

**GUAM
SCIENCE &
DISCOVERY
SOCIETY**

**ATTENTION: Students, Teachers, and Parents
Information, Rules and Entry Forms for the
39th Annual Guam Island Wide Science Fair**

Tel (671) 477-3658 P.O. BOX 5154 University of Guam Station, Mangilao, GUAM 96923

This year's **39th Guam Annual Island Wide Science Fair** will be held **Saturday, May 13, 2017 8:30 A.M. - 4:00P.M.**, with set up **Friday, May 12, 2017 5:00 P.M. -7:00 P.M.** at the University of Guam Science Building. All participants must submit **entry forms by Friday, May 5, 2017. Completed entry forms are to be turned into the Governor's Office in Adelup at the Central Files Office.** Interested persons should read the entirety of these information sheets. If you have any questions please contact Claudia Taitano, youtheducationalservices@gmail.com or call (671) 482-1776 or 477-3658.

WHO CAN ENTER?

All Elementary, Middle/Junior, or Senior High level students from all public, private and DODEA schools are welcome. Enter even if you participated in another fair. If you did not win you have gained experience. You can now improve and perhaps finish better this time. **There is no limit to the number of entrants each school may have however it is recommended that schools send their top 6 winners, the first place winner in each of the 6 categories for each division. Some schools are larger than others and have large student populations competing and may send their top 2 or 3 winners in each category. If we do run out of tables each school may be required to bring one table for each 4 projects entered over their basic 6 entrants.** Projects should be the efforts of individual students, but group projects are acceptable. If school fairs are held please be sure to include at least your top winners from each category and grade level or more depending upon the number of students entered in your school fair. Group projects will **not** be considered for top overall awards. Groups may not be larger than 3 members. **Only one** trophy may be available for each place in each category, so group entries will have to decide how the trophy will be received if a group project wins.

HOW DO I ENTER?

A filled out copy of the 39th Annual Guam Island Wide Science Fair Entry Form must be submitted for each entry. A copy of the entry form is attached and additional copies should be made available through science teachers. Copies of Rules and forms are also available by email above and on the UOG webpage at www.uog.edu, Marianas Energy office, and Mc Donald's office. When filling in the Entry form please print clearly and supply all information. Note that **Completed forms must be turned into the Governor's Office at Adelup no later than 5PM, Friday, May 5, 2017. All research projects involving humans, animals, controlled substances, pesticides, hazardous chemicals, tissues and DNA, Stem cells projects must submit the Qualified Scientist Forms p 6, and have prior to experimentation Science Fair Review Board approval to participate.** Entry forms submitted **before May 5, 2017** will allow the science fair staff to deliver project numbers to your school in advance of the fair so you won't have to wait in line on set up day.

WHAT ARE THE SUBJECT CATEGORIES?

All projects will be placed in an appropriate category by the entrant(s) and or Science Fair administrators if there is a problem with the category selected by the entrant. The chief judge will settle any disputes. The categories are: 1) Ecology, Earth Science and Sustainability projects, 2) Physical Science, Computer and Math projects, 3) Human/Medical projects, 4) Animal/Plant projects, 5) Chemistry projects 6) Energy, Inventions including Engineering, and Robotic projects.

WHAT ABOUT SAFETY?

Living or dead animals or any potentially dangerous items must be properly displayed and or handled. No living or dead animals or cultures (petri dishes) or hazardous items may be brought to the science fair. Use pictures. **You MUST have a signed approval of a medical doctor if your project involves human research or a veterinarian if your project involves animals before conducting your research if your project involves animals or if your project serves as a pesticide, or involves use of hazardous chemicals or extracts from plants you must have the supervision of a trained chemist or biologist with a Phd. Contact Dr. Frank Camacho at the University of Guam science building for help finding an appropriate person to approve your project or Claudia Taitano at youtheducationservices@gmail.com. Blood, humans as test subjects, molds, RNA, DNA or stem cell and tissue cultures require an MD approval before beginning your project in order to meet International Science and Engineering Fair requirements and guidelines for student research. We support these guidelines and requirements. If you have any questions, or need copies of the required ISEF rules guidelines for grades 9-12 and forms contact Claudia Taitano at youtheducationservices@gmail.com. At set up time Scientific Review Committee members may check your project. No potentially dangerous projects will be allowed. Qualified Scientist forms are required in advance of research along with a plan for research. Failure to submit forms in the interest of safety may disqualify entrants from various prizes and participation.**

WHAT ARE THE GRADE GROUPINGS?

In determining the trophy awards this year the 39th Annual Island Wide Science Fair will utilize the following grade groupings: Level I grades K, 1, 2 ; Level II grades 3,4,5; Level III grades 6,7,8; Level IV grades 9,10,11,12. Grades K, and 1 usually have very few students, any students competing from these grades will be encouraged with a special consideration due to age. Age will be considered by the judges in the grade groupings and for some other prizes. Depending upon the number of entries grade grouping or category groupings may change.

HOW DO I SET UP MY PROJECT?

Projects must be set up at the University of Guam Science Building (first building on the left upon entering campus) before the Science Fair on Friday, May 12, 2017 between 5: 00 p.m. - 7:00 p.m. Enter the building by the center main entrance and check in at the registration desk. You are to be given a number that is to be securely stuck by you to the upper right hand corner of your project. **If your entry form is submitted before May 5, 2017 in advance of the deadline your project number will be delivered to your school and you will not have to wait in line.** Your project will be identified for the judges by your number. Please make conservative use of space. You may be expected to move your project somewhat should the room fill or if the science fair administrator requests you to move for some reason.

Make sure you have a poster or a display with your project title to attach your number to before you leave on set up day. You may take expensive equipment items home and bring them back in the morning, but make sure a poster or display is left on the table with your number on the top right hand side to reserve your space. No project will be accepted Saturday morning that hasn't been set up on Friday.

WAIVER OF LIABILITY:

There should be a Principal or teacher or parent responsible for supervising students from their school, at set up and during the science fair, home schooled students should have a parent at set up and during the fair. Babies and toddlers should not be brought to the Fair unless supervised and removed if they cry so they do not disrupt the judging or participant's projects. Participants and younger siblings are not permitted to run around or engage in any unsafe activities, no skateboarding is permitted during the fair. GSDS, Sponsors and UOG are not responsible for participants or siblings that is the responsibility of the parent or the participant's school. By signing the entry form it is agreed that the fair, GSDS its organizers, sponsors, judges and the University of Guam will not be held liable for any and all problems or injuries that may occur during set up, at the fair or at the awards ceremony or at space camp or ISEF if winners.

WHAT ARE THE PRIZES?

All participants will receive a **certificate** when their school representative attends the awards ceremony. The category winners will receive **trophies**, compliments of **Marianas Energy Co and IPE, Shell Guam**.

Delta Airlines, Marianas Energy Co and IPE, Shell Guam and the University of Guam provide major support for the fair. Other support is received from Pacific Daily News, KUAM, Mc Donald's, Payless Markets, Pepsi, Trident Consulting, Megabyte, NOAA, and others.

The Overall Grand Prize winner may receive:

***** A TRIP on DELTA Airlines TO THE NASA SPONSORED SPACE CAMP or SPACE ACADEMY for winner and chaperone in Huntsville Alabama. The winner and chaperone must have a valid passport as they will travel through Japan.**

Winners as young as 12 years old may qualify for the space camp prize. The flights, tuition and airfare only are covered for Space Camp. There are no accommodations for parents and adults at space camp, because this is a camp. There may be adult camps at a similar time. Students must share accommodations with others in the camp. There may be restrictions about some foreign nationals being allowed to attend Space Camp and Space Academy Camps.

Other Overall Division Winners may receive:

A computer tablet

Selected winners in the senior high division IV grades 9-12 may be eligible for a summer internship at the University of Guam.

Trophies and prizes for winners will be announced at the awards ceremony.

**** ALL PRIZES ARE SUBJECT TO THE RECEIPT OF THE SPONSOR'S DONATION.**

The Island Wide Science Fair organizers and GSDS are not responsible for prizes if the company donating them goes out of business or fails to follow through with their donation due to some unforeseen problem.

Other prizes may be made available by various Guam businesses later. Category trophies will be awarded and certificates. All prizes will be awarded at the Guam Hilton Hotel Awards Ceremony, scheduled for Friday, May 26, 2017 from 6:00 P.M. until 8:00 PM. A winner must be present or must send a representative to obtain his prize or trophy. Availability of prizes is dependent upon receipt of pledged donations. If Airlines go out of business or the business does not fulfill its pledged donation, GSDS will not be able to be responsible for the prize.

HOW ABOUT THE AWARDS CEREMONY?

This year's awards ceremony will be at the **Guam Hilton, Micronesian Ballroom**. **Light refreshments will be served, beginning at 6:00 P.M. Friday, May 26, 2017.** Trophies for category winners and prizes will be awarded to each individual winner. Pictures will be taken. This has always been a nice event. All entrants are encouraged to attend and to dress appropriately to having their picture in the newspaper. School uniforms are fine. Reasonable numbers of guests are of course acceptable, such as parents and teachers.

WHEN DO I HAVE TO REMOVE MY PROJECT FROM THE FAIR?

Projects cannot be removed until the fair is over. Project removal is scheduled between 3:00P.M - 4:00 P.M. on Saturday. Any student who removes a project before judging is concluded for the first round or while judging is going on for the second round in a room may cause their school to be disqualified from all awards. Removing projects early disrupts the fair and is very inconsiderate of those who are still being judged. There will be an announcement to remove projects if judging concludes early. When the fair is over please remove all projects from the building. If you wish to discard your project please carry it to the curb in front of the building, ideally to the left as you face the building, near the cans for that purpose. Any projects left after 4:00 P.M clean-up will be discarded to the front of the science building as classrooms must be used on Monday.

WHAT DO I DO DURING THE FAIR?

On Fair Day, Saturday May 13, 2017 be at the Science Building by 8:30A.M.. The first round of judging will occur in the morning and the second round of judging takes place in the afternoon. There will also be numerous visitors who are interested in viewing the projects. Please be available to discuss your project with judges and visitors. Parents and visitors may be asked to leave the room during the judging at the judge's discretion especially if it is too loud or disrupts the process. Participants and visitors are not allowed to run or skate in the hallways. Students are not permitted on the 2nd floor walkways between the science and health science building. Refreshments like hotdogs and drinks will be available for purchase. **No outside concessionaires will be permitted due to clean up problems.** You might also bring something to read or maybe playing cards or other quiet, seated activity. You must be present when the judges come to your project to answer the judge's questions.

If your project is missed it is your responsibility to bring this problem to the judge's attention. When the judges finish in each room they will announce that they are concluding the judging. If a judge has not signed your project number form it means you need to tell the judge you were not judged. Pay attention, do not leave the room your project is in until after you have been judged.

HOW WILL PROJECTS BE JUDGED?

There will be many judges, many of them are university professors with a doctorate in the category they are judging. Some of the judges are medical doctors and nurses and some have had specialized training with the Armed Forces. During the morning round of judging we try to have two judges as a pair visit each category and judge all project entries however if there are many projects you may have a single judge for the first round. Be prepared to briefly describe your project and or answer questions relating to your project. Greater basic credit is given to projects of a problem solving experimental nature and less credit to collections, models, displays, and demonstrations. Your display should provide enough information for a judge to determine what your project involves.

Judging criteria is taken from the criteria used in Hawaii Science and Engineering Fair and the International Science and Engineering Fair it includes:

Judging criteria:

- 1) Creative Ability- originality in question asked, methods, data analysis, and interpretation of data. (25%)
- 2) Scientific Thought- Use of appropriate engineering process if engineering project objectives and procedures clearly stated variables or potential users' needs well defined in case of inventive or engineering projects, relevant, and adequate testing of a problem solution is evident. (35%)
- 3) Thoroughness, purpose achieved, completeness of data and notes, knowledge of scientific literature and other approaches to problem solution. (15%)
- 4) Skill - evidence of student competence in lab, computation and design skills, craftsmanship of products, assistance received and type technical consultant help received. (15%)
- 5) Communication- project clearly described or explained, good use of language, easy to read. (10%)

The morning round of judging will determine first, second and third place in each group and category, 72 basic winners will be determined. After lunch five-six judges from each of the earlier pairs, will revisit selected first round 1st place winners and select four overall winners along with any special award winners. All judges' decisions are final. Judges will not be expected to critique student projects that is the teacher's role. Judging records are available to the fair's Major Sponsors and SRC committee. With over 700 entries many of them with partners last year, it is simply impossible to give individual feedback for each project to each participant, teacher or parent.

QUALIFIED SCIENTIST FORM: 39th Island Wide Science Fair

This form should be signed before the start of student experimentation. Required for all projects involving research on humans, animals, hazardous chemicals, devices or substances used as pesticides and controlled substances, molds, or pathogens, RNA, DNA, tissues. Teachers should require a project plan be turned in before approving all science projects. . GRADES 9-12 Be sure this form is attached.

Student's Name _____ Grade _____

Title of Project _____ School _____

To be completed by the Qualified Scientist: (Please print clearly or type)

Scientist's Name _____ Earned Advanced Degree _____

Degree Specialty _____

Position _____ Institution _____

Email Address _____ Phone _____

1) Will non human vertebrate animals be used?0 Yes 0 no

No vertebrate animals may die or be harmed as a result of student experimentation

2) Will human subjects be used?0 Yes 0 no

3) Will controlled or hazardous substances be used?0 yes 0 no

(includes DEA classed substances, prescription drugs, pesticides, alcohol and tobacco)

If yes,

a) Will they be used according to existing0 yes 0 no

local, state and federal regulations?

b) Please list the name(s) of the controlled or pesticide substance(s): _____

4) Will recombinant DNA be used?0 yes 0 no

5) Will pathogenic agents be used?0 yes 0 no

If yes, name(s) _____

If yes, will accepted procedures be used?0 yes 0 no

6) Will human blood, blood products or body fluids be used?0 yes 0 no

7) Will hazardous devices be used?0 yes 0 no

If yes, list or describe: _____

I certify that I have reviewed and approved an ISEF(IA) Research Plan. 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. The student will attach a Research Plan. If a regulated substance is used in this research, I certify that I possess a DEA license required for procuring and dispensing the substance. I understand that a Designated Supervisor is required when the student is not conducting research in my laboratory. If a pesticide or other hazardous chemical or device is used I certified that I have the appropriate certifications and that all research will be conducted under appropriate supervision. I certify that I have read the International Science and Engineering Fair Guidelines for student research and will comply with them.

Qualified Scientist's Printed Name _____

Signature _____

Date of Approval _____

Science Research: Guidelines for Science and Engineering Fairs for a pdf copy email: youtheducationalservices@gmail.com

39th ANNUAL ISLAND WIDE SCIENCE FAIR ENTRY FORM

DUE NO LATER THAN 5:00 P.M. Friday May 5, 2017

at The Governor's Office Complex Adelup at the Central Files Office

Name of participant: (Print or type all Information clearly)

Last Name _____ First Name _____ Middle Initial _____

Age _____ Grade _____ (required for affiliation) Male _____ or Female _____ Ethnicity _____

Home Address: _____ Village _____ Zip Code _____

Home (Saturday Emergency) Telephone No. _____ Email if available _____

Number of Participants involved in this project (1,2, or 3, in project) _____

If there is more than one participant staple together a separate entry form for each participant in the group. A maximum of 3 participants permitted in a group. Remember projects with more than one participant cannot compete for the top overall 1st place prizes and if they win a category place only one trophy may be given due to available funding.

A Working School Or Teacher Email Is Required To Receive Entry Numbers

Name of School: _____ Email _____

Teacher's Name: _____ Telephone No. _____ Email _____

Title of Project: _____

Category to be Entered In (Circle Only One Category):

- | | |
|---|--|
| 1. Ecology & Earth Science & Sustainability | 4. Plant/Animal |
| 2. Physical Science, Computers, & Math | 5. Chemistry |
| 3. Human/Medical | 6. Energy, Inventions, Engineering or Robotics |

Explain any special needs that your project might have for set up such as water, or electricity.

I understand the following may disqualify my project or are requirements that may disqualify the school's participation:

*No live animals, insects, petri dishes, molds, pesticides, controlled or hazardous substances or divises may be at the fair, use pictures.

*Project displays should not exceed 30 inches deep, front to back, 48 inches wide, side to side and 108 inches high, floor to top.

Email youtheducationalservices@gmail.com if you need more information about projects, rules or forms.

***A qualified scientist form p.6 + a plan must be attached for all projects involving vertebrate animals, controlled or hazardous substances, pathogens, pesticide projects DNA, RNA, stem cells, tissues and humans and should be signed before you start your project. *Remember each school must bring one folding table for every 4 projects beyond 6 entries if we run out of tables.**

* Students must send a representative to collect trophies or prizes at the awards ceremony if they can't attend.

* Press releases as to winners may only be sent out by Official Island Wide Science Fair Committee and or the UOG PIO.

***Set up for the fair is Friday, May 12, 2017 from 5 P.M. -7:00P.M. at the UOG Science Building.**

* All projects must be set up on Friday. No project will be accepted Saturday that has not been to set up.

***The Fair is from 8:30A.M.-3P.M. Clean up until 4 P.M. Saturday May 13, 2017.**

* Students must be present at 8:30 A.M. and stay until Judging concludes Saturday. Students may not run around, skate board, or be disruptive. A parent or teacher needs to be available from each school during the Fair and set up and must make sure students go home after the set up or the fair with an appropriate parent or guardian.

**** Parents agree to waive all liability for their son/daughter's participation towards UOG, Faculty, Judges, the Sponsors and GSDS should any problems arise. There are 7 pages of the rules & forms by signing I agree to abide by them.**

**** Address & Telephone numbers are required for the student in case of an emergency. School numbers do not work after school hours so student/parent contact numbers are required. All items need to be filled in on this form to be properly be entered.**

Participant's Signature _____ Date _____

Teacher's Signature _____ Date _____ Parent's Signature: _____ Date _____