Intel International Science and Engineering Fair Forms

The Colorado Science and Engineering Fair is affiliated with the Intel International Science and Engineering Fair and with that affiliation comes the requirement that we have our students follow the Intel ISEF Rules and Guidelines for Pre-College Research. Also, new this year, CSEF has created a middle school version of these forms and rules. The form numbers are the same and they contain the same information as the Intel ISEF forms, but the layout of the forms are different. It is not the job of the Grand Award Judges to review these forms for compliance, as we have a Scientific Review Committee that does that *and ALL projects that are set-up to display during judging on Thursday of the CSEF are cleared to compete.*

However, there are a few forms that judges might be interested in reviewing during the judging process:

1. **Research Plan Attachment** – most of this information will be on the display board, but possibly not all of it if a student was working in one of the three sensitive areas of research: human subjects, vertebrate animals or potentially hazardous biological agents (which includes tissue work).

2. **Regulated Research Institutional/Industrial Setting Form (1C)** – this is the form that is used to divulge what work the student actually did if they worked at a research institution (like a university) or an industrial setting (like a dentist's office). To determine whether or not this form is required, check the Adult Sponsor Checklist Form (1) #5.

3. **Qualified Scientist Form (2)** – many times when a student is working in one of the three sensitive research areas listed above, it is REQUIRED that they consult a qualified scientist about their project before starting experimentation. This doesn't always mean the student worked in their lab, but that they looked over the experimental procedures and worked with the student to make sure they were following all of the rules. And even if it isn't required, students are encouraged to consult with experts in their field of study.

4. **Risk Assessment Form (3)** – when a student is working with hazardous chemicals or devices or doing hazardous activities as part of the project, they are REQUIRED to have a designated supervisor who is on hand to assist the student as needed to keep him/her safe during work on their project. This could be the same as the qualified scientist, but it has to be the person who is DIRECTLY supervising the student during the work.

5. **Continuation Form (7)** – if a student does a multiyear project, they are required to disclose what is different from previous years' work and **they MUST ONLY be judged on THIS YEAR'S project,** but they may have information (not on the display board) at their project related to previous work.

The follow forms are samples of the above Intel ISEF forms and CSEF Middle School forms mentioned above to give you an idea of what to look for and where to read the pertinent information about the projects you will be judging. It is important to note that the students are not required to have **every** form.

Research Plan Instructions – Middle School

A typed, detailed research plan is required for ALL projects and MUST accompany the Student Researcher Checklist Form (1A) and Risk Assessment Form (3) and be completed PRIOR to experimentation.

The Research Plan is a brief, but detailed explanation of the rationale behind the project idea, the research question(s), the procedures/methodology, the risk assessment and background exploration. This MUST be completed PRIOR to experimentation in order to be approved by the Adult Sponsor and the SRC/IRB (if required). Any changes to this plan MUST be documented (make an amendment to the original document) and approved by the Adult Sponsor and the SRC/IRB (if required) before work can continue on the project.

The research plan for ALL projects should include the following parts:

1. What is the **rationale/reason** for doing this project? Include a brief summary of the background research you did in relation to your project and explain why this research is important scientifically and, if applicable, any impacts to society in general your research has.
2. State your **hypothesis(es)**, **research question(s)**, **engineering goal(s)**, and/or **expected outcomes** (predictions) for your project. Be sure it ties into your rationale/reason.
3. Detail ALL **procedures** and **experimental design** processes that you are going to follow. Be sure to include exactly how data is going to be collected.
4. Identify ANY and ALL **potential risks** and safety precautions you need to be aware of in completing your project. This should include the building of any apparatus needed to collect data for your project. Include this information on the Risk Assessment Form 3.
5. Describe the procedures you will use to analyze the data/results to answer your research question(s) or hypothesis(es).
6. List at least **five (5) major references** (i.e. science journal articles, books, internet sites, etc.) that you read in your background exploration in the proper works cited format. If you plan on using vertebrate animals in your project, one of these MUST be an animal care reference. *Please note that Wikipedia should NOT be one of the five references – it can be included only if you have more than five.*

If your project includes Human Subjects, Vertebrate Animals and/or Potentially Hazardous Biological Agents (microorganisms, rDNA, tissue), then your research plan MUST also include the following:

1. **Human Subjects** (prior IRB approval and Form 4 are required; Informed Consent and Form 2 may be required)
   a. Describe in general the type of people who will participate in your study (age range, gender, racial/ethnic composition, etc.).
   b. How will you recruit your participants? How will they be invited to participate?
   c. What exactly will the participants be asked to do? Include any surveys, questionnaire or test questions that you plan on using. How often and for how long will each participant be asked to commit to?
   d. What are the potential risks or discomforts *(remember to think about emotional as well as physical*) to the participants? How will you minimize those risks?
   e. What are the potential benefits to the individual participants as well as to society in general?
   f. Will you be collecting any identifiable information (i.e. name, age, grade, phone numbers, birth dates, emails, etc.)? Is this a confidential or anonymous study?
   Confidential studies may collect identifiable information, but must be kept separate from the data being analyzed using a number key that only the researcher and adult sponsor has access to.
   Anonymous studies don't collect any identifiable information along with the study so that not even the researcher or adult sponsor knows who gave what answers.
   g. How will you 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? This can be done via an Informed Consent Form or on the survey directly if informed consent is not required by the IRB.

2. **Vertebrate Animals** (prior SRC approval and Form 5A or 5B are required; Form 2 may be required)
   a. Briefly discuss potential ALTERNATIVES to vertebrate animal use in your project and a detailed justification for using vertebrate animals.
   b. All procedures must be DETAILED and include methods used to minimize potential discomfort, distress, pain and injury to the animals during experimentation. If chemicals or drugs are used, concentrations and dosages MUST be exact.
   c. What is the species, strain, sex, age, etc. of the animals being used? How many animals will you be using in the study and why is that number appropriate? What is the source of the animals?
   d. Where will the animals be housed (cage/housing size, bedding, etc.)? What will be included in the daily care of the animals (food, water, exercise, etc.)?
   e. What will happen to the animals at the end of the study?

3. **Potentially Hazardous Biological Agents** (prior SRC approval and Form 6A are required; Form 6B and Form 2 may be required)
   a. What biological agent (microorganism, rDNA, tissue, cell line, etc.) are your using and where did it come from?
   b. What Biosafety Level did you determine your project involved and why?
   c. How are you going to keep yourself and others in the lab safe while you are working with the biological agents?
   d. How and where are you going to dispose of the biological agents once your project is complete?

Research Plan/Project Summary Instructions

A complete Research Plan/Project Summary is required for ALL projects and must accompany Student Checklist (1A).

1. All projects must have a Research Plan/Project Summary written prior to experimentation following the instructions below to detail the rationale, research question(s), methodology, and risk assessment of the proposed research.
   a. If changes are made during the research, 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.
   b. If no changes are made from the original research plan, no project summary is required.

2. 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.

3. 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:
      - **Procedures:** Detail all procedures and experimental design including methods for data collection. 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.
   d. **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? 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 termination 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:
   • Describe Risk Assessment process, supervision, safety precautions and methods of disposal.

Research Institution/Industrial Setting Form (1C) – Middle School

This form is only required for those projects conducted at a work site that is not a school, home or field and MUST be completed AFTER experimentation.

This form is to be completed by the supervising adult who is affiliated with the regulated research institution or industrial setting and who has first-hand knowledge of the student's work done there. <u>The Student Researcher(s) should NOT complete any part of this form!</u>

1. Student's Name(s):_____
2. Project Title:_____

_____

3. I or my proxy (grad student, postdoc, employee, etc.) _____ ***did*** / _____ ***did not*** mentor or provide substantial guidance to the Student Researcher(s).
   If no, describe your and/or your institution's role with the Student Researcher(s) and the project (i.e. supervised use of equipment on site without on-going mentorship) and sign below.

   If yes, complete questions 4 – 7 and sign below.
4. The Student Researcher(s)' research project _____ ***is*** / _____ ***is not*** a subset of my ongoing research or work. Use questions 5, 6 & 7 to detail how the student's project was similar and/or difference from ongoing research or work at your site.
5. Describe the independence and creativity with which the student(s):
   a. developed the expected outcomes or engineering goals for the research project.

   b. designed the methodology for his/her research project.

   c. analyzed and interpreted the data.

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

7. The student(s) _____ ***did*** / _____ ***did not*** work on the project as a part of a research group.
   If the student(s) did work as part of a group, how many individuals were in the group and who were they (high school students, graduate students, faculty, professional researchers, etc.).

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 acknowledge that the student will be presenting this work publicly in competition and I have communicated with the Student Researcher regarding any requirements for my review and/or restrictions of what is publicized.

Supervising Adult's Printed Name	Supervising Adult's Signature	Date of Signature (mm/dd/yy)
Institution		Title
Email		Phone Number

Regulated Research Institutional/Industrial Setting Form (1C)

This form must be completed AFTER experimentation by the adult supervising the student research conducted in a regulated research institution, industrial setting or any work site other than home, school or field.

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 remain on the form as it is required to be displayed at student's project booth.)

The student(s) conducted research at my work site:

1. Did you or your proxy (e.g. graduate student, postdoc, employee) mentor or provide substantial guidance to the student researcher? ☐ Yes ☐ No
   a. If no, describe your and/or your institution's role with the student researcher and his/her project (e.g. supervised use of equipment on site without ongoing mentorship and sign below.

   b. If yes, complete questions 2 –5.
2. Is the student's research project a subset of your ongoing research or work? ☐ Yes ☐ No
   Use questions 3, 4 and 5 to detail how the student's project was similar and/or different from ongoing research or work at your site.
3. Describe the independence and creativity with which the student:
   a. developed the hypotheses or engineering goals for her/her research project

   b. designed the methodology for his/her research project

   c. analyzed and interpreted data
4. Detail the student's role in conducting the research (e.g. data collection, specific procedures performed). Differentiate what the student observed and what the student actually did.
5. Did the student(s) work on the project as part of a group? ☐ Yes ☐ No
   If yes, how many individuals were in the group and who were they (e.g. high school students, graduate students, faculty, professional researchers)?

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 acknowledge that the student will be presenting this work publicly in competition and I have communicated with the student research regarding any requirements for my review and/or restrictions of what is publicized.

Supervising Adult's Printed Name _____ Signature _____ Title _____

Institution _____ Date Signed (must be after experimentation) _____

Address _____ Email/Phone _____

Adult Sponsor Checklist Form (1) – Middle School

This form is required for ALL projects and MUST be completed PRIOR to experimentation.

This form is to be completed by the Adult Sponsor in collaboration with the Student Researcher(s).

1. Student's Name(s): _____

2. Project Title: _____

_____

3. Adult Sponsor, please certify that you have reviewed the following (forms listed in b - e are REQUIRED for all projects) with the Student Researcher(s) and agree with them by initialing each line.

_____a. I have reviewed the Rules & Guidelines for Middle School Science Research that apply to this project.

_____b. I have reviewed the completed Student Researcher Checklist Form (1A).

_____c. I have read and reviewed the proposed Research Plan and have determined it is appropriate.

_____d. I have reviewed the completed Approval Form (1B).

_____e. I have reviewed the completed Risk Assessment Form (3) and approve of the chosen Designated Supervisor.

4. The Student Researcher(s) _____ ***will /*** _____ ***will not*** employ the expertise of a qualified Scientist/Mentor. If yes, a Qualified Scientist/Mentor Form 2 is required. Please note, that the SRC or IRB may require a student to work with a Qualified Scientist.

5. The Student Researcher(s) _____ ***will /*** _____ ***will not*** work on the project at a Regulated Research Institution (i.e. university or college) or an Industrial Setting (i.e. hospital, water treatment plant, private lab, etc.). If yes, a Research Institution/Industrial Setting Form 1C will be required AFTER the project is completed.

6. This project _____ ***is /*** _____ ***is not*** a continuation/progression from a previous year. If yes, a Continuation Form 7 is required along with all previous years' abstracts and research plans.

7. This project _____ ***does /*** _____ ***does not*** involve one or more of the following, requiring PRIOR approval by an SRC and/or an IRB. *Please check all that apply:*

☐ **Human Subjects** – Projects involving human subjects require PRIOR approval by an IRB and the following:
- Human Participants Form (4) **AND POSSIBLY**
- Unsigned Sample of Informed Consent Form (if required by the IRB) **AND POSSIBLY**
- Qualified Scientist/Mentor Form 2 (if required by the IRB)

☐ **Vertebrate Animals** – Projects involving vertebrate animals require the following:
- Vertebrate Animal Form 5A – if project is conducted at school, home or in a field setting; PRIOR school/local SRC approval is required in this case **OR**
- Vertebrate Animal Form 5B – if project is conducted at a Regulated Research Institution; PRIOR Institutional Animal Care and Use Committee (IACUC) approval is required in this case **AND POSSIBLY**
- Qualified Scientist/Mentor Form 2 (if required by the SRC)

☐ **Potentially Hazardous Biological Agents** – Projects involving microorganisms (known and unknown), rDNA and human or animal tissue require PRIOR approval by either the school/local SRC or university regulatory board and the following:
- Potentially Hazardous Biological Agents Risk Assessment Form 6A **AND POSSIBLY**
- Human and Vertebrate Animal Tissue Form 6B (to be completed along with Form 6A when a project involves fresh or frozen tissue, primary cell cultures, blood, blood products and bodily fluids) **AND POSSIBLY**
- Qualified Scientist/Mentor Form 2 (if required by the SRC)

Adult Sponsor's Printed Name	Adult Sponsor's Signature	Date of Review (mm/dd/yy) (MUST be PRIOR to experimentation)
Phone Number	Email	

Checklist for Adult Sponsor (1)

This completed form is required for ALL projects.

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 Intel ISEF Rules and Guidelines.
2. ☐ I have reviewed the student's completed Student Checklist (1A) and Research Plan/Project Summary.
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)
   - ☐ Student Checklist (1A)
   - ☐ Research Plan/Project Summary
   - ☐ Approval Form (1B)
     - ☐ Regulated Research Institutional/Industrial Setting Form (1C) (when applicable; after completed experiment)
     - ☐ Continuation/Research Progression Form (7) (when applicable)

6. **Additional forms required if the project includes the use of one or more of the following** (check all that apply):
   - ☐ **Humans** (Requires prior approval by an Institutional Review Board (IRB); see full text of the rules.)
   - ☐ **Testing student designed invention/prototype**
     - ☐ 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 (2) (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 (2) (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 Institutional Biosafety Committee (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 (2) (when applicable)
   - ☐ **Hazardous Chemicals, Activities and Devices** (No SRC prior approval required, see full text of the rules.)
     - ☐ Risk Assessment Form (3)
     - ☐ Qualified Scientist Form (2) (required for projects involving DEA-controlled substances or when applicable)

Note: 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, for projects using color change coliform water test kits, microbial fuel cells, and for projects involving decomposing vertebrate organisms.

Adult Sponsor's Printed Name	Signature	Date of Review
Phone	Email	

Qualified Scientist/Mentor Form (2) – Middle School

This form MAY BE required for projects involving human subjects, vertebrate animals and/or potentially biological agents and MUST be completed PRIOR to experimentation.

This form is to be completed by the Qualified Scientist or Mentor who is advising and/or supervising the Student Researcher(s) on the project and has expertise in the area of research. <u>The Student Researcher(s) should NOT complete any part of this form!</u>

1. Student's Name(s):_____

2. Project Title:_____

_____

3. Scientist/Mentor's Name:_____

4. Degree(s)/Certification(s):_____ Field(s) of Study:_____

5. My ***experience/training*** as it relates to the Student Researcher(s)' project includes:

6. Institution:_____ Position:_____

7. Email:_____ Phone Number:_____

8. I _____ ***have /*** _____ ***have not*** reviewed the Rules and Guidelines for Middle School Science Research relevant to the student's project.

9. The following will be used as part of this research project (check ALL that apply)

☐ Human Subjects
☐ Vertebrate Animals
☐ Microorganisms
☐ DEA-controlled Substances
☐ Tissues (including blood and blood products)
☐ rDNA

☐ None of the Above

10. This research _____ ***is /*** _____ ***is not*** a subset of a larger study.

11. I _____ ***will /*** _____ ***will not*** directly supervise the Student Researcher(s) during experimentation.

a. If not, who will DIRECTLY supervise the Student Researcher(s)?_____
b. The ***experience/training*** of the Designated Supervisor as it relates to the project includes:

Qualified Scientist/Mentor	
I certify that I have reviewed and approved the Research Plan PRIOR to the start of experimentation. I will ensure that the Student Researcher(s) and/or Designated Supervisor(s) are trained in the necessary procedures related to the project. I will provide advice and supervision during the research. I have a working knowledge of the techniques to be used by the Student Researcher(s) as outlined in the Research Plan. I understand that a Designated Supervisor is required when I am not available to directly supervise the Student Researcher(s).	
_____ Scientist/Mentor's Printed Name	
_____ Scientist/Mentor's Signature	_____ Date of Approval

Designated Supervisor	
To be used only when the Qualified Scientist/Mentor is unavailable to directly supervise the student(s). I certify that I have reviewed the Research Plan and have been trained in the techniques to be used by the Student Researcher(s) and I will provide DIRECT supervision during experimentation.	
_____ Designated Supervisor's Printed Name	
_____ Designated Supervisor's Signature	_____ Date of Approval
_____ Email	

Qualified Scientist Form (2)

May be required for research involving human participants, vertebrate animals, potentially hazardous biological agents, and DEA-controlled substances. Must be completed and signed before the start of student 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:

_____ _____

Address: Email/Phone:

1) Have you reviewed the Intel ISEF rules relevant to this project? ☐ Yes ☐ No

2. Will any of the following be used?
   a. Human participants ☐ Yes ☐ No
   b. Vertebrate animals ☐ Yes ☐ No
   c. Potentially hazardous biological agents (microorganisms, rDNA and tissues, including blood and blood products) ☐ Yes ☐ No
   d. DEA-controlled substances ☐ Yes ☐ No

3. Was this study a sub-set of a larger study? ☐ Yes ☐ No

4. Will you directly supervise the student? ☐ Yes ☐ No
   a. If no, who will directly supervise and serve as the Designated Supervisor? _____
   b. Experience/Training of the Designated Supervisor:

To be completed by the Qualified Scientist:

I certify that I have reviewed and approved the Research Plan/Project Summary prior to the start of the experimentation. If the student or Designated 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 Summary. I understand that a Designated Supervisor is required when the student is not conducting experimentation under my direct supervision.

_____

Qualified Scientist's Printed Name

_____ _____

Signature Date of Approval

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

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

_____

Designated Supervisor's Printed Name

_____ _____

Signature Date of Approval

_____ _____

Phone Email

Risk Assessment Form (3) – Middle School

This form is required for ALL projects and MUST be completed PRIOR to experimentation.

This form is to be completed by the Student Researcher(s) in collaboration with the Adult Sponsor, Designated Supervisor and/or Qualified Scientist/Mentor. All questions MUST be answered and additional pages may be attached.

1. Student's Name(s):_____
2. Project Title:_____

_____

3. List **ALL** chemicals (household AND laboratory), dangerous activities, hazardous devices and/or exempt microorganisms that are to be involved in this project.

4. Identify the risks involved in using **ALL** items listed in question #3. (What is the worst that could happen if something went wrong when working on your project?)

5. Describe the safety precautions you are going to take in order to minimize/reduce the risks identified in question #4. (How are you going to keep yourself and others around you safe while you are working on your project?)

6. Describe the disposal procedures you will use (when applicable) for items listed in question #3. (How are you going to SAFELY dispose of any hazardous items used in the project?)

7. List the source(s) of your safety information (in works cited format). Material Safety Data Sheets MUST be referenced when using chemicals (household AND laboratory.), but not attached.

Designated Supervisor:

I agree with the risk assessment and safety precautions described above. I certify that I have thoroughly reviewed the Research Plan and will provide **DIRECT supervision** of the Student Researcher(s) during experimentation.

Supervising Adult's Printed Name	Supervising Adult's Signature	Date of Review (mm/dd/yy) (MUST be PRIOR to experimentation)

Position & Institution	Email

Experience/Training as it relates to the project:

_____

_____

Risk Assessment Form (3)

Required for projects using hazardous chemicals, activities or devices and microorganisms which are exempt from pre-approval. Must be completed before experimentation.

Student's Name(s) _____

Title of Project _____

_____

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

1. List all hazardous chemicals, activities, or devices that will be used; identify microorganisms exempt from pre-approval (see Potentially Hazardous Biological Agent rules).

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

3. Describe the safety precautions and procedures that will be used to reduce the risks.

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

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

To be completed and signed by the Designated 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 Summary and will provide direct supervision.

_____ _____ _____

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

_____ _____

Position & Institution | Phone or email contact information

_____

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

Continuation/Progression of Projects Form (7) – Middle School

This form is required for ALL projects that are a continuation/progression in the same field of study as a previous project done by the Student Research(s) and MUST be completed AFTER experimentation.

This form is to be completed by the Student Researcher(s) and accompanied by previous years' abstract(s) and Research Plan(s). List all components of the current project that make it new and different from previous research. ALL questions MUST be answered and be on this form. Use additional Form 7's for years before 2014/2015.

Student's Name(s):_____

	Current Research Project	Previous Research Projects
1. Title		2015/2016:
		2014/2015:
2. Change in Goal/Purpose/Objective		2015/2016:
		2014/2015:
3. Changes in Methodology		2015/2016:
		2014/2015:
4. Variables Studied		2015/2016:
		2014/2015:
5. Additional Changes		2015/2016:
		2014/2015:

Student Researcher or Team Leader:

☐ I have attached the relevant previous year(s)' abstracts and Research Plans to this form.

AND

☐ I hereby certify that the above information is correct and that the current year's abstract and project display board properly reflect work done ONLY in this current year (2016/2017).

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

Continuation/Research Progression Projects Form (7)

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 Summary.

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 information must be on the form; use an additional form for 2013–2014 and earlier projects.

Components	Current Research Project	Previous Research Project
1. Title		2015–2016 2014–2015
2. Change in goal/purpose/ objective		2015–2016 2014–2015
3. Changes in methodology		2015–2016 2014–2015
4. Variables studied		2015–2016 2014–2015
5. Additional changes		2015–2016 2014–2015

Attached are:

☐ 2015–2016 Abstract and Research Plan/Project Summary ☐ 2014–2015 Abstract

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