD WORK SAFETY PLAN

Scientists who study environmental topics plan their field studies very carefully. This allows them to make the minimal impact on the environment and to ensure their safety while conducting the study. Students and teachers should also make a plan before undertaking any field work. What items need to be packed for your safety if your time in the field is extended? Do you have food, water and first aid materials? Make sure that you let people know where you will be working and when to expect your return. Do you have a means of getting help in an emergency? Environmental work can involve a myriad of topics and questions. Make sure that your plan addresses the specific environmental concerns and safety measures for your topic.

The following table, excerpted from the **Field Work Safety Plan**, provides some of the key details that should be included in a student's research plan if field work is planned:

Three key considerations in planning for field work:

- **Encountering Harmful Algal Blooms (HABs).** Harmful Algal Blooms can occur in fresh, salt, or brackish water. They occur when colonies of microorganisms grow out of control. Not all blooms produce toxins, but the toxins produced are harmful to humans, aquatic life, and pets. Students should consult local and state resources to confirm that the body of water being explored has no bloom active at the time of planned water sample collection. As of the 2026-2027 International Rules, students are prohibited from collecting water samples during a Harmful Algal Bloom (HAB). Qualified personnel may collect water samples during an HAB and provide the student with the samples for testing. Testing of water collected during an HAB must be done in a BSL-2 lab, under BSL-2 conditions.
- **Cross contamination prevention**: If a project involves sampling or visiting several different locations, prior to going into the field it is important to consider how your sampling methodology, equipment and even PPE will not cross-contaminate either the environments that you are entering or the samples you are gathering. What steps will be taken to minimize the chance of cross contamination? Ex: Decontamination by rinsing shoes worn during collection before leaving collection site.

- **Transport of samples:** Similar to the cautions necessary to collect the samples, how to store and transport the samples must be considered. Samples suspected to be contaminated need to be placed in separate containers for transport to a testing facility. They need to be secured so spillage doesn't occur.

Testing/Collection	Yes	No	Concerns to be addressed in the Research Plan
Soil sampling			Transport, testing facility, cross contamination prevention.
Water sampling			Are water test kits used? What happens to water samples? Transport, testing facility, cross contamination prevention.
Air sampling			Device and method to be used
Device deployment			Time period of deployment. Environmental impact
Chemicals			Disposal. Personal safety. Environmental impact. Review of SDS planned.
Microorganism collection			BSL2 for all unknowns. Transport, testing facility, cross contamination prevention.
Plant collection			Specify if invasive/toxic or if specimen carries invasive/toxic agents. Follow all state/federal transportation, relocation, and disposal laws. Cross contamination prevention

The **Field Work Safety Plan** is meant to help students and teachers in developing a safe, environmentally responsible project. It should be reviewed with the research plan before starting your field work. It's loosely based on the requirements for scientists who collect air, water, and/or soil samples in the field.

HUMAN PARTICIPANTS

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Human Participants & IRB Resources
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Special Discussion on Apps; Machine Learning/Modeling

HUMAN PARTICIPANT & IRB RESOURCES

Use this information to help determine the level of risk involved in a study involving human participants.

All human participant projects are considered to have some level of risk.

- No more than minimal risk exists when the probability and magnitude of harm or discomfort anticipated in the research are not greater (in and of themselves) than those ordinarily encountered by a potential participant in everyday life or during performance of routine physical or psychological examinations or tests.
- More than minimal risk exists when the possibility of physical or psychological harm or harm related to breach of confidentiality or invasion of privacy is greater than what is typically encountered in everyday life. Most of these studies require documented informed consent.
- All projects involving students under 18 will always require minor assent with the permission of parent or guardian.

Examples of Greater than Minimal Physical Risk

- Exercise other than ordinarily encountered in everyday life.
- Ingestion, tasting, smelling, or application of a substance. However, ingestion or tasting projects that involve commonly available food or drink will be evaluated by the IRB which determines risk level based upon the nature of the study and local norms.
- Exposure to any potentially hazardous material.

Examples of Greater than Minimal Psychological Risk

- A research activity (e.g. survey, questionnaire, viewing of stimuli) or experimental condition that could potentially result in emotional stress. Some examples include: answering questions related to personal experiences such as sexual or physical abuse, divorce, depression, anxiety; answering questions that could result in feelings of depression, anxiety, or low self esteem; or viewing violent or distressing visual images.

Privacy Concerns

The student researcher and IRB must consider whether an activity could potentially result in negative consequences for the participant due to invasion of privacy or breach of confidentiality. Protecting confidentiality requires measures to ensure that identifiable research data are not disclosed to the public or unauthorized individuals.

Risk level can be reduced by protecting confidentiality or collecting data that is strictly anonymous. This requires the collection of research in such a way that it is impossible to connect research data with the individual who provided the data.

Risk Groups

If the research study includes participants from any of the following groups, the IRB and student research must consider whether the nature of the study requires special protection or accommodation:

- Any member of a group that is naturally at-risk (e.g. pregnant women, developmentally disabled persons, economically or educationally disadvantaged persons, individuals with diseases such as cancer, asthma, diabetes, AIDS, dyslexia, cardiac disorders, psychiatric disorders, learning disorders, etc.)
- Special groups that are protected by federal regulations or guidelines (e.g. children/minors, prisoners, pregnant women, students receiving services under the Individuals with Disabilities Education Act (IDEA).

If the risk is more than minimal, a Risk Assessment Form 3 is required.

GUIDELINES FOR ONLINE SURVEY CONSENT PROCEDURES

Online surveys require **Informed Consent** (from human research participants age 18 and older) and **Minor Assent** (from participants under age 18). Additionally, minor participants will require **documentation of Parental Permission.**

All information required in a consent form (e.g., voluntary nature of participation, what participation entails, risks, etc.) must be presented to the participants (and as applicable the parents) before they begin the survey.

- Due to privacy risks inherent in online research, the following statement or something similar should be included: There is always the possibility of tampering from an outside source when using the internet for collecting information. While the confidentiality of your responses will be protected once the data are

downloaded from the internet, there is always a possibility of hacking or other security breaches that could threaten the confidentiality of your responses. Please know that you are free to decide not to answer any question.

The survey should be set up in a way that the potential participant must click on a 'button' or type in a response indicating that he/she/they has read the consent/assent information (as described in 1 above) and agrees to participate. Once the 'button' is selected, the potential participant will be directed to the research survey questionnaire. That is, the survey questions are not viewed by participant until he/she/they clicks on or types in a response to indicate his/her/their voluntary participation.

- All questions must be voluntary for the survey participants to complete; there cannot be required questions.
- Parental permission must be obtained for all participants under the age of 18 and must be collected prior to the participant receiving access to the survey.

The following procedures should be used to protect confidentiality of downloaded data:

- If IP addresses are collected by the survey tool, the addresses should be deleted from the downloaded data file. All responses should then be deleted from the online survey. The resulting data file that is used for data analysis should be free of any identifiers, including IP addresses or other electronic identifiers.
- The data file should be stored on a password protected computer. Any back up data files should also be stored in a secure location.

DOCUMENTED PARENTAL PERMISSION

All minor participants in a research survey must have written parental/guardian permission before they can participate. The parent guardian must be able to review the survey, in its entirety, before permission may be granted. This needs to be done in a two-step process, wherein the parent /guardian reviews the survey and provides written permission before the student is given the survey to complete.

The following are several ways to obtain documented/ written parental permission prior to minor participant completing a survey on-line after recruiting participants in person.

- A traditional, hard copy of the parental permission/consent form may be sent to or brought to the parent who will review and possibly sign it, if giving permission for a minor child to participate. If the parent signs the form and returns it, the parent will be given a link for the minor participant to complete the on-line survey.
- Parental consent may be obtained using valid electronic signatures and emailed to the researcher, after which the researcher can email the link to the parent for the online survey.
- A copy of a signed permission document may be scanned and e-mailed back to the researcher, after which the researcher can email the link to the parent for the online survey.

If the recruiting of participants is going to be done online, it is recommended that an existing survey platform be utilized that can contact potential participants anonymously. It should have an informed consent embedded in the survey and that will restrict participants to those 18 years of age and older.

BEHAVIORAL & SOCIAL SCIENCES RESEARCH INVOLVING HUMAN PARTICIPANTS: GUIDANCE IN RISK ASSESSMENT & RISK REDUCTION

This guidance is written to assist student researchers, teachers/mentors and local School IRB's to assess and reduce risk as they design and review research projects so that the rights and welfare of human participants are protected.

A. Introduction to Risk Assessment and Reduction and the Role of the IRB

Risk Assessment involves the consideration of **physical** and **psychological** risks along with the **protection of privacy**. The student researcher, adult sponsor and qualified scientist must develop procedures that reduce and minimize any risks to human participants.

It is the responsibility of the members of the IRB to thoroughly review the Research Plan and collectively decide whether to approve the project, request revisions to the methodology/require more oversight (e.g., QS) to reduce risk to participants, or to determine that the project is not appropriate for student research. Members of the IRB will collaboratively make the following determinations which are documented on Human Participants Form 4:

- Whether the study contains no more than minimal risk or more than minimal risk (see definitions below) to potential participants. The IRB will consider characteristics (e.g., age, health status, vulnerability to coercion) of the study population, the specific risks (e.g., physical, psychological, social, privacy) associated with the research activity and local norms when making a risk level determination;
- Whether written documentation of informed consent can be waived (this is only allowable for minimum risk projects with adults over the age of 18.)
- Whether a qualified scientist is required
- Finally, whether the study is a) approved as it is written, b) must be revised or c) is not appropriate for a student research project (due to level of risk to the

student researcher and/or participants). The IRB will sign Form 4 only if the project is approved.

No more than minimal risk exists when the probability and magnitude of harm or discomfort anticipated in the research are not greater than those ordinarily encountered in daily life or during performance of routine physical or psychological examinations or tests. Research projects considered no more than minimal risk typically involve anonymous data collection (i.e., the data/responses cannot be linked to a particular person). In summary, physical, psychological or possibility of sharing a person's private information must be very small to be considered no more than minimal risk.

More than minimal risk exists when the possibility of physical or psychological harm or harm related to breach of confidentiality or invasion of privacy is greater than what is typically encountered in everyday life.

B. Types of Risk

1. Physical Risks:

- Exercise other than ordinarily encountered in daily life by that participant would be considered more than minimal risk. One must consider characteristics of potential research participants as well as the type of exercise involved in the study.

Examples:

- Walking the length of standard hallway
  a. For most healthy participants, this activity could be considered "minimal risk."
  b. For the elderly or someone recovering from knee surgery, this might be considered "more than minimal risk."
  c. Swimming 500 meters
  d. For the general population, this activity would be considered "more than minimal risk."
  e. For members of the varsity high school swim team, some IRBs may consider this activity to be "no more than minimal risk."
- Ingestion, tasting, smelling, application of a substance that pose any health risk are considered "more than minimal risk". Ingestion or tasting projects that involve commonly available food or drink will be evaluated by the IRB who will determine risk level based upon the nature of study and local norms around food typically encountered in the research setting.

Example:

- Some school IRBs may consider a tasting study minimal risk based on the fact that the food being studied is commonly available to all students in their school.
- Conversely, an IRB at another school may deem the same study more than minimal risk if the food being studied is not commonly available to students or they believe that parents in their community would want to provide parental permission before their minor child could participate in the study.

2. Psychological Risks

A research activity (e.g. survey, questionnaire, viewing of stimuli) or experimental condition that could potentially result in **emotional stress** would be considered **more than minimal risk**. For example, answering questions related to personal experiences such as sexual or physical abuse, experiences of trauma and/or psychological well-being (e.g. depression, anxiety, suicide) must be considered more than minimal risk and should have documented informed consent/minor assent/ parental permission (as applicable). **A licensed mental health professional must be on the IRB reviewing these types of projects.**

Additionally, research activities that involve exposing participants to stimuli or experimental conditions that could potentially result in emotional stress must also be considered more than minimal risk.

Examples include violent or distressing video images, distressing questions, materials or activities that could potentially result in feelings of depression, anxiety, or low self-esteem in participants.

Reducing Risk associated with Emotional Distress: Care must be taken to try to reduce potential emotional distress. For example, to reduce risk in a study involving a survey about depression and suicide, a mental health professional should be made available to talk with students while they are completing the survey.

3. Risks due to Invasion of Privacy & Breach of Confidentiality

The student researcher and the IRB must consider whether any activity could potentially result in negative consequences for the participant due to **invasion of privacy or breach of confidentiality**. For example, if the study involved collecting a student's GPA and the data were accidentally made available to unauthorized persons, the research participant could suffer embarrassment and feelings of distress related to the invasion of his privacy. Research projects that collect information of a personal nature (e.g., weight, private family information such as divorce, income, opinions about sensitive topics, sexual or gender, orientation, thoughts about suicide) put research participants at risk related to possible disclosure of personal information to others. Adults and student researchers must consider the ramifications of anyone (including the student researcher) becoming aware of a research participant's personal information. Breach of confidentiality can

be especially complicated and problematic when a student researcher is collecting data from his/her peers at school. Adults and student researchers need to anticipate the possibility of inadvertent breach of confidentiality in the context of collecting data from known peers.

Reducing Risk:

Risk level can be reduced by appropriately protecting confidentiality or collecting data that is anonymous and uses data collection procedures that make it impossible to link any identifying information with his/her responses or data.

a. **Anonymity** involves collecting research data in such a way that it is impossible to connect research data (e.g. responses, questionnaires) with the individual who provided the data. That is, personal identifiers (e.g. names, birthdates, student ID number, social security numbers) are not collected. **Whenever possible, student researchers should collect data anonymously.** While collecting data anonymously does reduce risk, not all anonymous studies are considered minimal risk.

   f. To collect data anonymously, student researchers must not require participants to give their name or any other identifiable information (birth date, email address, etc.)

   g. Adults and student researchers need to anticipate challenges to anonymous data collection. For example, if a student researcher collects data from known peers that includes both personal, sensitive information and demographic, personal information (e.g., sports they are involved in, favorite band), it is possible that the student researcher could inadvertently deduce who a given participant is based on the demographic data, even if names are not collected. It is recommended that a professional researcher with experience in the field research be consulted and named as a qualified scientist when data collection involves sensitive and personal topics.

   h. If documented informed consent, assent, and/or parental permission is/are required, the forms must always be kept in a secure location separate from the data.

      a. **Confidentiality** is necessary when personal identifiers such as name, birth date, telephone number, photograph, email address or mailing/street address are collected.

   i. Protecting confidentiality involves taking careful measures to ensure that the research data and/or responses are not disclosed to the public or unauthorized individuals with identifiable information.

   j. Confidentiality must also be considered when research activities involve collection of personal information (e.g. history of abuse, drug use, opinions, fingerprints, emotional functioning, grades) or health-related data (genetic material, blood, urine, tissue). The IRB reviewing a project involving sensitive mental or physical health issues, must consider the appropriateness of the study as a student research project with regards to the mental welfare of the human participants, especially if minors are involved.

   k. If the research involves data from the same participant on multiple occurrences, the data or survey would need to be labeled with an identifier to be linked with the data collected at a later date. In this case, confidentiality could be maintained by labeling the surveys or data with a participant number and keeping a list of names and participant numbers in a separate and secure (e.g., locked file cabinet, password protected computer) location. Once the second round of data is collected, the surveys/data may be matched using the participant number and any identifiers should be removed from the data/surveys. At this point, the list of names and participant numbers should be securely discarded (e.g., shred). If documented informed consent, assent, and/or parental permission is/are required, the forms must be kept in a secure location separate from the data.

Special Considerations:

THREATS TO ANONYMITY

- If the number of participants is relatively small and/or all participants are from an identifiable source (e.g., an English class, softball team), the anonymity of the data could be threatened. That is the student researcher or anyone with access to the data could potentially link the survey responses to an individual. In addition, presenting the results of the study (even in aggregate) could threaten the participants' privacy or result in negative consequences for the participants.
- If informed consent/assent/ parental permission forms (which include names) are collected and the sample is relatively small, it could be possible for the student researcher or an unauthorized person to link the survey responses with participants.

MAKING DATA ANONYMOUS

- Sometimes data may not be collected anonymously, but can be made anonymous after data collection. For example, if the student researcher uses interviews or observations to collect the data, the data would not be anonymous at the time of collection. However, if names are not collected or are removed from the data soon after collection, the data set would then be anonymous.

RISKS RELATED TO THREATS TO ANONYMITY

- Be sure to consider any ramifications of the student researcher being able to link responses with participants. Most importantly, would there be any negative consequences for the research participants if the student researcher could link responses with the participants. This is especially important when the research participants are peers to the researcher. When the participants are peers of the student researcher, the researcher/QS/IRB should give extra consideration to any potential risks related to the student researcher having knowledge of his/her peers' data (e.g., grades, body weight, etc.). To eliminate such risks, it may be prudent to have an adult collect the data and hand it over to the student research after identifiers are removed and it is anonymous.
- Be sure to consider the possibility of and ramifications of an unauthorized person (e.g., another student, parent, teacher, administrator) getting access to the data and being able to link responses to individual participants or groups of participants (e.g., softball team).
- Consider the nature of the study/data collected. Issues of anonymity and confidentiality are most salient for studies involving sensitive and personal information. Examples of data that should receive special consideration include grades, health/mental health information, experiences of child abuse, illegal behavior, socially unaccepted behavior, anything that could cause the participant embarrassment or legal or disciplinary negative consequences.

4. Risk Groups:

As noted above, the physical, psychological and other risks of participation in a study may depend on the specific sample of participants involved. The physical risk of an activity such as jumping rope will be much higher for elderly (or even middle-aged participant) than for a middle or high school participant. In contrast, the risks of a breach of confidentiality or anonymity would be greater for a group of high school students answering questions about alcohol use than for a group of older adults for whom it would be easier to collect the data in an anonymous fashion.

Some groups deserve special consideration. If the research study includes participants from any of the following groups described below, the student researcher and the IRB must consider whether the nature of the study requires consider special protections or accommodations for participants in these risk groups.

a. Any member of a group that is naturally at-risk (*e.g.*, pregnant women, mentally disabled persons, economically or educationally disadvantaged persons, individuals who suffer from a medical condition or disability such as cancer, asthma, diabetes, cardiac disorders, psychiatric disorders, learning disorders, etc.). The nature of the study is an important consideration when determining if special protections are required. For example, special protections would not typically be necessary to include pregnant women in a study involving performance on a cognitive test or completion of a simple survey.

b. Special vulnerable groups that are covered by federal regulations (*e.g.* children/minors, prisoners, pregnant women, students receiving services under the Individuals with Disabilities Education Act). Specifically, the IRB and the student researcher should consider whether potential study participants who are receiving services under the Individual Disabilities Education Act need special accommodations and/or are appropriate for inclusion in the study as research participants. Confidentiality must be maintained so as not to identify/isolate students.

5. Informed Consent

Informed consent refers to the process of ensuring that potential human participants understand that they may choose whether or not to participate in a study. Individuals should never be forced or coerced to participate in a research study. A teacher, school administrator or anyone requiring students to participate in a research study as a human participant would be considered a serious violation of informed consent principles. That is, the research participant must freely decide to participate and not feel coerced or forced into doing so.

To make an informed decision about whether an individual wants to participate, the human participants must be informed about what they will be asked to do and if there are any risks or benefits involved. For example, if the participant will be asked to complete an interview or a survey, the nature of the survey should be described (e.g., questions about emotional functioning, students' experiences around divorce, grades and SAT scores). The informed consent process should include a description of the purpose of the study. The IRB may require a QS to help develop appropriate informed consent procedures which respect the rights of human participants but do not threaten the validity of the study.

Participants 18 years and older must be provided with all the information mentioned above and give their Informed Consent before participating in a research study. If participants are under 18, a parent or legal guardian must be presented with all the information described above before giving Parental Permission for their minor child to

participate. **Minor Assent refers to procedures giving developmentally appropriate information to children and adolescents about the study and giving them a choice as to whether they will participate. High school students should be supplied with ALL the information mentioned above and give their written assent to participate.**

OBTAINING WRITTEN INFORMED CONSENT, PARENTAL PERMISSION OR MINOR ASSENT

An informed consent form is typically used to provide written information to the human participant or parent/guardian and to document written informed consent/parental permission/minor assent. This form typically includes the purpose of the study, what the participant will be asked to do, the nature of any surveys, questionnaires or interviews, any risks and any benefits to the participant. The form should also contain information that explains to the potential research participant or parent/guardian that participation in the study is voluntary and that the participant is free to stop participating at any time.

The Informed Consent Form in the International Rules provides an example of how this information can be presented.

If a study involves a survey or a questionnaire, the Informed Consent process must include attaching a copy of the survey or questionnaire to the form. This process allows the parent to review the material to which their child will be exposed and make an informed decision about whether they want their child to participate. If sharing the survey is a violation of a copyrighted test publisher's regulations or has other consequences that will invalidate the study, the IRB will need to determine if a description of the survey to the parents is enough or if this will not properly inform the parents and the study will need to be deemed inappropriate for student research.

WAIVER OF WRITTEN INFORMED CONSENT

Obtaining informed consent from an adult is always required. However, the IRB may waive the requirement for documentation of written informed consent for adults (all participants under the age of 18 MUST have written parental permission and minor assent) if the research involves **only minimal risk and anonymous data collection and if it is one of the following**:

a. Research involving normal educational practices

b. Research on individual or group behavior or characteristics of individuals where the researcher does not manipulate the participants' behavior and the study does not involve more than minimal risk.

c. Surveys and questionnaires that are determined by the IRB to involve perception, cognition, or game theory and do NOT involve gathering personal information, invasion of privacy or potential for emotional distress.

d. Studies involving physical activity where the IRB determines that no more than minimal risk exists and where the probability and magnitude of harm or discomfort anticipated in the research are not greater than those ordinarily encountered in DAILY LIFE or during performance of routine physical activities.

As explained above, informed consent is always required. It is merely the process of obtaining a signature to document informed consent for adults that can be waived in the circumstances mentioned above. **If there is any uncertainty regarding the appropriateness of waiving written informed consent, it is strongly recommended that documentation of written informed consent be obtained.**

HUMAN INTERACTION WITH STUDENT-DESIGNED APPS

Student designed inventions, prototypes or computer applications which are tested or used by human participants, other than the student researcher are considered human participant projects and must comply with all human participant rules including having an appropriate IRB.

Students are prohibited from providing advice, diagnostic or medical information to participants. Students are prohibited from publishing diagnostic apps on public websites or app stores without appropriate FDA approvals.

If a student designed invention, prototype or computer application is used on human participants, the results produced shall not be disclosed to the participants.

It is strongly advised that students not use AI as a chat bot or to provide unscripted responses to participants. Even with guardrails in place, the AI tool may provide harmful advice, diagnostic, or medical information to participants.

ANIMALS

This Guide is to assist in developing Science Fair Projects for the Regeneron International Science and Engineering Fair which use animals in their experimentation. Animal research requires additional ethical consideration to ensure the welfare and safety of the animal subjects and should be the researcher's highest priority. For this Guideline, animals encompass all those in the animal kingdom, but we will focus on vertebrates, cephalopods and invertebrates. Please also note that there are more detailed Rules and Guidelines in the Rulebook under Vertebrate Animal Rules. Please make yourself fluent with these rules.

The Society for Science strongly endorses the use of non-animal research methods and encourages students to use alternatives to animal research, which must be explored and discussed in the research plan. The foundational cornerstone of all animal research includes the 4R's:

Replace vertebrate animals with invertebrates, lower life forms, tissue/cell cultures and/or computer simulations where possible.

Reduce the number of animals without compromising statistical validity.

Refine the experimental protocol to minimize pain or distress to the animals.

Respect animals and their contribution to research.

Considerations for alternatives, including using lower phylogenetic models, fewer subject numbers, minimizing the impact of experimental protocols, and the sophistication of the experimental location should be reviewed. Consider any pain and distress that the animal may be subjected to. Justification must be provided, as well as a detailed description of the methods, including a timeline of procedures each animal will undertake.

VERTEBRATES:

Treat all animals as if they feel as you feel – both physically and emotionally. If you would not do it to yourself or someone you love, do not do it on an animal.

Prior SRC review and approval is required before a project can begin.

An animal's husbandry, specific procedures, and monitoring must be detailed in the research plan.

If experimentation is done in a Regulated Research Institution, then the experimentation must have written prior IACUC approval.

CEPHALOPODS:

As more is learned about these species we must adjust how we work with them. Cephalopods should be treated in accordance with the same rules and concerns as we require for vertebrates, including the 4R's. This includes prior SRC approval before experimentation. Their physical and emotional well-being must be considered.

As they have a short lifespan, their daily care is critical to a successful research project, as it is with all animals. Their basic husbandry needs must be considered and included in the research plan, including: size of tank, number of animals per tank (consider social needs vs overcrowding), food source for appropriate diet requirements, frequency of cleaning, etc.

For All Animal, especially Vertebrate and Cephalopod experiments:

Experiments that are prohibited include: induced toxicity, behavioral experiments using aversive stimuli, studies of pain, and predator/vertebrate prey experiments.

INVERTEBRATES:

It is important that we are stewards of the environment. When working with invertebrates, proceed with caution to make certain no chemicals or hazards are introduced that are harmful to the invertebrate subjects or other invertebrates that are in the surrounding area.

This is especially true of experimenting with or in proximity to pollinators. Pollinators play an outsized role in promoting a healthy environment and any potential experimentation that could damage the relationship among pollinators or their environment needs to be scrutinized and altered to minimize the risk.

There are a large number of insects that act as vectors for infectious diseases of varying severities for people, animals and crops. Whenever such an insect is being used, all necessary precautions, including appropriate BSL precautions must be followed.

Exempt: Studies for All Animals that are exempt from prior SRC review and approval:

Behavioral observations of animals are exempt from prior SRC review if ALL of the following apply:

- There is no interaction with the animals being observed,

- There is no manipulation of the animal's environment in any way, AND
- The study meets all federal and state agriculture, fish, game and wildlife laws and regulations.

Basic husbandry is defined as regular care of research animals. Husbandry tasks include but are not limited to: providing food and water, cleaning enclosures, health monitoring, maintenance of equipment and other daily care tasks. Husbandry does NOT include administering experimental procedures, performing invasive surgery or introducing new stimuli to the environment. Students are not allowed to practice Veterinary Medicine without a license.

POTENTIALLY HAZARDOUS BIOLOGICAL AGENTS

INDEX

Prohibited in a Home Environment
PHBA Risk Assessment, Risk Groups and Biosafety Lists
BSL-1 and BSL-2 Laboratory Self Checklists

When a student research project involves potentially hazardous biological agents (microorganisms including bacteria, viruses, viroids, rickettsia, fungi, parasites, rDNA, and tissues), it is the responsibility of the student and the adults involved in a research project to conduct and document a risk assessment to define the potential level of harm, injury or disease to plants, animals and humans that may occur when working with biological agents. The risk assessment determines a biosafety level which in turn determines if the project can proceed, and if so, under what laboratory facility conditions (with the correct equipment) and that all personnel are trained and appropriate supervision is planned.

PROJECTS PROHIBITED IN A HOME ENVIRONMENT

Students are prohibited from doing any culturing in a home environment. If a project involves microorganisms, rDNA or tissue that are not exempt from the PHBA rules, the project must not be conducted in a home environment. This includes an area in the home that has been set aside as a "laboratory" and/or if a parent is a Qualified Scientist.

PHBA RISK ASSESSMENT

Risk assessment defines the potential level of harm, injury or disease to plants, animals and humans that may occur when working with biological agents. The end result of a risk assessment is the assignment of a biosafety level which then determines the laboratory facilities, equipment, training, and supervision required.

Risk assessment involves:

1. Assignment of the biological agent to a risk group.
2. Studies involving a known microorganism must begin with an initial assignment of the microorganism to a biosafety level risk group based on information available through a literature search.
3. The study of unknown microorganisms and the use of fresh tissues relies on the expertise of the supervising adult(s).
4. Determination of the level of biological containment available to the student researcher to conduct the experimentation. (See "Levels of Biological Containment" for details.)
5. Assessment of the experience and expertise of the adult(s) supervising the student.
6. Assignment of a biosafety level for the study based on risk group of biological agent, level of biological containment available and the expertise of the Qualified Scientist or Direct Supervisor who will be supervising the project.
7. Documentation of review and approval of study prior to experimentation:
    a. If a study is conducted at a non-regulated site (e.g. school), the SRC reviews the Research Plan.
    b. If the study was conducted at a Regulated Research Institution, and was approved by the appropriate institutional board (e.g. IBC, IACUC), the SRC reviews the institutional forms provided.
    c. If a PHBA study was conducted at a Regulated Research Institution but the institution does not require review for this type of study, the SRC can review and indicate their approval via box 2B of Form 1B after confirming that the student received appropriate training and the project complies with the International Rules.

CLASSIFICATION OF BIOLOGICAL AGENTS RISK GROUPS

Biological agents are classified according to biosafety level risk groups. These classifications presume ordinary circumstances in the research laboratory, or growth of agents in small volumes for diagnostic and experimental purposes.

BSL-1 risk group contains biological agents that pose low risk to personnel and the environment. These agents are highly unlikely to cause disease in healthy laboratory workers, animals or plants. The agents require Biosafety Level 1 containment. Examples of BSL-1 organisms are: *Agrobacterium tumefaciens, Micrococcus leuteus, Neurospora crassa, Bacillus subtilis*.

BSL-2 risk group contains biological agents that pose moderate risk to personnel and the environment. If exposure occurs in a laboratory situation, the risk of spread is limited and it rarely would cause infection that would lead to serious disease. Effective treatment and preventive measures are available in the event that an infection

product as unfiltered room air enters the cabinet.

- In a **Class II** biosafety cabinet, intake air is drawn safely around the operator and flows under the worksurface (providing personnel protection) and HEPA filtered air flows downward onto the work surface (providing product protection). The exhaust air is HEPA filtered before it is either recirculated into the laboratory or released into the atmosphere through ductwork or a canopy connection (providing environmental protection).
- **Class III** biosafety cabinets are gas-tight enclosures, with both intake air and exhaust air passing through HEPA filtration. These cabinets also provide a physical barrier between the operator and the sample.

To learn more about each "class" of biosafety cabinets, https://www.labconco.com/articles/what-are-the-biosafety-cabinet-classes

Yale Environmental Health & Safety has a simple chart that helps provide the difference between biosafety cabinets vs. a chemical fume hood: https://ehs.yale.edu/sites/default/files/files/bsc-fume-hood.pdf

Fisher American also provides a chart and explanation, **Biosafety Cabinet vs. Fume Hood vs. Laminar Flow Hood – What's the Difference?**

For more in-depth information about biosafety and the standards set by the CDC regarding biosafety containment and risk assessment, please consult "***Biosafety in Microbiological and Biomedical Laboratories (BMBL)***" currently in its 6th edition. https://www.cdc.gov/labs/pdf/SF__19_308133-A_BMBL6_00-BOOK-WEB-final-3.pdf

Yale *Environmental Health & Safety*

Biosafety Cabinets VS Chemical Fume Hoods

There is often confusion about biological safety cabinets and chemical fume hoods, as both are often referred to simply as a "hood". The comparisons below are based on standard laboratory chemical fume hoods and the most common type of biosafety cabinet on campus, the class II type A2.

Feature	 Biosafety Cabinet	 Chemical Fume Hood
Personnel protection	✓	✓
Environmental (room) protection	✓	✓
Product protection	✓	✗
Used for handling biological materials	✓	✗
Used for handling hazardous chemicals or odorous compounds	✗	✓
Exhausts air outside the building	✗	✓
Recirculates air back into the room through HEPA filters	✓	✗
Requires users to have good work practices for maximum protection	✓	✓
Requires annual certification to ensure it is operating correctly	✓	✓

PRIONS AND PRION-LIKE PROTEINS

A point of emphasis and updated rules in the last several years are restrictions and prohibition around the use of prions and prion-like proteins.

Research involving prion proteins (PrP also denoted as PrPC and PrPSc) are strictly prohibited, as these prion proteins are known to cause neurodegenerative diseases if handled incorrectly. Research on diseases caused by prion proteins would include Creutzfeld-Jakob disease (CJD), Kuru, variably protease-sensitive prionopathy, sporadic fatal insomnia, bovine spongiform encephalopathy (BSE) or "mad cow", and chronic wasting disease (CWD).

Prion-Like Proteins

The prion-like proteins outlined in the rules as being prohibited are: amyloid-β (Aβ), tau, α-synuclein, transactive response DNA-binding protein of 43 kDa, amyloid fibrils, and Huntingtin protein. Aβ and tau are associated with Alzheimer's disease. α-synuclein is associated with Parkinson's disease. Transactive response DNA-binding protein of 43 kDa (TDP-43) is associated with amyotrophic lateral sclerosis (ALS). This includes laboratory reagents that mention "purified protein", "purified protein fragment", "peptide", "recombinant protein", etc.

Animal Models

There are several animal models available to study prion and prion-like protein diseases such as Alzheimer's and Parkinson's. Use of animal models is acceptable if the animal has been previously bred to display characteristics of the disease and has not been directly injected by the student with purified protein. Please refer to the International Rules in the Potentially Hazardous Biological Agents section.

Other Prion-Like Proteins

Other common prion-like proteins that have not been explicitly stated in the rules include: fused in sarcoma (FUS) which is associated with frontotemporal dementia and ALS, hnRNPA1, which is linked to ALS, and T cell intracellular antigen-1 (TIA-1) which is also linked to ALS. The proteins mitochondrial antiviral signaling (MAVS), Receptor-interacting proteins 1 and 3 (RIP1 and RIP3), are also prion-like and are seen in certain viral infections. As these have not been included in the rules, use of these proteins is not prohibited, but should still be examined for proper laboratory safety practices and should never be used in a home environment.

Type of Prion-Like Protein Work	Prohibition/Restrictions
Work with prion proteins (PrP); also cellular (PrPC) and misfolded scrapie (PrPSc)	Prohibited everywhere
Work with commercially available, purified prion-like proteins (amyloid-b (Ab), tau, a-synuclein, transactive response DNA-binding protein of 43 kDa, amyloid fibrils, and Huntingtin protein)	Prohibited everywhere
Work with animals or animal tissues that have been bred to express prion-like proteins (such as C. elegans and Drosophila):	Prohibited at home, permitted at any BSL-2 laboratory (including HS), permitted at BSL-1 laboratory at RRI
Work with cells or cell lines that will subsequently be lysed and prion-like proteins will be purified:	Permitted only at BSL-2 laboratories

TISSUES AND BODY FLUIDS

Students are permitted to conduct research that involves the use of human or animal cells, tissues, and cellular-/tissue-based products and such studies should follow the potentially hazardous biological agent rules. Examples of these products include, but are not limited to, human or animal cells, including established cell lines, blood and blood products, body fluids, bone, skin, unfixed tissues or organs, hematopoietic stem/progenitor cells derived from peripheral and cord blood, or other potentially infectious materials. These human or animal materials can contain bloodborne pathogens, which are pathogenic microorganisms present in blood and are capable of causing disease in humans, therefore added precaution is necessary when working with such materials.

Examples of activities related to the handling of any of the above materials that put a person "at risk" for exposure to bloodborne pathogens include:

- *In vitro* work with human cells
- Processing human blood or other bloodborne pathogen-risk body fluids
- Human cell/tissue/organ cultures with unknown bloodborne pathogen status
- Use of blood/organs/tissues from experimental animals infected with human bloodborne pathogens
- Handling untreated waste contaminated with human blood

SAFETY

Equipment that is designed to reduce the risk of bloodborne pathogen exposure is considered an engineering control and can include the following:

- Biological safety cabinets
- Sharps disposal containers
- Self-sheathing needles
- Eye wash stations that are readily available and functioning properly
- Disinfectants that are EPA-registered for the destruction of viruses
- Storage/transport and secondary containers that will effectively contain a spill

Personal Protective Equipment (PPE) is considered to be appropriate for protection against bloodborne pathogen exposure, only if it does not permit blood or other potentially infectious material to pass through or reach the researcher's clothing, skin, eyes, mouth, or mucous membranes for the duration of use.

Best practices to ensure your safety and the safety of those around you:

1. Wash hands with soap and water after removal of gloves and/or other personal protective equipment when work is complete and before leaving the laboratory
2. Contaminated needles and other sharps should not be bent, recapped, or removed, unless there is no demonstrable feasible alternative. In the event of no other alternative, needle removal should be accomplished using a mechanical device or a one-handed technique.
3. Immediately after use, contaminated reusable sharps should be placed in appropriate containers that are puncture resistant, labeled with the biohazard symbol, leak-proof, and designed in such a manner that does not require anyone to reach by hand into the container.
4. The use of glass should be minimized, as broken glass presents a puncture and abrasion hazard that can lead to a high-risk exposure scenario.
5. Eating, drinking, applying cosmetics or lip balm, handling contact lenses, and food or drink storage should be prohibited in all laboratories, but especially in those where tissues and body fluids are being used.
6. Splashing, spraying, or other actions that generate droplets of blood or other potentially infectious materials should be minimized during all procedures.

CELL CULTURES

Cell lines are cultures of human or animal cells that can be propagated repeatedly. They can be immortalized through transformation via spontaneous mutation or natural/laboratory infection with an immortalizing agent. Some vendors classify certain human or animal cell lines as appropriate to use at BSL-1, however, if unclassified, it is strongly recommended that experimentation be done in a BSL-2 laboratory, following BSL-2 procedures. Importantly, cell cultures containing a known (or suspected) etiologic agent or oncogenic virus are classified at the same biosafety level as that recommended for the agent, which may be higher than BSL-2, and are therefore prohibited in accordance with the International Rules.

TISSUES VS. VERTEBRATE OR HUMAN PARTICIPANT STUDIES

A project is considered a tissue study if the tissue obtained was obtained from an animal that was euthanized for a purpose other than the student's project. If the animal was euthanized solely for the student's project, the study also must be considered a vertebrate animal project and is subject to the vertebrate animal rules. Similarly, if a project involves human tissue or body fluids where the sample can be identified with a specific person, the study must have IRB review and approval, and informed consent.

DOCUMENTATION

Projects utilizing human/vertebrate animal established cell lines or tissue cultures must include documentation regarding the source of the cells/tissues, even if the project is exempt from IRB approval and even if the lab has been in possession of the cell line for many years.

a. If obtained from a commercially available collection (e.g., ATCC) the catalog number is required. If catalog number is unavailable, student can provide a receipt and/or letter from mentor regarding the origin of the items.

b. If obtained from a private/non-commercial source (public or private laboratory, museum, etc.), documentation from the supplier must be uploaded in the application, including IACUC approvals for the original study.

c. If obtained from mentor's study or another lab's study, upload original study's IACUC approval OR reference to the original study's publication.

Adapted from: Occupational Safety and Health Administration (OSHA)'s Bloodborne Pathogens (BBP) Standard; Food and Drug Administration (FDA)'s Regulatory Considerations for Human Cells, Tissues, and Cellular and Tissue Based Products: Minimal Manipulation and Homologous Use; Vanderbilt University Medical Center's Best Practices for Use of Human-Derived Materials & Bloodborne Pathogens in Basic Research Applications

HAZARDOUS CHEMICALS, ACTIVITIES and DEVICES

INDEX

Hazardous Chemicals
Hazardous Devices
DEA-Controlled Substances
Prescription Drugs
Alcohol & Tobacco
Firearms & Explosives
Regulated Drones
Radiation

The definition of hazardous is "dangerous and involving risk, particularly to one's health." Eye, ear, breathing, skin, and temperature protection should be considered when working with a hazardous chemical, activity, or device.

In the International Rules, areas that are considered hazardous include substances and devices that are regulated by local, state, country, or international law, most often with restrictions of their use by minors such as DEA- controlled substances, prescription drugs, alcohol, tobacco, firearms and explosives. Hazardous activities are those that involve a level of risk above and beyond that encountered in the student's everyday life.

The intent of deeming a chemical, device or activity as "hazardous" is to protect the student researcher by ensuring proper supervision and the consideration of all potential risks so that the appropriate safety precautions are taken.

As mentioned in the risk assessment section of the research planning process,

Hazards x Exposure = Risk

Limiting the quantity of the hazard and limiting the exposure to the hazard will reduce the risk. Careful consideration of materials to be used, in what quantity, at what dilution to achieve the goals of the project is one way to mitigate risk. Another is to have proper supervision or even adult assistance in managing the more hazardous activities of the project. And of course, proper safety precautions must include the appropriate laboratory environment (using appropriate safety equipment) and ensuring that students are wearing personal protective equipment. And as the project concludes, proper disposal of any hazardous materials must be considered.

CHEMICALS

All chemicals can be hazardous if not handled properly. A proper risk assessment of chemicals must include review of the following factors:

- **Toxicity** — the tendency of a chemical to be hazardous to human or environmental health.
  l. Human health toxicity includes acute and chronic hazards when inhaled, swallowed, injected or in contact with the skin.
  m. Environmental health includes aquatic toxicity (both acute and chronic), toxicity to mammals and birds, and impact on ecosystems.
- **Reactivity** — the tendency of a chemical to undergo chemical change, including instability and reactivity with other substances or conditions (i.e., reaction with water, air, temperature, pressure).
- **Flammability** — the tendency for a chemical substance to be ignited at ambient temperatures. Combustible substances can include:
  n. Chemical solvents that produce vapors which readily ignite when used under normal working conditions.
  o. Combustible solids (small particles, powders, or substances easily ignited by fire or an ignition source)
- **Corrosiveness** — the tendency of a chemical, upon physical contact, to harm or destroy living tissues or physical equipment.

When assessing risk, the type and amount of exposure to a chemical must be considered and as stated above, the least amount used at the lowest concentrations possible. For example, an individual's allergic and genetic disposition may have an influence on the overall effect of the chemical.

The student researcher must refer to Safety Data Sheets (SDS) provided by the vendor to ensure that proper safety precautions are taken. SDS sheets (e.g., Flinn, Sigma Aldrich, and Fisher Scientific) rank the degree of hazard associated with a chemical. This rating assists students and adult sponsors in determining risk associated with the use of a chemical.

TIPS FOR READING AN SDS

A Safety Data Sheet (SDS) can be pages long and daunting for students to read and understand. Reading the entire SDS is advised but there are some sections that are especially critical for students and teachers to read and understand when designing a research plan. This guide is to help you identify those critical sections.

First, there are a plethora of sources for SDS online. Three sources that are readily available in a Google search and easy to read are:

a. Fisher Scientific
b. Flinn Scientific
c. Sigma Aldrich

Let's start with chloroform as an example. You can simply google: SDS for chloroform and Fisher Scientific pops up.

CHLOROFORM SDS FROM FISHER SCIENTIFIC

https://www.fishersci.com/store/msds?partNumber=AC610281000&productDescription=CHLOROFORM+ANHYD&vendorId=VN00033901&countryCode=US&language=en

Section 2: Hazard(s) Identification (GHS ratings)/Hazard Statement

- This section is critical in determining chemical safety. What are the specific hazards? Where must the chemical work be conducted? Can it be done at school? Does it require a lab in an RRI? Can it be used at home for its intended use?

Section 4: First Aid Measures

- Discuss and make sure that the student knows where all safety equipment is located in the lab.

Section 5: Firefighting Precautions:

- This is where you may find the NFPA code. Alternatively it could be found in other sections.

Section 8: Exposure Controls and PPE

- This section is very specific to the type of PPE and engineering that needs to be in place to use this chemical. Is the right type of goggles available? Does the student have access to the correct thickness of gloves? Is a respirator required or a fume hood?

Section 10: Stability and Reactivity

- This section explains storage and work conditions to avoid.

Section 13: Disposal

- This section provides guidelines for disposal. If state and local regulations are referenced, you need to call your local landfill and find out what their rules are regarding the chemical. If EPA requirements are mentioned, make sure you read and understand those requirements.

Environmentally Responsible Chemistry

The mission of environmentally responsible (green) chemistry is to avoid the use or production of hazardous substances during chemical process. The principles of green chemistry are described on the EPA website in the Sources of Information section. Whenever possible the following principles should be incorporated into the research plan.

- Waste prevention
- Use of the safest possible chemicals and products
- Design of the least possible hazardous chemical syntheses
- Use of renewable materials
- Use of catalysts in order to minimize chemical usage
- Use of solvents and reaction conditions that are as safe as possible
- Maximization of energy efficiency
- Minimization of accident potential and avoiding the use of reactive substances

NEW IN 2027

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.

GHS CLASSIFICATIONS

The Global Harmonized System (GHS) classifies the variety of dangers that chemicals can have. The GHS is a framework that standardizes the classification and labeling of chemicals worldwide. Its goal is to establish criteria for the classification of health, physical and environmental hazards, and specify what information should be included on hazard labels as well as safety data sheets.

The following pictograms help identify the workplace hazards of chemicals and gases:



Explosive



Flammable



Corrosive



Toxic



Irritant



Oxidizing



Compressed Gas



Health Hazard



Environmentally Damaging

PROPER DISPOSAL

The proper disposal method must be a priority as you plan your project. All Safety Data Sheets have a disposal section and it is critical that this is reviewed and followed to ensure the safety of the researcher and the environment. Local, state and federal law may also apply and should be researched through contacting your local waste management or health department. Dependent on the research, student researchers should also consider any applicable EPA guidelines. Special consideration should also be taken to prevent environmental contamination, including water supply contamination via disposal down the drain.

It is strongly recommended that a student researcher include on Risk Assessment Form 3 as well as in the research plan the direct links to the SDS sheets related to materials used in their project.

HAZARDOUS DEVICES

When a student researcher works with potentially hazardous/dangerous equipment and/or other devices, in or outside a laboratory setting that requires a moderate to high level of expertise to ensure their safe usage, a risk assessment should be conducted to discuss and plan for appropriate safety precautions. Some commonly used devices (Bunsen burners, hot plates, saws, drills, etc.) may not require a documented risk assessment, assuming that the student researcher has experience working with the device. All students must consider risk as part of their research planning.

DEA-CONTROLLED SUBSTANCES

The U.S. Drug Enforcement Administration (DEA) regulates chemicals that can be diverted from their intended use to make illegal drugs. Other countries may have similar regulatory bodies; students outside of the U.S. must adhere to their own country's drug regulatory agency requirements in addition to U.S. DEA regulations. DEA-controlled substances and their schedule number are at the DEA website under Sources of Information. It is the responsibility of the student to consult this list if there is a possibility that substances used in experimentation could be regulated.

PRESCRIPTION DRUGS

In the United States, the Food and Drug Administration (FDA) tightly regulates the issuance of prescription drugs including non-controlled medications. State laws further regulate the use of prescription drugs, and it is unlawful for any person to knowingly or intentionally possess a non-controlled medication unless it was obtained directly from a valid prescription or order of a practitioner while acting in the course of their professional practice. It is also unlawful to use a prescription for persons or purposes outside of the original intent of the prescription or for the person it was originally prescribed for. All applicable federal, state, and country laws must be followed.

ALCOHOL AND TOBACCO

The U.S. Alcohol and Tobacco Tax and Trade Bureau (TTB) regulates the production of alcohol and distribution of alcohol and tobacco products. Many such products are restricted by age for purchase, possession and consumption.

See Alcohol and Tobacco Tax and Trade Bureau (TTB) website for details.

FIREARMS AND EXPLOSIVES

The U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), along with state agencies, regulates the purchase and use of firearms and explosives. A firearm is defined as a small arms weapon from which a projectile is fired by gunpowder. An explosive is any chemical compound, mixture or device, the primary purpose of which is to function by explosion.

Explosives include, but are not limited to, dynamite, black powder, pellet powder, detonators, and igniters.

The purchase of a firearm by a minor is generally unlawful. The use of a firearm, without proper state certification, is illegal. Students should check the training and certification requirements of individual states and countries.

REGULATED DRONES

Projects involving unmanned aircraft systems (UAS)/drones must follow all state, federal and country laws. See the Federal Aviation Administration (FAA) for more details (https://www.faa.gov/uas/).

RADIATION

Projects involving radionuclides (radioisotopes) and X-rays must involve a careful examination of the risks associated with the study and appropriate safety precautions must be taken. Depending upon the level of exposure, radiation released from these sources can be a health hazard.

Non-ionizing radiation includes the spectrum of ultraviolet (UV), visible light, infrared (IR), microwave (NW), radiofrequency (RF) and extremely low frequency (ELF).

Kvolts are energy units for x-ray machine. All studies using > 25 kvolts must be conducted at an institution with a Licensed Radiation Program and must be preapproved by the Institutions' Radiation Safety Officer or the Committee which oversees the use of ionizing radiation to ensure compliance with state and federal regulations

KeV (kilo electron volts) are units used to describe the energy associated with radioisotopes. For sealed radioactive sources it is advised that if an emitting gamma/high-energy beta or activity >1 μCi, that the Radiation Safety Committee provide pre-approval and that the project is supervised by a radiation-trained adult who can ensure the appropriate shielding and dosimetry is in place. Most likely such projects will be limited to an RRI setting.

Quad Chart/Visual Summary Instructions

A "quad chart" is a single page divided into four quadrants providing a high-level summary of the project. A quad chart is one form of a visual summary; you may choose to use an alternate visual summary that has a different organizational pattern than a quad chart if you prefer. A few examples are provided at the end of this document at **Appendix II**. It is intended to be bulleted information that can be reviewed quickly and is a public-facing document that balances summarizing the research while considering the protection of your intellectual property.

1. The page should be created so that **the entire page is visible at the same time.** The page should be created in Landscape mode.
2. The page will have to upload as an image to ProjectBoard.
3. The page background color should be a light color and text color predominantly dark to support readability.
4. The minimum allowable font size is 18 pt. and larger fonts are encouraged for readability. *Exception*: You may use a smaller font size, down to 12 pt., for figure captions or photo credits.
5. Text should be in list or bulleted form and as brief as possible. This 1-page document is intended to be a visual high-level summary that can be read at-a-glance.
6. All four quadrants of your Quad Chart should each be the same size with a single border line delimiting each. Alternate formats may be used but should have no more than 5 areas of content all clearly labeled. Example formats can be found in **Appendix II**.
7. The Title section should be only tall enough to include the required elements which are the same as the abstract header. The project title should be at the largest header size of the document for easy identification of the project. (See section on Quad Chart Title).
8. The Quad Chart/Visual Summary should include all appropriate photo credits, should not include a bibliography, references, or acknowledgments, may not use the term "abstract", and must adhere to all Display & Safety rules. Please refer to the D&S Graphic Credit Guidance for appropriate format.

Quad Chart Title:

- In the upper right-hand corner, list the Project ID.
- Line one is the title of your project.
- Line two is your name, school, city, state, country.

Quadrant 1: Research Question/Engineering Objectives

- Please state the research question or engineering problem being addressed.
- A leading core graphic or visual may be included if it aids understanding.

Quadrant 2: Methodology/Project Design

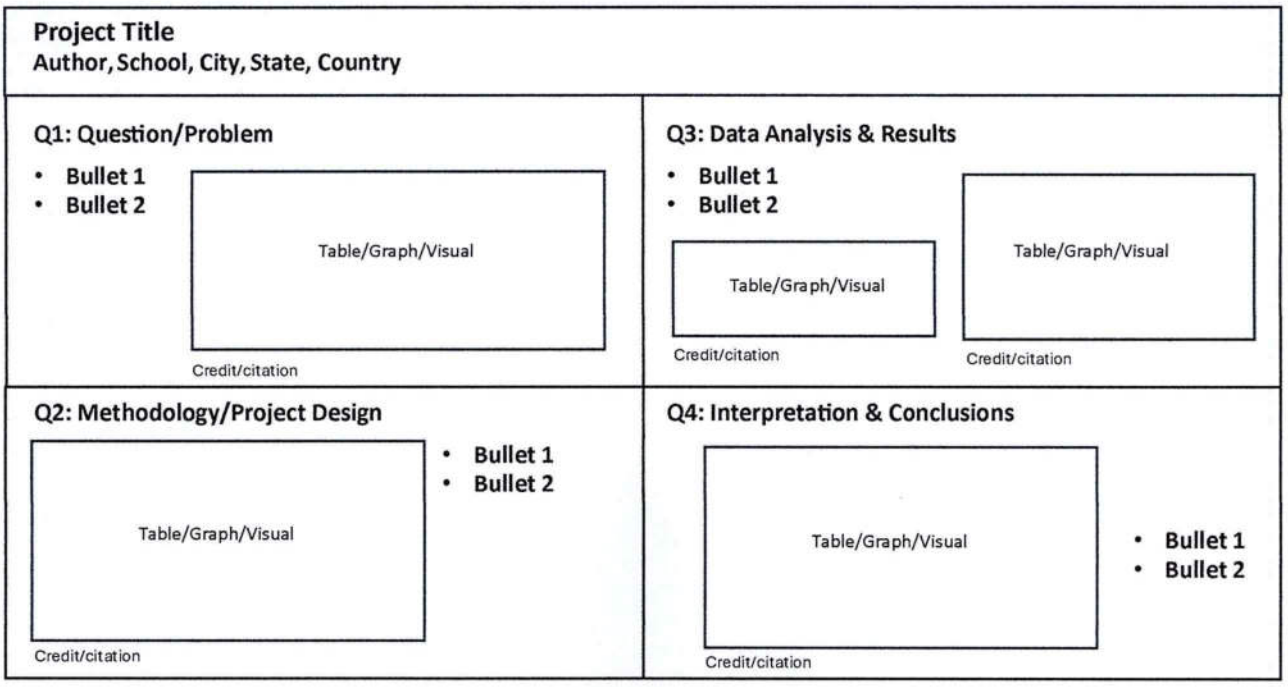
- Please provide a succinct, bulleted summary of the methodology/project design.
- A visual of the project set-up, prototype, testing apparatus, etc. is encouraged.

Quadrant 3: Data Analysis & Results

- This should be primarily a graphic of data and/or results, such as a diagram, chart or table. Text should be kept to a minimum.

Quadrant 4: Interpretation & Conclusions

- This should be a succinct, bulleted summary of conclusions.
- A visual from the project may be included if it aids understanding..



Additional Resources

TABLE 1. ACRONYMS COMMONLY USED IN SCIENCE RESEARCH COMPETITION

Acronym	Meaning
AIC	Adult in Charge (part of the Official Party at ISEF)
ATCC	American Type Culture Collection (cells that can be purchased)
BSL-1	Bio Safety Level 1
BSL-2	Bio Safety Level 2 (there is also 3 &4)
COI	Conflict of Interest
D&S	Display and Safety Committee
FTQ	Failure to Qualify
GHS	Globally Harmonized System (chemical classification system)
HUB	Not an acronym. Central hub at Regeneron ISEF
IAUCC	Institutional Animal Use and Care Committee
IBC	Institutional Biosafety Committee
IRB	Institutional Review Board
Regeneron ISEF	Regeneron International Science and Engineering Fair
JAC	Judging Advisory Committee (ISEF)
NAS	National Academy of Sciences
NFPA	National Fire Protection Association (chemical classification system)
NRC	Nuclear Regulatory Commission
NSTA	National Science Teachers Association
OFP	Official Party (affiliated fair delegation at Regeneron ISEF)
PHBA	Potentially Hazardous Biological Agents
RAO	Regional Award Organizations (at Regeneron ISEF Affiliated Fairs)
SAO	Special Award Organizations (at Regeneron ISEF)
SRC	Scientific Review Committee
Regeneron STS	Regeneron Science Talent Search

Glossary of Terms

Project addendum: A summary of any steps or procedures that are different than what was written on the original research plan. It can be appended to the original research plan.

Abstract: 250 word, one-page document that summarizes the current year's work. It is a discussion of the work completed by the researcher, not the mentor.

Animal care: A description of the housing, food/water provided, cleaning schedule, weighing details.

Artificial intelligence (AI): Can be used in projects when it is well-documented by all students and adults involved in the project. See the Use of Generative AI Table in the Educator Guide for guidance on the appropriate use and documentation of AI.

ATF: Alcohol, tobacco, firearms, and explosives is a federal agency that controls the purchase and use of these items. Permitting from this agency is required for some projects.

Biosafety cabinet: An enclosed, ventilated, HEPA-filtered lab workspace. It filters inflow and exhaust air and is used with biohazardous or infectious organisms.

BSL: Biosafety level determines the handling and working conditions for biohazardous/infectious organisms. Students can work with BSL1 and BSL2 organisms under appropriate working conditions.

Continuation project: It is based on the student's prior research but must show a significant change from prior work.

Culture: Growing a microorganism on or in a nutrient media.

DEA-controlled substances: Drugs and chemicals that are regulated based on safety, medical use, and potential for abuse. There are five schedules, I-V.

Embryonic human stem cells: These are pluripotent cells from a 3-5 day old embryo.

Established cell lines: Cells that originated from primary tissues and can be sub cultured indefinitely (immortalized).

FAA: Federal Aviation Administration, a branch of the government that manages and regulates all issues related to our air space.

FDA: Federal Drug Administration, a branch of the government charged with the safety and effectiveness of drugs, vaccines, medical devices, cosmetics, and food.

Forensic projects: Projects that have a purpose that could involve elements involved in solving a crime. An example would be the decomposition of vertebrate tissue.

Fume hood (chemical fume hood, hood): fume hood will protect researchers from inhaling harmful chemicals, vapors, or dust when used correctly.

Human participant: This is a living individual that the experimenter obtains data or samples through intervention or interaction or obtains identifiable private information.

Informed consent: The voluntary participation in research after all benefits and risks have been explained to the potential participant. This is often in the form of a formal written document.

Institutional Animal Use and Care Committee (IACUC): The committee is federally mandated. It is responsible for approving vertebrate research projects. They are then responsible for ensuring that welfare regulations are being followed and investigating any concerns that arise.

Institutional Review Board (IRB): A federally mandated committee that evaluates the physical and mental safety of humans participating in a proposed research project. This includes surveys and questionnaires, use of devices, and behavioral studies.

Institutional Biosafety Committee (IBC): The IBC reviews and approves research protocols, safety, and risk mitigation prior to the start of a study. Approval is required for high-risk biological research such as rDNA or work with infectious agents.

Microbial fuel cells (MFC): Fuel cell system that is typically catalyzed by bacteria. Soil and composted materials are commonly used in a MFC.

Multi drug resistant organisms (MDRO): This is a super bug that has developed resistance to antibiotic and/or antifungal treatments. *MRSA* and *Candida auris* are two examples that exhibit longer hospital stays and higher mortality.

Non-controlled medication: These are drugs with a low risk of abuse or addiction. Most over the counter medications fall into this category. Some prescription medications also fall into this category, such as statins, blood pressure medication, and antibiotics.

Nuclear Regulatory Commission: The government agency in charge of regulating nuclear energy technology and radioactive materials used in medicine and research.
PHBA: Potentially Hazardous Biological Agents are microorganisms which may cause infection, inflammation, toxic reaction, or other types of hazards to human health.
Prion-like proteins: These proteins are similar to prions in their ability to misfold and aggregate. They can play a role in diseases like Parkinson's as well as in cell signaling.
Prions: A misfolded protein that causes transmissible diseases that are fatal. The exposure can occur through eating contaminated meat, medical procedures, genetics, and contaminated surfaces. There is also the possibility of transmission through donated blood and organs.
Prior approval: In certain areas of research approval must be granted by the appropriate review body (such as SRC, IRB, IACUC, IBC, etc.) before experimentation or data collection can be started.
Protected group: Groups granted extra protection in human studies by Federal Regulations. These include women, fetuses, prisoners and children.
Qualified Scientist: Person with an advanced degree in the area of the student's research or extensive experience. (See Roles and Responsibilities)
Research plan: A plan written prior to experimentation to detail the rationale, research question, methodology and risk assessment of the project.
Risk assessment: A process whereby the student researcher and adults involved identify potential hazards and consequences.
Scheduled Substances (DEA 1, 2, 3, 4, 5): All use of DEA controlled substances must be supervised by a QS at an RRI. If a Schedule 1 substance is to be used, then the research protocol must be approved by the DEA before research begins.
Scientific Review Committee: Scientific Review Committee: A group of qualified individuals responsible for evaluation of student research. (See Roles and Responsibilities)
Tissue study: Studies involving fresh/frozen tissue, blood or body fluids obtained from humans and/or vertebrates.

TTB: Alcohol Tobacco Tax and Trade Bureau: Federal Bureau that regulates alcohol and tobacco products. (Acronyms)
Vertebrate animal: Animals with backbones which have special protections to ensure no more than momentary or slight pain or distress is experienced.

Sources of Information

Link	Name	Description/ Notes
FOR ALL PROJECTS		
Patents		
https://www.uspto.gov/patents	United States Patent and Trademark Office (USPTO)	Homepage for patent basics, information about applying for a patent, application assistance, maintaining patents, resources, and independent inventor resources. Customer Service: 1-800-786-9199 (toll-free); 571-272-1000 (local); 571-272-9950 (TTY)
https://www.uspto.gov/learning-resources	USPTO Resources	Information on finding a patent office near you, videos, data and statistics, kid pages and activities, inspiring intellectual property, and programs and awards
https://www.uspto.gov/learning-and-resources/access-our-free-services	USPTO Free Services	Access to USPTO free services including application assistance, education and training, or help appealing/ fixing an issue
https://www.uspto.gov/video/cbt/prelim-patent-search/index.html	USPTO Search Strategy Video	Video guidance on how to conduct a preliminary US patent search
https://www.uspto.gov/learning-and-resources/ip-policy/public-information-about-practitioners/law-school-clinic-1	USPTO Law School Clinic Certification Program	Information from the USPTO on the Law School Clinic Certification Program which includes over 60 participating law school clinics that provide legal services pro bono to the public, including inventors, entrepreneurs, and small businesses
https://www.uspto.gov/patents/basics/using-legal-services/pro-se-assistance-program	USPTO Pro Se Assistance Program	The Pro Se Assistance Program provides outreach and education to applicants who file patent applications without the assistance of a registered patent attorney or agent
https://www.epo.org/en	European Patent Office	Homepage for the European Patent Office including information on how to search for patents, applying for a patent, law and practice, and the boards of appeal
Plagiarism and Ethics		
https://resourcecenter.cis.ieee.org/	Institute for Electrical and Electronics Engineers (IEEE) Resource Center	Access to the IEEE Computational Intelligence Society webinars, conference presentations, workshops
https://www.scribbr.com/plagiarism-checker/	Scribbr Plagiarism Checker	Free plagiarism checker
Invasive Species		
https://www.fws.gov/program/aquatic-nuisance-species-task-force	Aquatic Nuisance Species (ANS) Task Force	Information about the ANS Task force their work to protect the waters of the United States from

		the threat of aquatic nuisance species
https://www.aphis.usda.gov/plant-pests-diseases	USDA APHIS Plant Pests and Diseases	Information about plant pests, plant diseases, and services and activities related to this
https://www.invasivespeciesinfo.gov/	USDA National Invasive Species Information Center (NISIC)	Links to information about invasive species
https://www.iucngisd.org/gisd/	Global invasive species database	Information on invasive species from the Invasive Species Specialist Group (ISSG)
Environmental Research		
https://response.epa.gov/_healthsafetymanual/forms/Health%20and%20Safety%20Plans/HASP%20Template.docx_	US Environmental Protection Agency (EPA) Health and Safety Plan Template	Template document from the US EPA for a health and safety plan
https://www.epa.gov/clp/clp-information-field-samplers	US EPA Contract Laboratory Program (CLP) Information for Field Samplers	Link to document that includes general information about environmental sample collection, sampling documentation and tools, as well as CLP recommended sample containers, collection, and shipping information.
Harmful Algal Blooms		
https://hab.whoi.edu/impacts/impacts-human-health/	US National Office for Harmful Algal Blooms	Information on harmful algal blooms, including species, maps, and resources
https://www.cdc.gov/ohhabs/about/index.html	Centers for Disease Control (CDC) One Health Harmful Algal Bloom System (OHHABS)	OHHABS is a reporting system that gathers information to better understand harmful algal blooms and prevent associated illnesses
https://oceanservice.noaa.gov/hazards/hab/#regional	National Oceanic and Atmospheric Administration (NOAA) Harmful Algal Blooms	Information and resources from NOAA on harmful algal blooms including monitoring systems, forecasts, and research
https://www.orsanco.org/wp-content/uploads/2021/02/FINAL-2021-HAB-Monitoring-and-Response-Plan.pdf_	Ohio River Valley Water Sanitation Commission (ORSANCO) Harmful Algae Bloom Monitoring, Response and Communication Plan	2021 response and communication plan
https://www.dshs.texas.gov/sites/default/files/tscc/docs/HAB%20Guidance%20Texas_Final_20220310.pdf_	Texas Department of State Health Services Guide for Public Health Response to Cyanobacterial Harmful Algae in Recreational Freshwater in Texas	Guide for response to harmful algal blooms in Texas
Surface Water Sampling		

https://www.epa.gov/sites/default/files/2017-07/documents/surface_water_sampling201_af.r4.pdf	EPA Surface Water Sampling	Document describing the general and specific procedures, methods, and considerations to be used and observed when collecting surface water samples for field screening or laboratory analysis
Human Participants		
https://www.hhs.gov/ohrp/regulations-and-policy/regulations/45-cfr-46/index.html	Code of Federal Regulation (CFR), Title 45 (Public Welfare), Part 46-Protection of Human Subjects (45CFR46)	The HHS regulations for the protection of human subjects in research (45 CFR 46)
https://grants.nih.gov/policy-and-compliance/policy-topics/human-subjects/training-and-resources#training	National Institutes of Health (NIH) Training and Resources for Human Subjects	Training and communication materials such as web-based tutorials, presentations, and other resources to assist in determining if your research involves human subjects
https://grants.nih.gov/sites/default/files/PHRP_Archived_Course_Materials_English.pdf	NIH Protecting Human Research Participants	Course to prepare researchers involved in the design and/or conduct of research involving human subjects to understand their obligations to protect the rights and welfare of subjects in research
https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/read-the-belmont-report/index.html	The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research	Guidance around human participant research
https://www.apa.org/	American Psychological Association (APA)	Contact Info: (202) 336-5500; 800-374-2721
https://www.apa.org/about/students	APA Information for Students	Resources for student research
https://www.apa.org/pubs/index	APA Information Regarding Publications	
https://www.apa.org/science/programs/testing/standards	APA Standards for Educational and Psychological Testing (1999)	The testing standards are a product of the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME) and represent the gold standard in guidance on testing in the United States and in many other countries
https://www.apa.org/science/programs/testing/	Testing Office for the APA Science Directorate	Contact Info: (202) 336-6000; testing@apa.org

https://www.ftc.gov/legal-library/browse/rules/childrens-online-privacy-protection-rule-coppa	The Children's Online Privacy Protection Act of 1998 (COPPA)	COPPA imposes certain requirements on operators of websites or online services directed to children under 13 years of age, and on operators of other websites or online services that have actual knowledge that they are collecting personal information online from a child under 13 years of age
https://www.hhs.gov/ohrp/about-ohrp/index.html	US Department of Health and Human Services (HHS) Office for Human Research Protections (OHRP)	OHRP provides leadership in the protection of the rights, welfare, and wellbeing of subjects involved in research by providing clarification and guidance, developing educational programs and materials, maintaining regulatory oversight, and providing advice on ethical and regulatory issues in biomedical and social-behavioral research
https://www.hhs.gov/ohrp/register-irbs-and-obtain-fwas/index.html	HHS OHRP IRB Information	Instructions for registering institutional review boards (IRB) and obtaining Federal wide Assurances (FWA)
https://www.fda.gov/regulatory-information/search-fda-guidance-documents/informed-consent	US Food and Drug Administration Guidance Document on Informed Consent	Guidance intended to assist institutional review boards (IRBs), clinical investigators, and sponsors in complying with FDA's informed consent regulations
Vertebrate Animals		
Animal Care and Use		
https://grants.nih.gov/grants/olaw/guide-for-the-care-and-use-of-laboratory-animals.pdf	NIH Guide for the Care and Use of Laboratory Animals, 8th Edition (2011)	Guidance to assist institutions in caring for and using animals scientifically, technically, and humanely
https://nap.nationalacademies.org/catalog/10732/guidelines-for-the-care-and-use-of-mammals-in-neuroscience-and-behavioral-research	Guidelines for the Care and Use of Mammals in Neuroscience and Behavioral Research (2003)	Provides information on best use practices for all mammalian species in neuroscience research
https://www.nal.usda.gov/animal-health-and-welfare/animal-welfare-act	USDA National Agricultural Library Animal Welfare Act	Information on the animal welfare act including the current law and regulations
https://www.nal.usda.gov/programs/awic	USDA National Agricultural Library Animal Welfare Information Center (AWIC)	AWIC provides information, products and services related to the improved care and use of animals in research, testing, and teaching as described in the Animal Welfare Act

https://www.aaalac.org/pub/?id=E900BDB6-CCCF-AB13-89B6-DA98A4B52218	Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC International) Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching 4th Edition (2020)	This Ag guide comprises subject-oriented chapters covering subjects that pertain to all agricultural animal species
https://fisheries.org/policy-media/science-guidelines/guidelines-for-the-use-of-fishes-in-research/	American Fisheries Society Guidelines for the Use of Fishes in Research	These guidelines address both field and laboratory research with fishes
https://www.avma.org/resources-tools/avma-policies/avma-guidelines-euthanasia-animals	American Veterinary Medical Association Guidelines on Euthanasia (2020)	Provide veterinarians guidance in relieving pain and suffering of animals that are to be euthanized
Alternative Research and Animal Welfare		
https://www.nal.usda.gov/animal-health-and-welfare/animal-use-alternatives	USDA National Agricultural Library Animal Use Alternatives (3Rs)	Literature and resources around the 4Rs of animal research (replacement, reduction, and refinement)
https://www.nlm.nih.gov/	**Specialized Information Services NLM/NIH**	Quarterly bibliographies of Alternatives to the Use of Live Vertebrates in Biomedical Research and Testing may be obtained from:
https://caat.publichealth.jhu.edu/	Johns Hopkins Center for Alternatives to Animal Testing	At CAAT, our work focuses on developing cutting-edge biotechnologies, educational initiatives, and multi-stakeholder events that drive the shift away from animal models in toxicology.
Quality Assurance Manuals (for appropriate species), such as:		
https://www.poultryimprovement.org/documents/BestManagementPracticesHatcheries.pdf	USDA Best Management Practices Handbook: A Guide to the Mitigation of Salmonella Contamination at Poultry Hatcheries	Handbook to assist hatchery operators in mitigating *Salmonella* contamination of birds
https://www.bqa.org/Media/BQA/Docs/nationalmanual.pdf	Beef Quality Assurance National Manual	The BQA program is a cooperative effort between beef producers, veterinarians, nutritionists, extension staff, and other professionals from veterinary medical associations and allied industries that is designed to help identify and manage areas in beef production operations where defects in quality can occur

https://porkcheckoff.org/certification-tools/producer-tools/safe-pig-care/	Pork Checkoff Swine Care Handbook	Guide to swine care that reflects the latest research about animal husbandry, and it represents a commitment to continuous improvement in animal ethics
Potentially Hazardous Biological Agents		
https://absa.org/	American Biological Safety Association (ABSA)	Resources and information about biosafety and biosecurity
https://my.absa.org/Riskgroups	ABSA Risk Group Database	Database of risk data associated with bacteria, viruses, fungi, and parasite
https://www.atcc.org/	American Type Culture Collection	Supplier of cell lines and microbes
https://www.bergeys.org/	Bergey's Manual	Links to Bergey's Manual Trust Publications including Bergey's Manual of Systematic Bacteriology
https://www.cdc.gov/labs/bmbl/index.html	CDC-NIH Biosafety in Microbiological and Biomedical Laboratories (BMBL) 6th Edition	An advisory document recommending best practices for the safe conduct of work in biomedical and clinical laboratories from a biosafety perspective
https://www.who.int/publications	World Health Organization (WHO) Publications	Publications from the WHO on various health topics
https://www.who.int/publications/i/item/9789240011311	WHO Laboratory Biosafety Manual, 4th Edition	The WHO Laboratory Biosafety Manual (LBM) serves as a de facto global standard that presents best practices and sets trends in biosafety
https://www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/pathogen-safety-data-sheets-risk-assessment.html	Public Health Agency of Canada Pathogen Safety Data Sheets	Technical documents that describe the hazardous properties of a human pathogen and provide recommendations for work involving these agents in a laboratory setting
https://asm.org/	American Society for Microbiology (ASM)	Resources from ASM including resources for educators teaching microbial sciences to a K-12 and undergraduate audience
https://microbiologysociety.org/	Microbiology Society	Resources for educators teaching microbiology
https://osp.od.nih.gov/wp-content/uploads/NIH_Guidelines.pdf	NIH Guidelines for Research Involving Recombinant DNA Molecules	Guidelines on the biosafety practices and containment principles for constructing and handling: (i) recombinant nucleic acid molecules, (ii) synthetic nucleic acid molecules, including those that are chemically or otherwise modified but can base pair with naturally occurring nucleic acid molecules, and (iii) cells, organisms, and viruses containing such molecules

https://www.osha.gov/	Occupational Safety and Health Administration	
General Lab/Chemical Safety		
https://www.acs.org/content/dam/pldp/center/lab-safety/publications/safety-in-academic-chemistry-laboratories-students.pdf	American Chemical Society (ACS) Safety in Academic Chemistry Laboratories 8th Edition	An overview of the key issues related to the safe use of chemicals in the first two years of an undergraduate program in chemistry
https://www.acs.org/content/dam/acsorg/about/governance/committees/chemicalsafety/publications/acs-secondary-safety-guidelines.pdf	ACS Guidelines for Chemical Laboratory Safety in Secondary Schools	Guidelines to help high school teachers in all science subjects to progressively increase their understanding of best practices to ensure the safety of their students and themselves in the scientific learning experience
https://www.epa.gov/greenchemistry	EPA Green Chemistry	Information on green chemistry and the process that reduce or eliminate the generation of hazardous substances
https://www.flinnsci.com/sds/	Flinn Scientific Safety Data Sheets (SDS)	Resource to look up safety data sheets from Flinn Scientific; however, SDS for the exact supplier and chemical used should be applied
https://pubchem.ncbi.nlm.nih.gov/ghs/	National Center for Biotechnology Information (NCBI) National Library of Medicine Globally Harmonized System (GHS) Classification (Rev. 11, 2025)	Listing of the current GHS of Classification and Labeling of Chemicals
https://webapps.ilo.org/static/english/protection/safework/ghs/ghsfinal/ghsc05.pdf	GHS Summary on Acute Toxicity	GHS Chapter 5 on Acute Toxicity
https://www.osha.gov/chemical-reactivity	OSHA Chemical Reactivity Hazards	Chemical reactivity standards, hazard recognition and evaluation, and laboratory safeguards
https://www.nfpa.org/news-blogs-and-articles/blogs/2021/11/05/hazardous-materials-identification	National Fire Protection Association (NFPA) Hazardous Materials Identification	Information from the NFPA on hazardous materials
Pesticides		
https://npic.orst.edu/ingred/ptype/natbio.html	National Pesticide Information Center	Information on natural and biological pesticides
https://ordspub.epa.gov/ords/pesticides/f?p=PPLS%3A1%20	EPA Pesticide Product and Label System	A collection of pesticide product labels that have been accepted by the EPA

U.S. Drug Enforcement Administration: https://www.dea.gov/	US Drug Enforcement Administration (DEA)	Resources from the DEA
Controlled Substances		
https://www.deadiversion.usdoj.gov/schedules/schedules.html	US Department of Justice, DEA, Diversion Control Division	Controlled Substance Schedules
https://www.ttb.gov/	US Alcohol and Tobacco Tax and Trade Bureau	Resources including information for students regarding science fair projects
https://www.atf.gov/	US Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF)	Information including regulations regarding firearms, explosives, arson, and alcohol and tobacco
Radiation		
https://www.cdc.gov/radiation-health/safety/index.html	CDC Radiation Safety	Information and preventative measures for radiation safety
https://www.nrc.gov/reading-rm/doc-collections/cfr/part020/part020-appc	Code of Federal Regulations	Standards for protection against radiation
https://www.osha.gov/laser-hazards	OSHA Laser Hazards	Laser hazards, construction, and solutions for laser hazards

ENCLOSURE 9: TIMELINE OF ACTIVITIES AND REQUIREMENTS

DATE	ACTIVITIES	PERSONS INVOLVED
Whole month of August 2026	Conduct of SSTF	School SRC/BOJ Researchers/Research Advisers
September 2 – 15, 2026	Conduct of DSTF	Division Science and Mathematics Supervisors Research Advisers Researchers Division BOJ/SRC
October 16, 2026	Deadline of **online** submission of: - Division Report on Conduct of DSTF - List of Participants for RSTF - Entries for SRC	Division Science and Mathematics Supervisors Research Advisers Researchers
October 22-24, 2026	**In-House Scientific Review Committee Meeting** **SRCs shall meet the research advisers online on the 24th to explain the revisions needed*	Regional SRC Regional Science and Math Supervisors Select NCRRAA Officers
October 25 – November 26, 2026	Refinement of Projects based on SRC Comments	Division Science and Math Supervisors/ Coordinator Officers of the Regional Research Advisers Association Concerned Research Advisers
November 27, 2026	Deadline of **Online** Submission of • Final Papers for Judging • Quad-chart • 2 - minute video of the project	Researchers and Research Advisers Division Science and Mathematics Supervisors/Coordinators
November 28 - December 10, 2026	Asynchronous Paper/Video Judging of the BOJ	Regional SRC Regional Science and Mathematics Supervisors
December 2, 2026	Ocular Visit and Final Coordination Meeting for RSTF 2026	Division Science and Mathematics Supervisors Regional Science and Mathematics Supervisors Officers of NCRRAA

December 11, 2026 **Day 0**	Getting Ready Setting Up for the Fair • *Submission of **Three Hard Copies** incorporating the revisions from the SRC* • *Quality assurance of projects* • *Submission of division shout out video* • *Submission of Project Slide Decks (in PPT format only)* • *Making science fair poster* • *Setting-up and Quality Assurance of the Project Display Board* Note: Submission is **from 8:00 Am to 12:00 PM ONLY** **1PM Briefing for all participants**	Division Science and Mathematics Supervisors Officers of the Regional Research Advisers Research Advisers and Researchers Host Division
December 12, 2026	*Opening of the RSTF 2026* *Judging of Projects* • ***On-site interview in the Morning with Open House*** • ***Oral defense in the Afternoon until 5:00 PM only.*** • *Audience during the presentation is allowed but with rules to be followed and maximum number of audience will be determined* • *There should be a documenter, time keeper, emcee and crowd controller in each defense area* • *All documents must be submitted to the secretariat* • ***Research Advisers Academy for Research***	Science and Mathematics Supervisors Officers of the Regional Research Advisers Research Advisers Host Division

	Advisers while the Oral Defense is ongoing **Evening –** Student Mixer (for students)	
December 13, 2026	*Deliberation Day of SRC/BOJ*	Regional cience and Mathematics Supervisors SRC/BOJ
December 14, 2026	***AM*** *Brainiac Quiz Bowl* *PM* *Closing Program and Awarding*	Science and Mathematics Supervisors Officers of the Regional Research Advisers Research Advisers Contestants in Quiz Bowl HOST DIVISION
December 18 - 19, 2026	Regional Cliniquing and Mentoring of the Regional Winners **Venue TBA**	Science and Math Supervisors of the NSTF qualifiers Research Advisers and Researchers Selected Judges
December 2026	Submission of Final research output to DepEd CO	Science and Math Supervisors Research Advisers Science Supervisors

ENCLOSURE 10: WORKING COMMITTEES

Executive Committee

Jocelyn DR Andaya
Regional Director, NCR
Concurrent Officer-in-Charge, Office of the
Assistant Secretary for Operations

Rita E. Riddle
Chief Education Supervisor, ESSD
Concurrent Officer-in-Charge, Office of the
Assistant Regional Director

Micah G. Pacheco
Chief
Curriculum Learning Management Division

CLMD Focal Persons
Don King O. Evangelista, OIC – EPS Science
Lambert G. Quesada, OIC – EPS Mathematics

CLMD Supervisors
Marita D. Aquino, EPS MAPEH
Maricar A. Bangit, EPS Kinder
Arnold C. Gatus, EPS English
Sherwin C. Mamaril, EPS Filipino
Dennis M. Mendoza, EPS LR
Roland D. Montes, EPS Values Education
Andrew E. Tan, EPS Araling Panlipunan/EPP-TLE-TVL
Charito Villanueva, EPS ALS

RO Technical Working Group
Mark Dave de Castro, ADAS
Jessica Villanueva, TAIII, CLMD
Justine Bugayong, COS, ALS
Jose Resfel Palaganas, COS, ALS
Jonathan Buquia, COS, ALS
Jason Astudillo, COS, ALS
Nancy Mabunga, Librarian II, LR
Fidel Gonzales, Teaching Aid Specialist, LR

Division Education Program Supervisors in-Charge

	Science	Mathematics
Caloocan City	Emiterio Macarubbo	Jennifer Mondoy
Las Pinas City	Genovie G. Tagum	Gina L. Aguitez
Makati City	Hernan Apurada	Michael Lee
Malabon City	Manolo C. Davantes, Jr.	Evelyn C. Callada

Mandaluyong City	Roxane Villanueva	Ruth Dela Cruz
Manila City	Arlen Gatpo (OIC)	Remylinda Soriano
Marikina City	Jessica S. Mateo	Dominador J. Villafria
Muntinlupa City	Armida Oblinada	Emalyn Ballonado (OIC)
Navotas City	Jocelyn Agulto	Alberto Tiangco
Paranaque City	Corazon Javier	Zenaida Regodon
Pasay City	Sara Jane delos Santos (OIC)	Mateo Obias
Pasig City	Liza Alvarez	Candelaria Balmeo
Quezon City	Maria Pilar Capalongan	Joel Feliciano
San Juan City	Bradley Goldie Loo	Helen S. Acedo
Taguig City and Pateros	Marivic Almo	Mirasol Rongavilla
Valenzuela City	Maria Lea Prondo	Marilyn Soriano

NCR Research Advisers Association

Caloocan City	Diana Lou Sipalay
Las Pinas City	Ruth Bonagua
Makati City	Wilmar Mamongay
Malabon City	Mylene Aguinaldo
Mandaluyong City	John Francis Cultura
Manila City	Diana Grace Aniban
Marikina City	Guiller Belen
Muntinlupa City	Princess La Rosa
Navotas City	Karl Erniell Arambulo
Paranaque City	Mark John Nalaunan
Pasay City	Edzel Hernandez
Pasig City	John Paul Aparato
Quezon City	Genevieve Vasquez
San Juan City	Ruel Liwanag
Taguig City and Pateros	Janeth Mamansag
Valenzuela City	Dioscorro II Lumogdang

ENCLOSURE 11: Awards and Recognition

The following are the awards to be given/awarded for RSTF 2026.

A. Special Awards	Descriptions
• Best Shout Out	Best shout out should portray creativity, clarity of the hash tags or message, coherency of the music or lyrics to the message or actions and organization as shown from the submitted **60-second** video and actual presentation.
• Best Poster	Poster will be evaluated based on the content (identity of the division through culture, practices or landmark), creativity, design presentation, originality and relevance to the theme. See enclosure for the rubric.
• Best Presenter	Best presenter should have a clear audible speaking voice, research focus, has an in depth understanding of the research topic and high scientific reasoning and stage presence
• Best Display Board	Best display boards will be evaluated based on the design, layout, dimension and content as set in the standard for the display board, organization and clarity. See enclosure for the rubric.
• Bida Lourdes Special Award	This award will be chosen by Lourdes hospital based on their criteria in relation to health science.
B. Best Projects	
• Top 5 Best Projects for each category will be awarded	The five best projects: First (Gold), Second (Silver), Third (Bronze), Fourth and Fifth (Certificate) for each category
• The First-Place winner/s will represent the region in the NSTF in each category if approved by the National SRC	• Life Science (IND) • Life Science (TEAM) • Physical Science (IND) • Physical Science (TEAM) • Robotics (IND) • Robotics (Team) • Mathematics and Computational Science (Individual and Team) • STEM Innovation Expo (Individual and Team)

Other special awards may be awarded depending on the partners.

Furthermore, the results of the deliberation of the Regional SRCs and the Regional Board of Judges will be **final and irrevocable**.