

GREATER SAN DIEGO SCIENCE & ENGINEERING FAIR (GSDSEF)
PROJECT PROPOSAL/SIGNATURE* FORM (GSDSEF-1, 2015)

This form must be completed and signed prior to starting project work. It must be placed in the student's notebook with an ABSTRACT OF THE PROJECT for the GSDSEF

Screening Fair. (Use the "Tab" key to move from line to line)

1. Project Title What are the Impacts of Oil Spills on Backswimmers?

Is this a continuation of a previous project? Yes No

2. STUDENT'S NAME (Last, First, Middle) Phommavong, Bailey, Ummathaivey

2a. Partner's Name (for Senior Division 2 person projects only) _____

EACH SENIOR DIVISION PARTNER MUST SUBMIT A SEPARATE PROJECT PROPOSAL FORM.

3. Address, City, Zip 10621 Stony Ridge Way, San Diego, 92131

4. Phone (858) 566- 5386 email beau.phommavong@gmail.com

5. School Thurgood Marshall Middle School Grade 8th

6. Teacher Elaine Gillum

7. This project involves (check all that apply):

Live Vertebrate Animals (GSDSEF-2, 2015)

Humans as subjects, helpers, or interviewees (GSDSEF-3, 2015)

Hazardous Substances (anything that could cause injury) (GSDSEF-4, 2015)

Chemicals

Infectious Agents

Bacteria, Fungi and/or Molds

Mutagenic Agents

Carcinogenic Agents

Teratogenic Agents

Human or Other Vertebrate Tissue (GSDSEF-5, 2015)

8. WHERE REQUIRED (see #7 above), the following supplemental forms must be completed and included with the project proposal form (CHECK ALL THAT APPLY):

Certification of Humane Treatment of Live Vertebrate Animals (GSDSEF-2, 2015)

Certification of Compliance of Research Involving Humans (GSDSEF-3, 2015)

Certification of Hazards Control (GSDSEF-4, 2015)

Certification of Vertebrate Tissue Source & Safety (GSDSEF-5, 2015)

9. Location where experimental procedures will take place: At home.

10. People, companies, etc. providing equipment, materials, workspace: AJ Shephard

11. Describe, in 200 – 250 words, the planned project/experiment and the procedures to be used:

For my project, I will be testing the impact of diesel fuel on water boatmen, which are a close species of backswimmer insects. Backswimmers have been observed during the oil spills that unfortunately happened dangerously often. In 1978, studies and experiments were conducted using oil based Ultra Low Volume, or ULV formulas, to observe the insects. There were multiple behavior changes recorded in previous experiments or observations, I will be testing to see if I can match these results, or compare, if I get different results. Using different insects may give me different results, so I will be able to compare the results as well and observe any differences or similarities between the two species of insects. The water boatmen are similar to backswimmers, except for a small differences in their physical appearances, and the way they swim, and their appetite. Using the water boatmen may give different results, because they are not predatory, backswimmers are predatory insects. Backswimmers feed on small fish, which may be a reason that they stayed alive in experiments that used up to 50mL. Water boatmen are less tolerable of pollution, compared to backswimmers, so they might survive at less amount of diesel applied into the water.

Just before the screening fair, attach a 200-250 word ABSTRACT of your project to this form.

*Continue to next page for required Signatures

GREATER SAN DIEGO SCIENCE & ENGINEERING FAIR
(GSDSEF) PROJECT PROPOSAL/SIGNATURE FORM (GSDSEF-1, 2015)
REQUIRED SIGNATURES:

Student:

I have read the *Rules and Regulations* of the GREATER SAN DIEGO SCIENCE AND ENGINEERING FAIR and certify that my project complies with them. I understand that failure to meet the terms of these rules and regulations will result in the disqualification of my project.

SENIOR DIVISION: GSDSEF forms meet the requirements of California law; therefore, all Senior Division students agree that, should they be selected to compete at the 2015 Intel International Science and Engineering Fair (Intel ISEF), when they sign all required Intel ISEF forms they will predate them to agree with the date on this form.

Bairley Phommavong 9-1-14
Student Signature/Date

Parent/Guardian:

I am aware of all potential safety hazards connected with this project, approve the precautions being taken to ensure my student's safety and will, when appropriate, provide guidance and/or supervision. I understand that failure to comply with *Rules and Regulations* of the GREATER SAN DIEGO SCIENCE AND ENGINEERING FAIR will result in the disqualification of the project.

[Signature] 9-1-14
Parent Signature/Date

Teacher:

I approved this project prior to the student beginning work on it and verified that it complies with the *Rules And Regulations* of the GREATER SAN DIEGO SCIENCE AND ENGINEERING FAIR. Any concerns about the project's design, appropriateness, safety, or legality were submitted to the GSDSEF Scientific Review Committee (SRC) for approval prior to allowing the student to proceed. I understand that failure to comply with the Fair's *Rules And Regulations* will result in the disqualification of the project. I will provide all needed supervision (other than that specified on other included forms) and will ensure that this proposal and all required supplemental forms are included in the student's notebook at the screening fair. I will have the student, if invited to apply for entrance to the GSDSEF, submit all SRC requested certification forms with their 2015 Application for Entrance.

ESPG/L 9-14-14
Teacher Signature/Date

Additional Advisor (if required)

When certification forms (GSDSEF 2, 3, 4 or 5, 2015) are signed by someone in addition to the science teacher, a signature here ensures that the procedures described on these forms will be followed.

Additional Advisor Signature/Date