

Expectations for students interested in participating in the Notre Dame Science and Engineering Fair

Note: This is only for students in grades 3-5 that are doing a Science Experiment. The top science experiment projects submitted by 3rd, 4th, and 5th grade students are eligible for entry in the Northern Indiana Regional Science and Engineering Fair at Notre Dame.

To prevent projects from being disqualified for the state science fair if chosen to advance, it is important that all projects have the necessary forms completed and have received proper approval from an Institutional Review Board (IRB) or Scientific Review Committee (SRC) before experimentation, if applicable. Below are guidelines for elementary school projects to help determine what forms are needed for each research project and what projects would need approval from an IRB or the SRC. All projects requiring IRB/SRC approval must complete all necessary forms and receive IRB/SRC approval **BEFORE** the student begins their research.

All forms can be found here: <https://www.societyforscience.org/isef/forms/>

For SRC approval and signatures, please send all forms to Dr. Twibell at ktwibell@phm.k12.in.us

Elementary and Middle School Research Guidelines

- Research involving the following is PROHIBITED: lasers, radiation, hazardous chemicals or reagents, DEA controlled substances, tobacco, alcohol, prescription drugs, firearms, explosives, microorganisms (bacteria, viruses, prions, fungi, parasites)
- Grades K-5: Research involving bacteria is PROHIBITED (this means they cannot advance to the State fair regardless of how they are judged, but they are still eligible for awards).

If projects will use vertebrate animals, humans, or bacteria the following forms need to be completed in addition to the Indiana Junior Division Project form. Forms can be found here: <https://www.societyforscience.org/isef/forms/>

- Research involving vertebrate animals including pets, also needs to be reviewed and monitored by a veterinarian. The following forms need to be completed:
 - Form 1: Fill out the appropriate checkboxes for vertebrate animals
 - Form 1A
 - Research Plan/Project Summary, including the “Vertebrate animal research” specific guidelines
 - Form 1B (needs SRC signature)
 - Form 1C: Fill out this form after experimentation if research will be conducted at a research institution
 - Form 2: Fill out if applicable
 - Form 5A: Fill out this form if research with vertebrate animal will be conducted at school or home **AND** receive SRC approval
 - Form 5B: Fill out this form if research with vertebrate animal will be conducted

at a research institution **AND** provide a copy of the research institution's IACUC or IBC approval

Research involving humans, such as collecting data through surveys, having individuals participate in physical activities, observing human behaviors, using another human to test a prototype/computer program, etc., must complete the following forms: - Form 1

- Form 1A
- Research Plan/Project Summary, including the "Human participants research" specific guidelines
- Form 1B (needs SRC signature)
- Form 4 **AND** receive IRB approval
- Human Informed Consent Form

Research involving bacteria (only allowed for grades 6-8 if conducted at a school certified as BSL-1) must complete the following forms:

- Form 1
- Form 1A
- Research Plan/Project Summary, including the "Potentially hazardous biological agents research" specific guidelines
- Form 1B (needs SRC signature)
- Form 3
- Form 6A: Fill out this form **AND** receive SRC approval

Flow charts summarizing this information are in the following pages.

Projects involving humans besides yourself, such as collecting data through surveys, having individuals participate in physical activities, observing human behaviors, using another human to test a prototype/computer program, etc.



Must complete forms **BEFORE** experimentation:

- Form 1
- Form 1A
- Research Plan/Project Summary, including the "Human participants research" specific guidelines
- Form 1B (needs SRC signature)
- Form 4 **AND** receive IRB approval
- Human Informed Consent Form

Projects involving vertebrate animals, including pets



Must complete forms **BEFORE** experimentation:

- Form 1: Fill out the appropriate checkboxes for vertebrate animals
 - Form 1A
 - Research Plan/Project Summary, including the "Vertebrate animal research" specific guidelines
 - Form 1B (needs SRC signature)
 - Form 1C: Fill out this form after experimentation if research will be conducted at a research institution
 - Form 2: Fill out if applicable
 - Form 5A: Fill out this form if research with vertebrate animal will be conducted at school or home **AND** receive SRC approval
 - Form 5B: Fill out this form if research with vertebrate animal will be conducted at a research institution **AND** provide a copy of the research institution's IACUC or IBC approval
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