Republic of the Philippines
Department of Education
REGION X - NORTHERN MINDANAO
SCHOOLS DIVISION OF EL SALVADOR CITY

September 22, 2025

DIVISION MEMORANDUM
No. 343, s. 2025

DIVISION SCIENCE AND TECHNOLOGY FAIR 2025

To: Assistant Schools Division Superintendent
Chief Education Program Supervisor
Education Program Supervisors
Secondary School Heads
Teachers
All Others Concerned

1. The Division of El Salvador City through the Curriculum Implementation Division will conduct the Annual **Division Science and Technology Fair (DSTF) 2025** on October 8 and 9, 2025, at Cogon National High School.

2. The DSTF encourages learners to develop critical thinking and problem-solving skills while encouraging creativity through scientific research. This year's DSTF will hold the following competitions:

Maximum Number of Learner Participants per School	
Tuklas - Life Science Category (4)	
Individual	1
Team	maximum of 3
Tuklas - Physical Science Category (4)	
Individual	1
Team	maximum of 3
Tuklas - Mathematics and Computational Science Category (4)	
Individual	1
Team	maximum of 3
Tuklas - Robotics and Intelligent Machines Category (4)	
Individual	1
Team	maximum of 3
STEM Innovation Expo (4)	
Individual	1
Team	maximum of 3
TOTAL	**20**

3. Abstracts must be submitted via online to mariejade.cacayan@deped.gov.ph with a subject format: DSTF_SCHOOL_CATEGORY (ex. DSTF_MOLUGANNHS_LS-I). On or before October 2, 2025.

4. Schools are to submit three (3) soft-bound copies of color-coded manuscripts, accomplishment reports and winning entries of school level science fair on or before October 2, 2025.

5. Enclosed are the guidelines for Division Science and Technology Fair 2025 – 2026.

6. The winners in all contest categories shall be recognized based on the sum of rankings given by all three members of the Board of Judges (BOJ). The participant or team with the lowest total ranking across the three judges will be declared the winner. In the event of a tie, the assigned BOJ for the category shall deliberate to break the tie. The decision of the BOJs is final and irrevocable.

7. Travel and other incidental expenses shall be charged to school MOOE/local funds, subject to the usual accounting and auditing rules and procedures.

8. Participation shall be subject to the *no-disruption-of-classes policy* stipulated in DepEd Order No. 09, s. 2005 entitled Instituting Measures to *Increase Engaged Time-On-Task and Ensuring Compliance Therewith*. The concerned school head is advised to assign teachers to handle the classes of the identified teacher-participant.

9. This Office shall adhere to Equal Opportunity Principle (EOP) in the steps undertaken for this purpose. Hence, all decisions and actions shall be based on guidelines set forth, with no discrimination on the account of age, gender, identity, sexual orientation, civil status, disability, religion, ethnicity or political affiliation.

10. Immediate and wide dissemination of this Memorandum is desired.

RANDOLPH B. TORTOLA
Schools Division Superintendent

Encl: As stated

To be indicated in the Perpetual Index
under the following subjects:

LEARNING AREA, SCIENCE
CONTESTS

CID/ mjac

(Enclosure No. 1 to Division Memorandum No. _____ s. 2025)

Guidelines on the Division Science and Technology Fair 2025 – 2026

1. The competition is open to Grades 9-12 learners of both public and private high schools who may not reach the age of 20 on or before May 1 of the current school year.

2. Learners may work individually or in team, with 2-3 members from the same school. Each learner is only allowed to submit one (1) research project in one (1) of the four (4) research categories. The project should include no more than 12 months of continuous research and should not include research activities performed before January of the previous school year (e.g. for school year 2024 – 2025 with target opening of classes on August 2024 and ISEF on May 2024 research projects may be accomplished within 1-12 month/s starting from January 2024 to January 2025).

3. The first-place winners in each category at the Division Level shall represent the division to the Regional STF competition.

4. The participation of schools shall be clustered into five categories: Life Science, Physical Science, Mathematics and Computational Science, Robotics and Intelligent Machines and STEM Innovation Expo.

Maximum Number of Learner Participants per School	
Tuklas - Life Science Category (4)	
Individual	1
Team	maximum of 3
Tuklas - Physical Science Category (4)	
Individual	1
Team	maximum of 3
Tuklas - Mathematics and Computational Science Category (4)	
Individual	1
Team	maximum of 3
Tuklas - Robotics and Intelligent Machines Category (4)	
Individual	1
Team	maximum of 3
STEM Innovation Expo (4)	
Individual	1
Team	maximum of 3
TOTAL	**20**

5. The following are the forms and manuscripts to be submitted in ALL levels of the competition:
    a. Research Plan
    b. FORMS for all projects
        i. Student Checklist (1A)
        ii. Research Plan
        iii. Approval Form (1B)
        iv. Regulated Research Institutional/ Industrial Setting Form (1C)
        v. Checklist for Adult Sponsor
    c. Project Data Logbook
    d. Research Paper Format
        i. Introduction
        ii. Methods
        iii. Results
        iv. Discussions
        v. Conclusions
        vi. References
    e. Abstract (Maximum of 250 words)
    The abstract should include the following:
        i. Title
        ii. Purpose
        iii. Procedure
        iv. Observations/Data/Results
        v. Conclusion
    f. Project Evaluation Form

(Attachment No. 1 to Division Memorandum No. _____ s. 2025)

(Enclosure No. 3 to DepEd Memorandum No. 016, s. 2025)

TUKLAS RESEARCH PAPER FORMAT

I. RESEARCH PLAN

This is to be written prior to experimentation, following the instructions below to detail the rationale, research questions, methodology, and risk assessment of the proposed research. (This is compiled separately from the rest of the research manuscript.)

All projects should include the following:

a. *Rationale:* Include a brief synopsis of the background that supports your research problem and explain why this research is important, and if applicable, explain any societal impact of your research.
b. *Research Question or Problem* being addressed
c. *Goals/Expected Outcomes/Hypotheses*
d. *Procedures:* Detail all procedures and experimental design to be used for data collection.
e. *Risk and Safety:* Identify any potential risks and safety precautions needed.
f. *Data Analysis:* Describe the procedures to be used to analyze the data/results that answer research questions or hypotheses.
g. *Bibliography:* List at least five (5) major references (e.g., science journal articles, books, internet sites) from your literature review using the APA Manual of Style. If you plan to use vertebrate animals, one of these references must be an animal care reference.

II. PROJECT DATA LOGBOOK

A project data logbook is an organizational tool used by student researchers to organize and record the narrative and evidence of the research activities, including the planning, research design, drawings/illustrations, procedures, data collection, analysis and presentation, inferences, and conclusions. Detailed and accurate notes in paragraphs or bullets show consistency and thoroughness, which will be helpful when writing the research paper. It is also recommended to use hard-bound record notebooks instead of spring notebooks to avoid tearing out pages, to write entries using permanent pens, and to minimize erasures. Procedures in flow charts and data organized using tables are also helpful. It may be a little 'messy', but be sure to accurately record qualitative and quantitative data (with unit of measurement). Each data logbook entry should also be dated and signed by the supervising adult (if applicable) during the research activity.

III. RESEARCH PAPER FORMAT

Science Project

1. *INTRODUCTION* - What relevant background information supports your research problem/ questions?

   - Explain what is known or has already been done in your research area. Include a brief review of relevant literature. If this is a continuation project, a summary of your prior research is appropriate here. Be sure to distinguish your previous work from this year's project.

- Include a brief description on how your project will address an issue, concern, or problem. Explain why this research is important and any societal impact of your research.

2. *METHODS* – What procedures were carried out for the experimentation?
   - Explain in detail what you did. What data did you collect, and how did you collect that data? Discuss your control group and the variables you tested.
   - Discuss your control group and the variables you tested. The statistical treatment used and handling and disposal of waste may be included if applicable.
   - DO NOT include a list of materials.

3. *RESULTS* - What were the result(s) of your project?
   - Include tables and figures which illustrate your data.
   - Include relevant statistical analysis of the data.

4. *DISCUSSION* - What is your interpretation of these results?
   - What do these results mean? Compare your results with theories, published data, commonly held beliefs, and expected results.
   - Discuss possible errors. Did any questions or problems arise that you were not expecting? How did the data vary between repeated observations of similar events? How were results affected by uncontrolled events?

5. *CONCLUSIONS* - What conclusions did you reach?
   - What do these results mean in the context of the literature review and other work being done in your research area? How do the results address your research question? Do your results support your hypothesis?
   - What application(s) do you see for your work?

6. *REFERENCES* - What are your sources?
   - This section should not exceed one page. Limit your list to the most important references.
   - List the references/documentation used which were not of your own creation (i.e., books, journal articles).
   - Your reference list should be written based on the American Psychological Association. For more information, you may visit this link: https://apastyle.apa.org/

Engineering Project

1. *INTRODUCTION* - What is your engineering problem and goal?
   - What problem were you trying to solve? Include a description of your engineering goal.
   - Explain what is known or has already been done to solve the problem, including work on which you may build. You may include a brief review of relevant literature.
   - If this is a continuation project, a brief summary of your prior work is appropriate here. Be sure to distinguish your previous work from this year's project.

2. *METHODS*- What are your methods and procedures for building your design?
   - Explain what you did. How did you design and produce your prototype? If there is a physical prototype, you may want to include pictures or designs of the prototype.
   - If you tested the prototype, what were your testing procedures? What data did you collect, and how did you collect that data?
   - DO NOT include a separate list of materials.

3. *RESULTS* - What were the result(s) of your project?
   - How did your prototype meet your engineering goal?
   - If you tested the prototype, provide a summary of testing data tables and fi$_{gu}$ res that illustrate your results.
   - Include relevant statistical analysis of the data.

4. *DISCUSSION* - What is your interpretation of these results?
   - What do these results mean? You may compare your results with theories, published data, commonly held beliefs, and/ or expected results.
   - Did any questions or problems arise that you were not expecting? Were these problems caused by uncontrolled events? How did you address these?
   - How is your prototype an improvement or advancement over what is currently available?

5. *CONCLUSIONS* - What conclusions did you reach?
   - Did your project turn out as you expected?
   - What application(s) do you see for your work?

6. *REFERENCES- What* are your sources?
   - This section should not exceed one page. Limit your list to the most important references.
   - List the references/documentation used which were not of your own creation (i.e., books, journal articles).
   - Your reference list should be written based on the American Psychological Association. For more information, you may visit this link: https://apastyle.apa.org/

Mathematics and Computational Science Pro(ect

1. *INTRODUCTION* - What is your research question?
   - Explain what is known or has already been done in your research area. Include a brief review of relevant literature.
   - If this is a continuation project, a brief summary of your prior work is appropriate here. Be sure to distin$_{gu}$ ish your previous work from this year's project.

2. *FRAMEWORK* - What is your framework?
   - Introduce the concepts and notation needed to specify your research question, methods, and results precisely.
   - Define relevant terms, and explain prior/ background results. (Novel concepts developed as part of your project can be presented here or in Section 4, as appropriate.)

3. *FINDINGS* – What are your findings and supporting arguments?
   - What did you discover and/or prove? Describe your result(s) in detail. If possible, provide both formal and intuitive/verbal explanations of each major finding.
   - Describe your methods in general terms.
   - Present rigorous proofs of the theory results – or, if the arguments are long, give sketches of the proofs that explain the main ideas
   - For numerical/statistical results, include tables and figures that illustrate your data. Include relevant statistical analysis. Were any of your results statistically significant? How do you know this?

4. *CONCLUSIONS* - What is your assessment of your findings
   - How do the results address your research question? And how have you advanced your readers' understanding relative to what is already known?
   - Discuss possible limitations. Did any questions or problems arise that you were not expecting?
   - What challenges do you foresee in extending your results further?
   - What application(s), if any, do you see for your work?

5. *REFERENCES* – What are your sources?
   - This section should not exceed one page. Limit your list to the most important references.
   - List the references/documentation used which were not of your own creation (i.e., books, journal articles).
   - Your reference list should be written based on the American Psychological Association. For more information, you may visit this link: https://apastyle.apa.org/

IV. ABSTRACT

The abstract should be 250 words or less. Do not discuss specific aspects of the research in detail, including experimental procedures and statistical methods. Any information that is unnecessary to include in a brief explanation should be saved for the written research paper or the project exhibit board.

If the project is a continuation from a previous year, the abstract should only summarize the current year's work. If it is necessary to mention supporting research from the previous year(s), it must be minimal.

If the abstract text includes special characters, such as mathematical symbols, which cannot be translated electronically, spell out the symbol.

Do not include acknowledgments in the abstract. There should be no references to mentors, institutional facilities, and awards or patents received.

Title
Finalist's Name (or names, if a team project)
School Name, City and Region

Purpose

- An introductory statement providing background or the reason for investigating the project topic.
- A statement of the problem the research is looking to solve or the questions being tested.

Procedure

- A brief overview of how the investigation was conducted, highlighting key points and including methods and resources used.
- Do not provide details about materials used in the research unless they greatly influenced the procedure or were needed to conduct the investigation.
- An abstract should only include procedures done by the Finalist. Do not include work done by a mentor (such as surgical procedures) or work done prior to the Finalist's involvement.

Observations/Data/Results

- This section should provide key results that lead directly to the conclusions.
- Do not include unnecessary data or observations about the results, nor tables, charts, graphs, or other images. While these belong in the research paper or the project board, they do not belong in the formal ISEF abstract.
- Unless significant, do not include any of the experimental design difficulties encountered in research.

Conclusions

- This section should be confined to a short summary in 1-2 sentences. It is a reflection on the research process and results, which may include conclusive ideas, important applications, and implications of the research.
- The ISEF abstract does not include a bibliography.
- ISEF requires the bibliography as part of the research plan to be provided on Form 1A.

Ethics Statement

- Scientific fraud and misconduct are prohibited at any level of research or competition.
- Plagiarism, use or presentation of other research's work as one's own, and fabrication of data will not be tolerated. Fraudulent projects are disqualified from the competition.

(Attachment No. 2 to Division Memorandum No. _____ s. 2025)

(Enclosure No. 4 to DepEd Memorandum No. 016, s. 2025)

TUKLAS PROJECT POSTER DISPLAY FORMAT AND SAFETY GUIDELINES

Display Guidelines

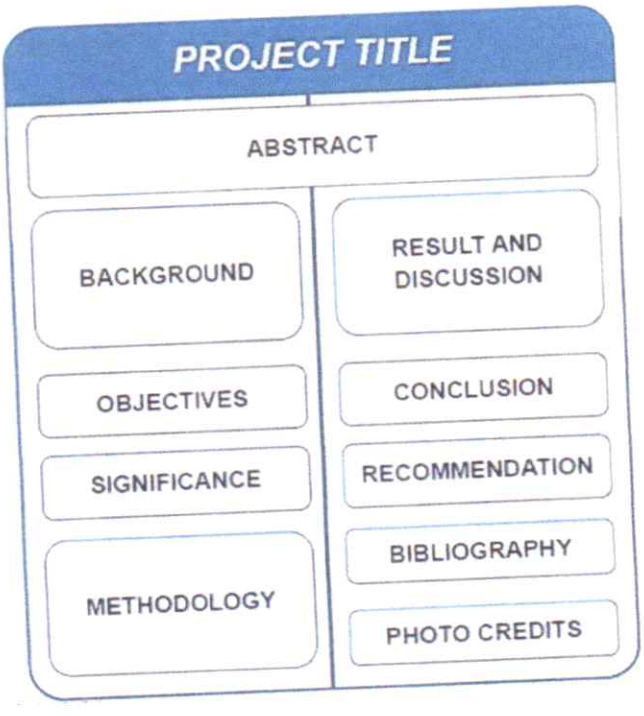
The project display using photo paper summarizes the research project and must focus on the proponent's work for this year's study, with only minimal reference to previous research, if applicable. Tarpaulins will not be used at any level of Science Fair competition in support of the government's environmental advocacy in reducing the consumption of non-biodegradable or non-recyclable materials.

The safety regulations must adhere to or be consistent with the guidelines set by the International Science and Engineering Fair (ISEF).

The project poster display should include the following items: Abstract, Background, Objectives, Significance, Methodology, Results and Discussion, Conclusion, Recommendations, Bibliography, and, if applicable, Photo Credits (including illustrations and graphics).

Project Poster Display Dimension

The dimensions of the project poster display should be 36 inches wide and 67 inches in height.



Research Logbook:
These forms do NOT need to be in this particular order, just present in the logbook.
1. Signed ISEF Abstract
2. Signed Checklist for Adult Sponsor Form 1
3. Student Checklist Form 1A
4. Research Plan
5. Signed Approval Form 1B
6. All other pertinent ISEF forms

Photography/Images:
Display of photographs other than that of the learner/s MUST have a photo release signed by the subject, and if under 18, also by the guardian of the subject.

Any photography, visual image, chart, table, and/or graph is allowed if:

1. It is not deemed offensive or inappropriate (which includes images/photos showing vertebrate animals/ humans in surgical, necrotizing or dissection situations) by the SRC, Display & Safety Committee.
2. It has a credit line of origin.
3. If it is from the Internet, magazine, newspaper, journal, etc., and a credit line is attached.
4. It is a photograph or visual depiction of the finalist.
5. It is a photograph or visual depiction for which a signed consent form is at the project.
6. Images used as backgrounds must also be credited.

Items NOT Allowed to be Displayed with the Project:
1. Awards, medals, business cards, flags, logos, CDs, DVDs, flash drives, brochures, booklets, endorsements, giveaway items, and/or acknowledgments (graphic or written) unless the item(s) are an integral part of the project.
2. Postal addresses, Internet, email and/or social media addresses, QR codes, telephone and/or fax numbers of a student.
3. Active internet or email connections as part of the display or operating the project.

Safety Guidelines
Items NOT Allowed at the Project poster display:
1. Living organisms, including plants
2. Soil, sand, rock, and/or waste samples, even if permanently encased in acrylic
3. Taxidermy specimens or parts
4. Preserved vertebrate or invertebrate animals
5. Human or animal food
6. Human or animal parts or body fluids
7. Plant materials (living, dead, or preserved) that are in their raw, unprocessed, or non-manufactured state (Exception: manufactured construction materials used in building the project or display)
8. All chemicals, including water (projects may NOT use water in any form in a demonstration)
9. All hazardous substances or devices (i.e., poisons, drugs, firearms, weapons, ammunition, reloading devices, lasers, etc.)
10. Dry ice or other sublimating solids
11. Sharp items (i.e., syringes, needles, pipettes, knives, etc.)
12. Flames or highly flammable materials
13. Batteries with open-top cells
14. Glass or glass objects, unless deemed by the Display & Safety Committee to be an integral and necessary part of the project
15. Any apparatus deemed unsafe by the Scientific Review Committee, the Display & Safety Committee of the Fair

Other Safety Restrictions:
1. Any inadequately insulated apparatus producing extreme temperatures that may cause physical burns is not allowed.
2. Any apparatus with unshielded belts, pulleys, chains, or moving parts with tension or pinch points must be for display only.
3. Project sounds, lights, odors or any other display items must not be distracting.
4. The Display & Safety Committee and/or the Scientific Review Committee at various levels of the Science Fair reserve the right to remove any project for safety reasons or to protect the integrity of the NSTF and its rules and regulations.

SAMPLE ABSTRACTS

2018 ISEF Second Grand Award, Energy Physical	2024 REGENERON ISEF National Geographic Society Excellence in Geography and Geospatial Science Award
Solar-Tracking Adaptive Robot PV Panels By Cadores, Keith Russel ; Rivera, Eugene ; Manzanero, Joscel Kent Adviser: Johnny T. Samino The leading sources of energy globally are oil, coal, and natural gas - fossil fuels that can be depleted, and whose access and use greatly impact the environment. Hence, much study has been made of renewable energy sources and use, including harnessing solar power through a photovoltaic cell. The study aimed to improve the power harvesting and generating capacity of photovoltaic cells by designing and building a solar device that mimics a flower opening when the sun is out, tracks the sun's movement, closes when the light source is no longer detected and responds to humidity and temperature to maximize power generation. Six (6) photovoltaic panels are mounted on a base operated by servo motors and controlled by Arduino module. Electronics, servo motors, Arduino, and humidity sensors were acquired commercially. Other material included those repurposed from a broken umbrella and electric fan, and scrap acrylic sheets. The device's performance was compared to that of a fixed-mounted photovoltaic panels at different angles. The fixed setup generated 4.71W while the petal panels produced 6.95W, a 47.72% increase. Taxing the power consumption of the device to the power it generates gives an average of 6.09W. This translates to a 29.29% improvement from the 4.71W generated by the fixed panel setup. T Test for Dependent Means was used and showed that there is a significant difference between the power generations of the two setups (p= 0.000261, a = 0.05). This robotic design amplifies capacity to harness solar power through a photovoltaic cell.	**Flood Mitigation of Tarlac City Through 3D Simulation of Groundwater Discharge to Flood Inundation Using Rainfall Prediction and Integration of Spatio-Temporal GIS in Hydrodynamic Models** By Arnon Yzabel G. Guinto Adviser: Nica Joyce Aquino The Philippines, ranking as the third most vulnerable nation to natural disasters on a global scale, faces escalating danger posed by typhoons and floods, resulting in significant human casualties, property destruction, and economic repercussions. Among the regions susceptible to such hydrological threats, Tarlac City stands out as particularly prone to inundation. This research aims to address this challenge by proposing the development of a 3D spatio-temporal Geographic Information System (GIS) along with a hydrodynamic model, specifically designed to replicate flood inundation induced by rainfall, groundwater discharge dynamics, and surface flooding occurrences in Tarlac City. It emphasizes its proficient application of advanced methodologies for flood prediction and risk assessment within Tarlac City. Results showed that the Long- Short Term Memory Neural Network effectively anticipates rainfall patterns, while hydrological data facilitated the development of a 3D digital elevation map. The elevation of the areas ranges from 44.69 ft to 57.55 ft, while the low-lying area, Amucao, has an elevation of 24.38 ft to 32.5 ft. This information supplements groundwater discharge data to create a flood inundation model, enabling the identification of flood-prone regions. Moreover, areas in San Vicente, San Roque, Part San Sebastian, San Isidro, Maliwalo, Matatalaib, Tibag, F. Tañedo were prone to minimal to severe risks of flooding. In conclusion, this research augments the disaster preparedness within barangays in Tarlac City susceptible to flooding, contributing significantly to risk mitigation.

(Attachment No. 3 to Division Memorandum No. _____ s. 2025)

(Enclosure No. 5 to DepEd Memorandum No. 016 , s. 2025)

STEM INNOVATION EXPO PAPER FORMAT

Title Page and Table of Contents:

The title page and table of contents allow the reader to follow the organization of the paper quickly.

Introduction:

1. **Features and Specifications** – This describes the details of your innovation.

2. **Market Trends and Opportunities** – This part of the report must include three items: an explanation of what inspired you to develop this invention, a description of the problem your invention will solve, and a detailed account of how you confirmed that your invention does not exist yet. Additionally, identify similar products currently on the market and explain how your invention differs.

Materials and Methods:

Describe in detail how you made your innovation. Explain what materials were used and how you put them together to make your invention. Your report should be detailed enough so others can repeat the steps and make your invention. Directions on how to use the invention are also necessary here. You must include detailed drawing(s) of your invention.

Results and Discussion:

This is the essence of your paper. Compare your results with theoretical values, published data, literature and related studies, commonly held beliefs, and/or expected results. Include a discussion of possible errors, statistics, graphs, pages with your raw collected data, etc. How did the data vary between repeated observations of similar events? How were your results affected by uncontrolled events? What would you do differently if you repeated this project? What other experiments should be conducted?

Conclusions:

This discusses the potential applications, possible customer benefits, and the impact of the findings/results in solving problems and issues of today and tomorrow.

Acknowledgements:

This part gives credit to those who have assisted you, including individuals, businesses, and educational or research institutions.

References/Bibliography:

Your reference list should be written based on the APA Manual of Style.

TITLE	The title should be short but would capture the essence of the product/invention
PICTURE	Picture of the product/invention only
OVERVIEW	What problem is solved by the invention? What are the existing solutions and what limitations do these solutions have?
KEY FEATURES	What are the novelty features of this invention?
BENEFITS AND IMPACTS	What are the benefits/impact of this invention?
DEVELOPER'S NAME	Who is/are the inventors?

Specifications: Each Project Poster Display must be 36 inches wide and 67 inches in height (portrait style)

(Attachment No. 4 to Division Memorandum No. _____ s. 2025)

(Enclosure No. 6 to DepEd Memorandum No. 016, s. 2025)

CHECKPOINTS FOR SRC REVIEW

TYPE OF FORM	WHO WILL FILL OUT?	WHEN TO FILL OUT?	WHEN IT IS REQUIRED?
Form 1 - Checklist for Adult Sponsor	Research Adviser	Before experimentation	Required for all Projects
Form 1A - Student Checklist	All student researchers	Before experimentation	Required for all Projects
Form 1B - Approval Form	All student researchers	Before experimentation	Required for all Projects
Research Plan/Project Summary	All student researchers	Before experimentation	Required for all Projects
Form 1C - Regulated Research Institution/ Industrial Setting Form	Adult supervising	After experimentation	Required if research conducted in a regulated research institution, industrial setting or any work site other than home, school or field
Form 2 - Qualified Scientist Form	Qualified Scientist/ Adult Supervising	Before experimentation	Required if research involving human participants, vertebrate animals, potentially hazardous biological agents and hazardous
Form 3 – Risk Assessment Form	Student Researcher/s Qualified Scientist/ Adult Supervising	Before experimentation	Required for all Projects
Form 4 – Human Participants Form	Student Researcher/s Institutional Review Board	Before experimentation	Required if research involves human participant **if in a regulated research institution use institutional approval forms*
Form 4A – Human Informed Consent Form	Student Researcher/s	Before experimentation	Required if research involves human participant

TYPE OF FORM	WHO WILL FILL OUT?	WHEN TO FILL OUT?	WHEN IT IS REQUIRED?
Form 5A – Vertebrate Animal Form	Student Researcher/s Scientific Review Committee Veterinarian Designated Supervisor Qualified Scientist	Before experimentation	Required for all research involving vertebrate animals that is conducted in a school/home/field research site
Form 5B – Vertebrate Animal Form	Student Researcher/s Qualified Scientist	Before experimentation	Required for all research involving vertebrate animals that is conducted in Regulated Research Institution
Form 6A – Potentially Hazardous Biological Agents Risk Assessment Form	Student Researcher Qualified Scientist/Designated Supervisor Scientific Review Committee	Before experimentation	Required for research involving microorganisms, rDNA, fresh/frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products and body fluids.
Form 6B – Human and Vertebrate Animal Tissue	Student Researcher Qualified Scientist/Designated Supervisor	Before experimentation	Required for research involving fresh/frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products and body fluids. If the research involves living organisms, please ensure that the proper human or animal forms are completed.
Form 7 – Continuation/ Research Progression Projects Form	Student Researcher	Before experimentation	Required for projects that are a continuation/ progression in the same field of study as previous project.

~~(Attachment No. 5 to Division Memorandum No. _____ s. 2025)~~

(Enclosure No. 7 to DepEd Memorandum No. 016, s. 2025)

LEARNERS MEDIA RELEASE CONSENT FORM

I, _____, hereby give my consent to appear or for my work/performance to appear in any recording, film, photograph, audiotape, or videotape of the Department of Education (DepEd) and its representatives in relation to the National Science and Technology Fair for the School Year 2024 – 2025, and for the same to be used for the communications and various public campaigns of DepEd, be it in print, broadcast, and/or electronic media.

I also grant to the right to edit, use, and reuse said products for nonprofit purposes including use in print, on the internet, and all other forms of media.

I also hereby release the Department of Education and its and employees from all claims, demands, and liabilities whatsoever in connection with the above.

I certify that I have read the Media Consent and Release Form and fully understand its terms and conditions.

Agreed and accepted by

Signature of Learner: _____
Date: _____
Address of Learner: _____

Parental Consent:

I certify that I am the parent or guardian of, _____, a minor under the age of eighteen years. I hereby agree to assume legal responsibility of his/her authorizations referred to in this Form.

_____
Parent/Guardian Signature Over Printed Name

Address: _____
Date: _____

(Attachment No. 6 to Division Memorandum No. _____ s. 2025)

(Enclosure No. 9 to DepEd Memorandum No. 016, s. 2025)

REPORT OF THE CONDUCT OF THE STF

The consolidated report of the conduct of the STF must be submitted to the National Science and Technology Fair Technical Working Group before the conduct of the National Level Science Fair. The report should include the following:

1. **Title**
2. **Table of Contents**
3. **Introduction/Rationale**
4. **Detailed Information**
   - General information
   - List of SRC members (name, designation, and affiliation)
   - SRC Deliberation (include the results, findings and recommendations)
   - Program of Activities (day-to-day activities)
   - List of Entries (include a brief profile of the research adviser of each entry)
   - List of Winners (Research & Innovation Congress)
   - Trend Analysis (results from 3 consecutive years)
   - Financial Report
5. **Conclusions**
6. **Recommendations**
7. **Appendix**

LIST OF FORMS AND DOCUMENTS REQUIRED FOR SUBMISSION IN ALL LEVELS OF COMPETITION

The following are the forms and manuscripts for submission in ALL levels of the competition:

1. **Research Plan**
2. **Forms for all the Projects**
   - Checklist for Adult Sponsor (1)
   - Student Checklist (1A)
   - Research Plan (NOTE: No need to attach the Research Plan Instructions.)
   - Approval Form (1B)
   - Regulated Research Institutional/Industrial Setting Form (1C)
3. **Forms depending on the type of research (e. g involving humans, vertebrate animals, hazardous chemicals, etc.**
   - Qualified Scientist Form (2)
   - Risk Assessment Form (3)
   - Human Participants Form (4)
   - Human Informed Consent Form
   - Vertebrate Animal Form (5A)
   - Vertebrate Animal Form (5B)
   - Potentially Hazardous Biological Agents Risk Assessment Form (6A)
   - Human and Vertebrae Animal Tissue Form (6B)
   - Continuation Project Form (7)
4. **Abstract (Maximum of 250 words) The abstract should include the following:**
   - Purpose of the experiment
   - Procedure
   - Data conclusion
   - The abstract may NOT include the following: Acknowledgement AND Work of procedures done by the mentor
5. **Research Paper**
6. **Project Evaluation Form**
7. **Scanned copy of the logbook in PDF format**

(Attachment No. 7 to Division Memorandum No. _____ s. 2025)

(Enclosure No. 10 to DepEd Memorandum No. 016, s. 2025)

OFFICIAL LIST OF PARTICIPANTS TEMPLATE

(This template should be accomplished and submitted with the official endorsement.)

Region: _____

No.	First Name	Middle Initial	Last Name	Grade level	School Name	Division	Gender	Category Code	Resesarch Adviser (FN, MI, SN)

Data	Total	Data	Total
No. of female		No. of Robotics and Intelligent Machines Project Entries	
No. of male		No. of Mathematics and Computer Sciences Project Entries	
No. of participating schools		Grade 7 Student Participants	
No. of participating private schools		Grade 8 Student Participants	
No. of Participating SPSTEM Schools		Grade 9 Student Participants	
No. of Participating SPSTEM Male Students		Grade 10 Student Participants	
No. of Participating SPSTEM Female Students		Grade 11 Student Participants	
No. of Individual Project Entries		Grade 12 Student Participants	
No. of Team Project Entries		No. of Participating Teachers	
No. of Life Sciences Project Entries			
No. of Physical Scienes Project Entries			

Note:

- *This template should be accomplished in an MS Excel spreadsheet, attached to the official endorsement, and sent through nstfadeped.gov.ph on or before December 16, 2024.*
- *Include all schools that participated in the Division STF.*
- *Insert the corresponding symbol before the name of the school classified as:*
  - \+ *Special Science Classes of S&T Oriented High Schools or Science, Technology, and Engineering (STE) Program*
  - ++ *Legislated Science High School (LSHS)*
  - Δ *Regional Science High School (RSHS)*
  - ΔΔ *Philippine Science High School (PSHS)*

Prepared by: _____
Email address: _____
School/Office: _____
Regional Coordinator: _____

(Attachment No. 8 to Division Memorandum No. _____ s. 2025)

(Enclosure No. 11 to DepEd Memorandum No. 016, s. 2025)

PROJECT LABELING AND CODING

FOLDER CODE	CONTENT OF THE FOLDER	SAMPLE CONTENT OF THE FOLDER FOR FORMS
LS-I-R01 **Life Science-Individual-Region*	**Manuscript:** **LS-I-R01-School Name**	
	Folder Containing the Needed Forms **LS-I-R01-Forms** **Name of the folder where all the soft-copies of the necessary forms are found*	**LS-I-R01-Form1** **LS-I-R01-Form2** **LS-I-R01-Logbook**

CODES	COLOR CODING
LS-I	GREEN
LS-T	YELLOW
PS-I	BLUE
PS-T	ORANGE
RIM-I	PINK
RIM-T	BROWN
MCS-I	RED
MCS-T	PURPLE
STEMIE-I	BLACK
STEMIE-T	WHITE

(Attachment No. 9 to Division Memorandum No. _____ s. 2025)

(Enclosure No. 14 to DepEd Memorandum No. 016, s. 2025)

A. REVIEW AND RECOMMENDATION REPORT

Project Title: _____

Fair Category: [ ] LS-I [ ] LS-T [ ] PS-I [ ] PS-T
[ ] MCS-I [ ] MCS-T [ ] RIM-I [ ] RIM-T

Instruction: *Please put a check [ ] in the appropriate column and if necessary, write recommendations on the space provided*

PART 1: REQUIRED FORMS FOR ALL RESEARCH	COMPLETE	INCOMPLETE	RECOMMENDATIONS
1. Checklist for Adult Sponsor (1). Is it accomplished and signed?			
2. Student Checklist 1A. Is it complete and signed?			
If the answer to Item 6 of Form 1A is **YES**, Form 7 must also be accomplished (See Part 2, Item 13 below)			
If answer to item 8 is **Research Institution or Other**, must also have Form IC (See Part II, item 6 below)			
3. **Research Plan** (Attachment to item 2, above). Does it include the following:			
A. RATIONALE. Does it Include a synopsis of background information that supports the research problem and explains why the research is important scientifically? If applicable, does it explain the societal impact of the research?			
B. HYPOTHESIS(ES), RESEARCH QUESTION(S), ENGINEERING GOAL(S), EXPECTED OUTCOMES. Is this based on RATIONALE?			
C. RESEARCH METHODS AND CONCLUSIONS. **a. Procedures.** i. Does it show all procedures and experimental designs, including methods for data collection? ii. There should be NO inclusion of work of mentor or others. iii. Parameters should NOT be too strict to allow for possible changes.			
b. Risk and Safety. Does it identify all potential risks and safety precautions needed?			

c. Data Analysis. Does it describe all procedures for data analysis? Parameters should NOT be too strict to allow for possible changes.			
D. BIBLIOGRAPHY. Does it have at least 5 major references? If using vertebrate animals, include 1 reference on animal care. (APA Manual of Style)			
Note: Items 3.E-H are needed ONLY for research on HUMAN PARTICIPANTS, VERTEBRATE ANIMAL, POTENTIALLY HAZARDOUS BIOLOGICAL AGENTS (see attached Research Plan/Project Summary Instructions)			
E. HUMAN PARTICIPANTS RESEARCH. Does it provide for the following? a. Description b. Recruitment c. Methods d. Risk Assessment e. Protection of Privacy f. Informed Consent Process			
F. VERTEBRATE ANIMAL RESEARCH. Does it provide for the following? a. Potential ALTERNATIVES to vertebrate animal use b. Potential impact or contribution of research c. Detailed procedures d. Detail animal numbers, strain, sex, age, source, etc. e. Describe housing and oversight of daily care f. Disposition of animals at study termination			
G. POTENTIALLY HAZARDOUS BIOLOGICAL AGENTS RESEARCH. Does it provide for the following? a. Biosafety Level (BSL) Assessment and determination b. Source of agent, specific cell line. c. Safety precautions d. Methods of disposal			
4. Approval Form 1B (for ALL students)			
5. Abstract			

VERY IMPORTANT 2: See Part 2, Item 8 Risk Assessment Form (3) for:

a. studies involving protists, archaea, and similar microorganisms;
b. research using manure for composting, fuel production, or other non-culturing experiments;
c. commercially available color change coliform water test kits. These kits must remain sealed and must be properly disposed;
d. studies involving the decomposition of vertebrate organisms (such as in forensic projects); and
e. studies with microbial fuel cells.

PART 2: ADDITIONAL REQUIRED FORMS	COMPLETE	INCOMPLETE	RECOMMENDATIONS
6. Regulated Research Institutional or Industrial Setting Form (1C). Must be completed AFTER experimentation by the adult supervising the student research conducted in a regulated research institution or any work site aside from home, school or field. **Is it properly accomplished and signed by the DESIGNATED SUPERVISING ADULT?**			
7. Qualified Scientist Form (2). For research with human participants, vertebrate animals, potentially hazardous biological agents, Drug Enforcement Administration (DEA)-controlled substances; completed and signed BEFORE start of experimentation. **Is it properly accomplished and signed by the QUALIFIED SCIENTIST?**			
8. Risk Assessment Form (3). For research using hazardous chemicals, activities or devices and microorganisms exempt from pre-approval. Must be completed BEFORE experimentation. **Is it properly accomplished and signed by DESIGNATED SUPERVISING ADULT OR QUALIFIED SCIENTIST (when applicable)?**			
9. Human Participants Form (4), For research involving human participants not at a Regulated Research Institution. **Did the the DESIGNATED ADULT SUPERVISOR/ INSTITUTION approve the research BEFORE experimentation?**			

10. Vertebrate Animal Form (5A) – for research involving vertebrate animals that is conducted in a school/home/ field research site. A. Is it properly accomplished, approved and signed by SRC BEFORE experimentation? B. Is it properly accomplished, approved and signed by DESIGNATED VETERINARIAN BEFORE experimentation? C. Is it properly accomplished, approved and signed by DESIGNATED SUPERVISOR OR QUALIFIED SCIENTIST (as applicable) BEFORE experimentation?			
11. Vertebrate Animal Form (5B) – for research involving vertebrate animals that is conducted at a Regulated Research Institution. A. Does it have IACUC approval BEFORE experimentation? B. Is it properly accomplished, approved and signed by a QUALIFIED SCIENTIST/ PRINCIPAL INVESTIGATOR?			
12. Potentially Hazardous Biological Agents Risk Assessment Form (6A) – for research involving microorganisms, rDNA, fresh/ frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products and body fluids. A. Does it have SRC/IACUC/ Institutional Biosafety Committee (IBC) approval BEFORE experimentation? B. Is it properly accomplished, approved and signed by a QUALIFIED or DESIGNATED SUPERVISOR BEFORE experimentation? C. Is it properly accomplished, approved and signed by the SRC BEFORE experimentation? D. Human Vertebrate Animal Tissue Form (6B) – for research involving fresh/ frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products and body fluids. If research involves living organisms, ensure that the proper human or animal forms are completed. All research using any tissue listed above must also complete Form 6A. Is it properly accomplished, approved and signed by a QUALIFIED or DESIGNATED SUPERVISOR BEFORE experimentation?			

13. Continuation/Research Progression Projects Form (7) – for research that area continuation/progression in the same field of study as previous research. A. This form MUST be accompanied by the PREVIOUS YEAR'S ABSTRACT and RESEARCH PLAN B. Is it properly accomplished, approved and signed by the student/s?			

PART 3: RESEARCH PAPER (See attached IMRAD Format)	**COMPLETE**	**INCOMPLETE**	**RECOMMENDATIONS**
1. COVER PAGE A. Is the research title present B. Is/Are the name/s of the student proponent's present C. Is/Are the appropriate persons credited? (The Research adviser and Research Consultants, if applicable MUST be present)			
2. INTRODUCTION A. Does it outline the research question and its significance within the topic discussed, making its relevance clear to readers in a CONCISE manner?			
3. METHOD a. Does it clearly and comprehensively provide the reader with a description of the methods used in the research?			
4. RESULTS A. Does it clearly and comprehensively SHOW the reader what the research came up with? This should be the MAIN section of the paper.			
5. DISCUSSION A. Does this show what the findings in RESULTS mean?			
6. LIMITATIONS ON THE RESEARCH DESIGN AND MATERIAL A. Does this show knowledge and understanding of research limitations?			
7. CONCLUSION, NOTES, WORKS CITED AND APPENDICES /BIBLIOGRAPHY A. Does the conclusion briefly and clearly analyze what the paper proposed, discussed and concluded? B. Is there in (MLA format) possible Researcher Notes, the research paper's Works Cited and possible appendices?			

PART 4: RESEARCH ABSTRACT 250 WORDS (MAX)	COMPLETE	INCOMPLETE	RECOMMENDATIONS
1. Does it clearly and concisely state the PURPOSE OF THE RESEARCH?			
2. Does it clearly and concisely state the PROCEDURE/S undertaken in the RESEARCH?			
3. Does it clearly and concisely state the DATA collected from the RESEARCH?			
4. Does it clearly and concisely state the CONCLUSIONS OF THE RESEARCH?			

VERY IMPORTANT: There should be NONE of the following:
Acknowledgements of the research the student were working institutions and/or mentors with which
a. Self-promotions and external endorsements
b. Inclusion of work or procedures done by the mentor

PART 5: RESEARCH LOGBOOK	COMPLETE	INCOMPLETE	RECOMMENDATIONS
1. Is the logbook intact and not tampered with? It should NOT be loose leafed.			
2. Does the START DATE in the logbook match the START DATE in Student Checklist (1A)?			
3. Does the END DATE in the logbook match the END DATE in Student Checklist (1A)?			
4. Are all the entries in the logbook properly dated?			
5. Does the logbook show accurate and detailed notes and findings throughout the course of the research? Does it include data tables, and the like?			
6. Does the logbook show accurate and detailed description of procedures and processes conducted in the course of the research?			
7. Does the logbook show student notes and questions in the course of the research?			

[ ] Qualified [ ] Disqualified Reviewed by: _____ Date: _____

Reason/s for Disqualification: _____

SOURCE: SOCIETY FOR SCIENCE

B. STEM Innovation Expo Screening Form

Title of the Project		
Individual/Team		
Project Proponent/s		
Criteria	**Weight**	**Rating**
Originality and Creativity	35%	
Community Connection & Impact	25%	
Market Attractiveness	25%	
Utilization of Patent Information	15%	
TOTAL	100%	
Comments:		

_____

Signature Over Printed Name
Date Signed:

(Attachment No. 10 to Division Memorandum No. _____ s. 2025)

(Enclosure No. 15 to DepEd Memorandum No. 016, s. 2025)

A. PROJECT EVALUATION FORM

Title of the Research Project: _____
Code: _____
Fair Category: [ ] LS-I [ ] LS-T [ ] PS-I [ ] PS-T
[ ] MCS-I [ ] MCS-T [ ] RIM-I [ ] RIM-T

CATEGORY	SCORE
CREATIVE ABILITY (30) 1. Does the project show creative ability and originality in the: a. questions asked? b. approach to solving the problem? c. analysis of the data? d. interpretation of the data? e. use of equipment? f. construction or design of new equipment 2. Creative research should support an investigation and help answer a question in an original way. 3. A creative contribution promotes an efficient and reliable method for solving a problem. When evaluating project, it is important to distinguish between gadgeteering and ingenuity.	
SCIENTIFIC THOUGHT (30) *(If an engineering project, please see Engineering Goals.)* 1. Is the problems stated clearly and unambiguously? 2. Was the problem sufficiently limited to allow plausible attack? Good scientists can identify important problems capable of solutions. 3. Was there a procedural plan for obtaining a solution? 4. Are the variable clearly recognized and defined? 5. If controls were necessary, did the student recognize their need and were they used correctly? 6. Are there adequate data to support the conclusions? 7. Does the finalist/team recognize the data's limitations? 8. Does the finalist/team understand the project's ties to related research? 9. Does the finalist/team have an idea of what further research is warranted? 10. Did the finalist/team cite scientific literature, or only popular literature (e.g. local newspapers, Readers Digest)? **ENGINEERING GOALS** 1. Does the project have a clear objective? 2. Is the objective relevant to the potential user's needs? 3. Is the solution: workable? Acceptable to the potential user? Economically feasible? 4. Could the solution be utilized successfully in design or construction of an end product? 5. Is the solution a significant improvement over previous alternatives or application? 6. Has the solution been tested for performances under the conditions of use?	
THOROUGHNESS (15) 1. Was the purpose carried out to completion within the scope of the original intent? 2. How completely was the problem covered? 3. Are the conclusions based on a single experiment or replication? 4. How complete are the project notes? 5. Is the finalist/team aware of other approaches or theories? 6. How much time did the finalist or team spend on the project? 7. Is the finalist/team familiar with scientific literature in the studied field? 8. Are the relevant details (including the pages and dates) of the experiment recorded in the research data logbook?	

SKILL (15) 1. Does the finalist/team have the required laboratory, computation, observational and design skills to obtain the supporting data? 2. Where was the project performed (i.e. home, school laboratory, university laboratory) Did the student or team receive assistance from parents, teachers, scientists or engineers? 3. Was the project completed under adult supervision, or did the student/team work largely alone? 4. Where did the equipment come from? Was it built independently by the finalist or team? Was it obtained on loan? Was it part of a laboratory where the finalist/team worked?	
CLARITY (10) 1. How clearly does the finalist or team discuss his/her/their project and explain the purpose, procedure, and conclusions? Watch out for memorized speeches that reflect little understanding of principles. 2. Does the written material reflect the finalist's or team's understanding of the research? 3. Are the important phases of the project presented in an orderly manner? 4. How clearly is the data presented? 5. How clearly are the results presented? 6. How well does the project display explain the project? 7. Was the presentation done in a forthright manner, without tricks or gadgets? Did the finalist/team perform all the project work, or did someone help?	
Total	
Signature Over Printed Name of Judge	

SOURCE: SOCIETY FOR SCIENCE

(Attachment No. 11 to Division Memorandum No. _____ s. 2025)

STEM INNOVATION EXPO - EVALUATION FORM

CRITERIA	WEIGHT	RATING
ORIGINALITY AND CREATIVITY • The project developed new theoretical model or frameworks that gives significant contribution in Science. • The project applied the use of existing technology in new and creative ways to solve scientific problems. • The project challenge conventional methodologies	35%	
COMMUNITY CONNECTION AND IMPACT • The project creates solutions to address challenges in the community such as food security, agriculture, health, environment, and energy conservation. • The project has immediate significant practical applications.	20%	
MARKET ATTRACTIVENESS • The project has strong demands from potential customers and end-users. • The project has high potential for generating substantial revenue and profitability. • The project is aligned with current and future market trends.	20%	
PROJECT PITCHING • The project provides clear articulation of the project overview, objectives, and its significance. • The project highlights scientific principles or engineering concepts used.	15%	
UTILIZATION OF PATENT INFORMATION • The project is at least applied either online or in-person for patent at the Intellectual Property Office of the Philippines (Provide a copy of application)	10%	
TOTAL	**100%**	

_____
(Signature over Printed Name)

(Attachment No. 12 to Division Memorandum No. _____ s. 2025)

PROJECT POSTER DISPLAY - EVALUATION FORM

PROJECT POSTER DISPLAY CODE: _____

CRITERIA	DESCRIPTION WITH CORRESPONDING POINTS			SCORE
LOCAL ORGANIZATION OF MATERIAL (35%) This asseses how well the content is structured and how easily the audience can follow the information. A logical flow of information helps in understanding the project better.				
30-35 points Exceptional organization of information	**20-29 points** Excellent flow of information but transitions can be improved	**10-19 points** Some organization, but the presentation of information could be improved	**1-9 points** Lack of content, structure, and coherence	
CLARITY OF VISUAL AND ADHERENCE TO THE FORMAT (30%) This involves clear texts and well-labeled graphics. Legends can significantly enhance comprehension and engagement. The poster adheres to the prescribed format and contains all the needed information.				
25-30 points High-quality visuals. Graphics enhanced understanding significantly. Poster adheres to the prescribed format and contains all the needed information	**17-24 points** Relevant and easy-to-understand visuals but some can be improved. Some elements do not adhere to the prescribed formate and lacks at most 2 needed information	**9-16 points** Visuals are somewhat clear. Most of the elements do not adhere to the prescribed format and lacks 3-4 needed information	**1-8 points** Visuals are unclear or irrelevant. The poster does not adhere to the prescribed format and lacks more than 4 needed information	
SUPPORTING DOCUMENTATION DISPLAYED (10%) This involves any relevant supplemantary materials provided alongside the poster. Examples include references, data tables, or detailed figures which add depth and credibility to the presentation.				
9-10 points Comprehensive and robust supplementary materials which adds depth and credibility to the presentation	**6-8 points** Adequate number of supplementary materials that support the presentation	**3-5 points** Some supplementary materials are irrelevant	**1-2 points** Minimal or no supplementary materials	
INTERVIEW (25%) The ability of the presenter to articulate and explain their project during an interview is essential. It shows their understanding and ability to communicate their work effectively				
22-25 points Exceptional interview performance	**15-21 points** Insightful and clear answers and proficient discussion of the project	**8-14 points** Basic understanding of the project	**1-7 points** Inadequate responses or lack of understanding of the project	
TOTAL				

_____
(Signature over Printed Name)
JUDGE
Date Signed: _____