

**GREATER SAN DIEGO SCIENCE & ENGINEERING FAIR (GSDSEF)
CERTIFICATION OF HUMANE TREATMENT OF VERTEBRATE ANIMALS FORM**

The SRC Pre-Approval Form and this form must be completed, signed, and approved by the GSDSEF Scientific Review Committee (SRC) BEFORE experimentation begins. If there are any questions or concerns about a student's project, contact Steve Rodecker, stevegsdsef@gmail.com. Save a copy or take a picture of this completed and signed form. The completed and signed Form must then be given to your teacher who will file it for quick reference if needed. **Remember that this form MUST BE COMPLETED, SIGNED, attached to the SRC Pre-Approval Form, SUBMITTED through your GSDSEF account, and APPROVED by the GSDSEF SRC before experimentation can begin.**

Student 1 Name (last, first, middle initial)

Student 2 Name (if applicable)

School

Grade(s) /

Teacher/Advisor

email

Project Title

The Student(s), and all who sign this form, MUST READ AND COMPLY with the live vertebrate animal humane treatment requirements of state, local, and federal laws and the California Education Code and the International Science & Engineering Fair (ISEF).

1) [California State Education Code Title 2, Division 2, Part 28, Chapter 4, Article 5, 51540](#). In the public elementary and secondary schools or in public elementary and secondary sponsored activities and classes held elsewhere than on school premises, live vertebrate animals shall not, as part of a scientific experiment or any purpose whatever:

- a) Be experimentally medicated or drugged in a manner to cause painful reaction or induce painful or lethal pathological conditions.
- b) Be injured through any other treatments, including, but not limited to, anesthetization or electric shock.

2) ISEF Rules: [See ISEF Rules for Vertebrate Animals](#) for Complete Information.

<p>1. All students are strongly encouraged to use Protista or other invertebrates instead of experimenting on vertebrates. Any vertebrates must be lawfully obtained in compliance with local, state, and federal laws.</p> <p>2. Vertebrate animals, as covered by these rules, are defined as:</p> <ul style="list-style-type: none">a. Live, nonhuman vertebrate mammalian embryos or fetusesb. Tadpolesc. Bird and reptile eggs starting three days (72 hours) prior to hatchingd. All other nonhuman vertebrates (including fish) at hatching or birth. See Exceptions for Zebrafish in ISEF Rules. <p>3. A Qualified Scientist or Designated Supervisor must directly supervise all research involving vertebrate animals, except for observational studies. A Qualified Scientist is defined as one who possesses an earned doctoral or professional degree in science or in a scientific discipline related to the research under consideration and has current working knowledge of the techniques to be performed. A Designated Supervisor is an individual who has been properly trained in the techniques and procedures to be used in the investigation as certified by the Qualified Scientist. Either the Qualified Scientist or Designated Supervisor must provide continuing supervision—with the exception of short trips-- to assure compliance with the protocol.</p> <p>4. At a Regulated Research Institution all vertebrate animal studies must be reviewed and approved before experimentation begins by an Institutional Animal Care and Use Committee. The GSDSEF SRC serves in this capacity for vertebrate animal studies performed in a school, home, or field.</p> <p>5. Vertebrate experiments performed WILL NOT involve toxicity, nutritional deficiency, physical or psychological stress or injury, or the sacrifice of the animals. No experiment involving anesthetics, drugs, thermal procedures, organisms pathogenic to humans or other vertebrates, ionizing radiation, carcinogens or surgical procedures may be undertaken except under the direct supervision of an experienced and Qualified Scientist or designated adult supervisor.</p>	<p>5. (<i>con'd</i>) Such experiments should be conducted in a regulated research institution and certified by a Qualified Scientist before experimentation.</p> <p>6. Research projects which cause more than momentary or slight pain or distress are prohibited. Any illness or unexpected weight loss must be investigated and a veterinarian consulted to receive required medical care. No vertebrate animal deaths due to the experimental procedures are permitted in any group or subgroup. Studies that are designed or anticipated to cause vertebrate animal death are prohibited.</p> <p>7. All animals will receive appropriate, nutritious food; adequate water; comfortable living quarters; humane treatment and gentle handling at all times (including week-ends, holidays and vacations). An animal care supervisor knowledgeable in the proper care and handling of experimental animals must assume primary responsibility for the conditions under which animals are maintained.</p> <p>8. All animals must be monitored for signs of distress. Because significant weight loss is one sign of stress, weight must be recorded at least weekly with 15% being the maximum permissible weight loss or growth retardation (compared to controls) of any experimental or control animal.</p> <p>9. Students are prohibited from designing or participating in an experiment associated with the following types of studies on vertebrate animals: Induced toxicity studies with known toxic substances that could cause pain, distress, or death, including but not limited to alcohol, acid rain, pesticides, or heavy metals or studies with the intent to study toxic effects of a substance on a vertebrate animal; behavioral experiments using conditioning with aversive stimuli, mother/infant separation or induced helplessness; Studies of pain. Predator/vertebrate prey experiments.</p>
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Research Plan

<p>1. Species to be used: common name and Genus, species; strain, sex, age, weight, and source of animals.</p>
<p>2. Address where experimentation/investigation will take place.</p>
<p>3. What is the purpose of your experimentation/investigation? Explain why a vertebrate must be used for experimentation. Justify the use of this species vs. an alternative.</p>
<p>4. Describe the methodology and procedures used in the experiment. This should include, but not be limited to, use of anesthetics, drugs, thermal procedures, physical stress, organisms pathogenic to humans and other vertebrates, radiation, carcinogen, or surgical procedures. Describe procedures that will minimize the potential for discomfort, distress, pain, or injury.</p>
<p>5. Describe how the animals will be maintained before, during, and after the experiment/investigation. Include type and frequency of food and water, bedding, temperature range, size of cage, and frequency of cleaning. What happens to the animals after experimentation?</p>

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Before experimentation can begin, you must

- 1) attach this completed, signed form and any other necessary form(s) to the SRC Pre-Approval Form in your GSDSEF account. Each additional form must either be in pdf format or a picture.
 - a) If research is conducted at a Regulated Research Institution (RRI), the Qualified Scientist must complete ISEF Form 2 (Qualified Scientist) and obtain written Institutional Animal Care and Use Committee (IACUC) approval. The ISEF Form 2 and the written IACUC approval must be uploaded with the SRC Pre-Approval Form. For other circumstances, see [GSDSEF Rules](#).
- 2) submit the SRC Pre-Approval Form and this/these attached form(s) to the SRC of the GSDSEF.
- 3) receive approval from the SRC of the GSDSEF.

Student Certification

I certify that I will follow State of California Education Code Title 2, Division 2, Part 28, Chapter 4, Article 5, Humane Treatment of Animals, and the Vertebrate Animal Rules and Guidelines of the International Science and Engineering Fair in conducting this project.

Student 1 Name

Student 1 Signature

Date

Student 2 Name (if applicable)

Student 2 Signature (if applicable)

Date

Teacher/Advisor Certification

I certify that I have reviewed and approved the Research Plan for this project and agree to sponsor and assume responsibility for compliance with State of California Education Code and ISEF Rules and Guidelines pertaining to the treatment of live vertebrate animals listed on page 1 of this form

Teacher/Advisor Name

Teacher/Advisor Signature

Date

Parent/Guardian Certification

I know my son/daughter will be using vertebrate animals for research and he/she must follow all California Education Code and ISEF rules.

Parent/Guardian 1 Name

Parent/Guardian 1 Signature

Date

Parent/Guardian 2 Name (if applicable)

Parent/Guardian 2 Signature (if applicable)

Date

Designated Supervisor/Adult Sponsor for Animal Care Certification (if necessary, see [GSDSEF Rules](#))

I certify that I have reviewed and approved the Research Plan for this project and I will supervise and accept primary responsibility for the quality of care and handling of the live vertebrate animals used in this project as listed on page 1 of this form. I certify I have been trained in the techniques to be used by this/these students and I will provide direct supervision of the research.

Adult Animal Care Supervisor's Name

email

Adult Animal Care Supervisor's Signature

Date

Qualified Scientist Certification (if necessary, see [GSDSEF Rules](#))

I certify that I have reviewed and approved the Research Plan of this project before experimentation begins. If experimentation is to be done at a Regulated Research Institution, I will fill out and sign ISEF [Qualified Scientist Form 2](#) and obtain written IACUC approval before experimentation commences. If I provide direct supervision or training elsewhere, I will fill out and sign ISEF [Qualified Scientist Form 2](#). I will ensure that all vertebrate animal rules of the California Educational Code Title 2, Division 2, Part 28, Chapter 4, Article 5, and the ISEF listed on page 1 of this form are adhered to. I will provide personal supervision, advice, or any necessary training of a Designated Supervisor.

Qualified Scientist Name

Degree

Signature

Date

Institution

Telephone

Address

email