Student Checklist (1A)

This form is required for ALL projects.

1) a. Student/Team Leader: _____ Grade: _____
Email: _____ Phone: _____

Demographic Information (optional): ☐ White (non-Hispanic) ☐ Hispanic Latino ☐ Asian ☐ Black/African American ☐ Hawaiian/Pacific Islander ☐ Native American/Alaska Native

b. Team Member # 2 _____ Grade: _____
Email: _____ Phone: _____
Demographic Information (optional): ☐ White (non-Hispanic) ☐ Hispanic Latino ☐ Asian ☐ Black/African American ☐ Hawaiian/Pacific Islander ☐ Native American/Alaska Native

c. Team Member # 3 _____ Grade: _____
Email: _____ Phone: _____
Demographic Information (optional): ☐ White (non-Hispanic) ☐ Hispanic Latino ☐ Asian ☐ Black/African American ☐ Hawaiian/Pacific Islander ☐ Native American/Alaska Native

2) Title of Project:

3) School: _____ School Phone: _____ Address: _____

_____

4) Adult Sponsor/Teacher: _____ Phone/E-mail: _____

5) Is this a continuation from a previous year? ☐ Yes ☐ No
If Yes:
a) Attach the previous year's ☐ Abstract and ☐ Research Plan
b) Explain how this project is new and different from previous years on ☐ Continuation Form (7)

6) This year's laboratory experiment/data/data collection will begin: _____ (must be stated (mm/dd/yy))
Actual Start Date: _____ (mm/dd/yy) Actual End Date: _____ (mm/dd/yy) OR ☐ upon SRC preapproval date.

7) Where will you conduct your experimentation? (check all that apply)
☐ Research Institution ☐ School ☐ Field ☐ Home ☐ Other: _____

8) List name and address of all non-school work site(s):
Name: _____ _____

Address: _____ _____

Phone: _____ _____

9) Complete a Research Plan and attachment (See page F3) and attach to this form.
As you write your research plan make sure you follow the Minimum Quality Standards listed on the website for your type of project. More details are available in the handbook and on the web site:
http://www.societyfor science.org/document.doc.?id=14 (check out page 2 of the ISEF Form 1A online).

Research Plan and Attachment

Required For All Projects

A complete research plan must accompany the Student Checklist Form (1A). Additional pages must be included from one of the 3 options for the Detailed Research Plan located on the website. www-science-fair.org

QUESTION (SCIENCE) OR PROBLEM (ENGINEERING) BEING ADDRESSED:

What is the question you want to answer or the problem you want to solve? If you are designing and building an engineering invention, what need are you trying to fill?

SCIENTIFIC HYPOTHESIS OR ENGINEERING GOAL (see Handbook and/or website for details)

Science Project: Based on what you have read, make an educated statement of what you think might be true.

Engineering Project: If you are designing and building an engineering invention, state the engineering goals you will try to reach (See website engineering project info for guidance).

METHOD OR PROCEDURES

Using additional sheets, describe in great detail the methods and equipment you will use. Include any chemical concentrations or drug dosages as well as a list of any organisms or tissues and their sources. Insert the Detailed Research Plan (download from the website) with this Application Form.

- If your project requires people to answer questions, to fill in a survey or questionnaire, or to look at pictures, you must also attach a copy of the questionnaire or pictures that will be used.
- If using vertebrate animals, alternatives to their use must be explored and discussed in the research plan.
- For engineering projects, outline how you plan to design and test your project. Attach a diagram of any construction apparatus planned, including electrical circuits. Make sure you include a list of your design criteria.
- Projects involving rockets must comply with California State Law [see www.science-fair.org/src for details and forms].
- For Team projects, explain the role and responsibility of each team member. Submit one Application Form per team. In addition, include one Form (1B) for each team member.

BIBLIOGRAPHY

List the authors and titles of five (high school) or three (middle school) science or engineering books or articles that you have read and found useful for your research subject. Example: Author's Name, Year of publication. "Quoted Title" of magazine article or Title of book, date, volume, and number of magazine issue, page numbers read. If you use a website: www..urlname.ext, name of topic from the homepage, author, and date read.

1.

2.

3.

4.

5.

If your project uses animals, you must provide an additional animal-care reference.

6.

Checklist for Adult Sponsor (1)

This completed form is required for ALL projects.
Full text of the rules available at www.societyforscience.org/isef

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.
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:
   - ☐ Human
   - ☐ Vertebrate Animals
   - Potentially Hazardous Biological Agents: ☐ Microorganisms ☐ rDNA ☐ Tissues
5) Forms to be completed for **ALL PROJECTS**
   - ☐ Adult Sponsor Checklist (1)
   - ☐ Student Checklist (1A)
   - ☐ Research Plan
   - ☐ Parental Approval Form (1B)
   - ☐ Regulated Research Institutional/Industrial Setting Form (1C) (when applicable. Submit <u>after</u> completed experiment)
   - ☐ Continuation 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.)
  - ☐ 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).
  - ☐ 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)
  - ☐ Risk Assessment Form (3) required for projects involving protists, archae and similar microorganisms, for projects using manure for composting, fuel production, or other non-culturing experiments, (6A,6B, and Form 2 not required).
- ☐ **Hazardous Chemicals, Activities and Devices** (Prior approval is strongly recommended).
  - ☐ Risk Assessment Form (3)
  - ☐ Qualified Scientist Form (2) (required for projects involving DEA-controlled substances or when applicable).

Adult Sponsor's Printed Name	Signature	Date of Review prior to experimentation

Phone	Email

Approval Form (1B)

Each participant is required to complete this form.

1) REQUIRED FOR ALL PARTICIPANTS.

a) Student Acknowedgment:

- 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 research.
- I have read and will abide by the following Ethics Statement:

Scientific fraud and misconduct are not condoned at any level of research or competition. Such practices include 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 or the ISEF.

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

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

Parent/Guardian's Printed Name	Signature	Date of Approval (Must be prior to experimentation.)

Student's school information and/or photographs may be published to promote the Synopsys Championship

Official use only

2) TO BE COMPLETED BY THE SRC (Safety Review Committee)

(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** and all the required forms are included. My signature indicates approval of the **Research Plan** before the student begins experimentation.

SRC/IRB Chair's Printed Name

Signature

Date of Approval (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 (1C) and required institutional approvals (e.g. IACUC, IRB)**

SRC/IRB Chair's Printed Name

Signature

Date of Approval

NOTE: If a stamp is used, it must be initialed by the chairperson.

3) FINAL ISEF AFFILIATED FAIR SRC APPROVAL. (REQUIRED FOR ALL PROJECTS)

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

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

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

Minimum QUALITY STANDARDS

Find the type of project you are doing from the list below and review the minimum requirements for project acceptance. Make sure that the information described in the requirements list is included in the Research Plan attachment of your application.

Types of Science Fair Projects

Science Project: investigates the effects of changes or answers the question "Why?"
Engineering Project: solves a need or problem, and includes measurements of success.
Product Testing Project: tests and compares similar items using measurable endpoints.
Demonstration Project: shows how something works *[not accepted at this fair].*

Science Project minimum requirements

1. Subject: defines a testable question that begins Why?... or What is effect of a change in X on Y? (for example, 'What is the effect of a change in the amount of sunlight on the growth of tomato plants').
2. Bibliography: include references from your literature research.
3. Hypothesis based on your library research and knowledge. It is your best estimate of what will happen.
4. Experimental design
   - Define a control (a "standard" group) to which all test groups will be compared.
   - Define test groups where only one variable differs from the "control" group.
   - Define the measurable endpoint(s).
   - Each test group should contain a minimum of 3 objects being tested (seed, plant, rat, etc.). A group size of at least 10 is required for projects with human participants.
   - Plan to change only one variable in each test cycle. However, change the variable in several ways (several concentrations of a chemical, several temperatures, or several time points etc.).
   - Report measurements in metric units when possible.
   - Repeat the test more than once to see if your results are reproducible.

Engineering Project minimum requirements

1. Clearly define the problem or need the engineering project will solve.
2. Include bibliography from your literature research.
3. List design criteria and design constraints
   - Design criteria = physical and functional characteristics of the design (shape, weight, etc).
   - Design constraints/limitations (cost, time, available materials, etc).
4. Clearly state success criteria. What will you measure to see if your design worked?
5. Report measurements in metric units where possible.

Product Testing Project minimum requirements *[Grades 6 through 9 only]*

1. Clearly identify what kind of item (soap, fabric, etc.) you plan to test.
2. Define a test group of at least three similar items (Grades 6 and 7) or four similar items (Grades 8 and 9).
3. Include test criteria that:
   - Define what will be measured.
   - Describe how you will take measurements.
   - Report measurements in metric units, when possible.
   - Define criteria for "the best" (cleanest, largest, coldest, etc).
   - Repeat the test more than once to see if your results are reproducible.

Demonstration Projects show or explain "how something works".

Demonstration Projects are not accepted at the Synopsys Championship. What interests you about your project? Can you channel your interest into a Science, Engineering, or Product Testing Project? Ask your teacher for help. A demonstration often can be turned into an experimental science project by asking how something (another factor) affects the functioning of the item. Also, if a student likes to build things, a demonstration might become an engineering project.

Student Permission and Hold Harmless Agreement

Santa Clara Valley Science and Engineering Fair Association

I_____, as the parent/guardian of _____ , approve my child's participation in the Santa Clara Valley Science & Engineering Fair (Synopsys Championship), and assume responsibility for the oversight of the scientific research conducted by my child in association with the teachers/mentors as listed in my child's application packet.

I understand the Synopsys Championship is affiliated with the Intel International Science & Engineering Fair (Intel ISEF), and that the Intel ISEF rules, which are publicly available from the Intel ISEF web page, http://www.societyforscience.org/isef/rulesandguidelines, apply fully to the Synopsys Championship competition. My child and I are fully responsible for reading, understanding and adhering to the Intel ISEF rules. Failure to comply will result in rejection of my child's science project application and/or disqualification of the child's project entry at the actual event even if the application was approved.

I understand that Synopsys Championship high school division grand prize winners are invited to compete at the Intel ISEF, and that middle school grand prize winners can compete at the California State Science Fair (CSSF).

I give permission to Synopsys Championship and any news media in attendance at the Synopsys Championship, Intel ISEF and CSSF to photograph, videotape, and interview my child during the fair(s) and agree that recordings may be used, reproduced, and distributed without restriction by the Synopsys Championship, participating Santa Clara County school districts, and news media in news stories, publications and promotional activities.

I agree to hold harmless the Synopsys Silicon Valley Science & Technology Outreach Foundation, santa Clara Valley Science & Engineering Fair Association and their employees, agents and contractors against any liability and any claims resulting from my child's participation in the Synopsys Championship, and the subsequent CSSF and Intel ISEF events.

Date _____ Parent/Guardian **Signature**:_____

Note: Submission of this permission and hold harmless form, along with the required application packet and processing fee, does not connote acceptance of your child's project for the Synopsys Championship. Your child will be officially notified regarding his/her project acceptance (after review and approval of the application) by a posting of the word 'Approved' on the website, www.science-fair.org, (where the project will be listed by teacher). Please use the 'Project Status' link on the website homepage. The application processing fee is NOT refundable.

Photo Video/Website/Media Release Form

Santa Clara Valley Science and Engineering Fair Association

Dear Parent/Guardian:

On occasion, representatives from the media or the Santa Clara Valley Science & Engineering Fair Association wish to photograph, videotape, and/or interview students in connection with their participation in the Science and Engineering Fair. Educating the public is one of our organization's objectives. The entire community benefits from knowing about the needs and abilities of our students and about the program we offer to students and families in Santa Clara county.

In order to release student photos, video footage, comments and/or post on the Science Fair website or in brochures and fundraising materials, we need written permission. To give your consent, please complete the form below and submit it with the science fair application packet.

I, _____, parent/guardian of _____,

Give permission for my child to be photographed, videotaped, and/or interviewed by representatives from the media or the Santa Clara Valley Science & Engineering Fair for the purpose of publicizing the Science & Engineering Fair. I authorize the use and reproduction by the Santa Clara Valley Science & Engineering Fair Association for anyone authorized by the SCVSEFA of any and all photographs and/or videotapes taken of my child, without compensation to me/my child or other family members. All of these photographs/video recordings shall be the property, solely and completely, of the Santa Clara Valley Science & Engineering Fair Association. I waive any right to inspect or approve the finished photographs/videotapes, and the sound track, script or printed matter that may be used in conjunction with them.

Signature of parent/guardian_____ Date _____ ,

Address _____

Or

I am 18 years of age or older and I give my consent without reservations to the foregoing on my own behalf.

Signature of 18 year-old student_____ Date _____ ,

Address _____

One more IMPORTANT thing to do:

You need to submit a project proposal describing your research project in detail. Choose ONE of the following research plan proposals (depending on the design of your project):

(1) Product Testing Project (grades 6-9 only) or

(2) Scientific Research Project (grades 6-12) or

(3) Engineering Project (grades 6-12).

PDF interactive forms for these 3 project types are available on the FORMS page of the website.