



Republic of the Philippines  
Department of Education  
NATIONAL CAPITAL REGION  
SCHOOLS DIVISION OFFICE OF MUNTINLUPA CITY

Office of the Schools Division  
Superintendent

OCT 04 2024

MEMORANDUM

**DIVISION SCIENCE, MATHEMATICS, AND TECHNOLOGY FAIR 2024  
FOR THE SECONDARY LEVEL**

To: Assistant Schools Division Superintendent/  
Chief Education Supervisor, Curriculum Implementation Division  
Education Program Supervisor  
Public Elementary and Secondary School Heads/OICs  
All Others Concerned

1. This Office announces the conduct of Division Science and Technology Fair 2024 for the Secondary Level on October 11, 2024- Wednesday, 8:00am-5:00pm at 4th Floor Building A, Sucat Senior High School, informing teachers in the field on the above-captioned subject, the contents of which are self-explanatory, for information and appropriate action.
2. Attached is the list of participants and matrix.
3. Immediate and wide dissemination of this Memorandum is desired.

  
**VIOLETA M. GONZALES**

Assistant School Division Superintendent  
Officer -in -Charge  
Office of the Schools Division Superintendent

Encl: As stated.

Reference:

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

TEACHERS

LEARNERS

PROGRAMS

LEARNING DELIVERY

ABSO/DM 2024 DIVISION SCIENCE, MATHEMATICS, AND TECHNOLOGY FAIR 2024 FOR THE SECONDARY LEVEL

\_\_\_\_\_/October 2, 2024



Student Center for Life Skills Bldg., Centennial Ave, Brgy. Tunasan, Muntinlupa City  
8805-9935, 8805-9940  
[sdo.muntinlupa@gmail.com](mailto:sdo.muntinlupa@gmail.com)  
[depd-muntinlupa.com](http://depd-muntinlupa.com)



**Republic of the Philippines**  
**Department of Education**  
 NATIONAL CAPITAL REGION  
 SCHOOLS DIVISION OFFICE OF MUNTINLUPA CITY

**DIVISION SCIENCE and TECHNOLOGY FAIR 2023**  
**LIST OF PARTICIPANTS**

Life Science Category		Number of Entries		Number of Entries
Individual				
Team				
Physical Science Category		Number of Entries	Muntinlupa National HS	Number of Entries
Individual				
Team				
Robotics and Intelligent Machines		Number of Entries	Muntinlupa National HS	Number of Entries
Individual				
Team				
Mathematics and Computational Science Category		Number of Entries	Muntinlupa National HS	Number of Entries
Individual				
Team				
National Science Innovation Expo		Number of Entries		Number of Entries
Individual				
Team				
<b>TOTAL</b>				

**Program Management Team**

Mrs. Carmelita Razon - Muntinlupa Elementary School  
 Ms. Catherine V. Santos - Putatan Elementary School  
 Ms. Mae Cabriga - Bayanan Elementary School- Main  
 Ms. Racquel B. Bernal - Muntinlupa National High School  
 Ms. Marilu R. Lorzano - Muntinlupa Science High School  
 Dr. Armida S. Oblinada - EPS Science  
 Mr. Lambert G. Quesada - EPS Mathematics

**Guests**

3 Judges



Student Center for Life Skills Bldg., Centennial Ave, Brgy. Tunasan, Muntinlupa City  
 8805-9935, 8805-9940  
[sdo.muntinlupa@gmail.com](mailto:sdo.muntinlupa@gmail.com)  
[deped-muntinlupa.com](http://deped-muntinlupa.com)

**Enclosure No. 1-A Official Delegates to RSTF 2024**

- A. If all projects are approved by the Regional Scientific Review Committee (RSRC), there shall be a maximum number of 40 official participants per division. Substitutes are not allowed.

The description and maximum number of official participants are the following:

Description of Official participants per Division/ Regional Science HS	Maximum Number of Participants		TOTAL
	Participants	Coach	
<b>Life Science Category</b>			
Individual	1	1	2
Team	3	1	4
<b>Physical Category</b>			
Individual	1	1	2
Team	3	1	4
<b>Robotics and Intelligent Machines Category</b>			
Individual	1	1	2
Team	3	1	4
<b>Mathematics and Computational Science Category</b>			
Individual	1	1	2
Team	3	1	4
<b>Science Innovation Expo (SIE)</b>			
Individual	1	1	2
Team	3	1	4
<b>TOTAL</b>	<b>20</b>	<b>10</b>	<b>40</b>

The official representatives of the are the **SDO first place winner/s** in the DSTF.

## Enclosure No. 1-B Guidelines on the RSTF 2024

### GUIDELINES ON THE REGIONAL SCIENCE AND TECHNOLOGY FAIR (RSTF) 2024

The 2024 Regional Science and Technology Fair (RSTF) is in line with the National Science and Technology Fair which is an ISEF-affiliated fair. As such, the requirements for affiliated fairs should be met and followed as stated in the ISEF 2024-2025 guidelines

#### 1. The Research Competition

The competitions will be conducted among **Grade 9 to Grade 12** learners from both public and private schools. The **first-place winners in each of the categories at the DIVISION level** shall represent the SDO to the Regional STF competition as approved by the Regional Scientific Review Committee (SRC).

The competition will start at the school level advancing to the division, regional, national, then to the international level. Regional Science High Schools (RSHSs) are expected to join the regional fair directly. RSHSs may submit only one entry per category. The participation of schools in the RSTF shall be clustered into five major categories: Life Science, Physical Science, Robotics and Intelligent Machines, Mathematics and Computational Science, Science Innovation Expo.

Life Science (LS)		Physical Science (PS)		Robotics and Intelligent Machines (RIM)		Mathematics and Computational Science		Science Innovation Expo	
Individual Project	Team Project	Individual Project	Team Project	Individual Project	Team Project	Individual Project	Team Project	Individual Project	Team Project

#### RESEARCH CATEGORIES

##### Life Science

This category deals with living organisms such as plants, microorganisms, and animals including humans and their life processes. Projects that involve systematic observation, development, experimentation, and understanding of living things and biological processes belong to this category. Subcategories include Animal Sciences, Biomedical and Health Sciences, Cellular and Molecular Biology, Microbiology, Plant Sciences, and Translational Medical Science.

##### Physical Science

This category deals with the nature and properties of non-living matter, energy and systems. Projects that involve systematic observation, development, experimentation, and understanding of materials and phenomena belong to this category. Subcategories include Astronomy, Chemistry, Earth and Environmental Sciences, Energy, Engineering Technology, Statics and Dynamics, Sustainable Materials and Design, Environmental Engineering, Materials Science, and Physics.

### **Robotics and Intelligent Machines**

This category deals with the design, implementation, and use of prime technologies and machine intelligence in providing a wide range of innovative solutions and advancements across multiple disciplines to reduce reliance on human intervention. Subcategories include Biomechanics, Cognitive Systems, Control Theory, Machine Learning, and Robot Kinematics.

### **Mathematics and Computational Sciences**

Mathematics deals with the measurement, properties, and relationships of quantities and sets using numbers and symbols. Subcategories include Algebra, Analysis, Combinatorics, Graph Theory, Game Theory, Geometry and Topology, Number Theory, and Probability and Statistics.

Computational Science deals with the development and implementation of mathematical models and simulations to understand natural systems and processes, and solve STEM problems using computers. Subcategories include Computational Biology and Bioinformatics, Computational Chemistry, Computational Mechanics, and Theoretical, Computational and Quantum Physics.

### **Science Innovation Expo (Gawad AgLiTekno)**

A Technology Innovation competition which aims to recognize the most creative and market viable project addressing major issues in food safety, water conservation, renewable energy, cyber security, road safety, health, disaster mitigation, agriculture, and environment.

## UPDATED CHECKPOINTS FOR SRC REVIEW

### Checklist for SRC Review

This document was developed to provide guidance for an SRC to review a project after experimentation. **You may access the forms through the link - <https://www.societyforscience.org/isef/forms/>**

Type of Form	Who will fill out?	When to fill out?	When is it 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 is 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 involves 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*  *see note below for IRB	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, Research Participant	Before experimentation	Required if research involves human participant
Form 5A - Vertebrate Animal Form	Student Researcher/s, Scientific Review Committee,	Before experimentation	Required for all research involving vertebrate animals conducted in a

	Veterinarian, Designated Supervisor/Quali fied Scientist		school/home/field research site
Form 5B - Vertebrate Animal Form	Student Researcher/s, Qualified Scientist	Before experimentati on	Required for all research involving vertebrate animals in a regulated research institution
Form 6A - Potentially Hazardous Biological Agents Risk Assessment Form	Student Researcher, Qualified Scientist/Design ated Supervisor, Scientific Review Committee	Before experimentati on	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/Design ated Supervisor	Before experimentati on	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/Rese arch Progression Projects Form	Student Researcher	Before experimentati on	Required for projects that are a continuation/progression in the same field of study as previous project

**\*IRB – Institutional Review Board**

An Institutional Review Board (IRB) is a committee that must evaluate the potential physical or psychological risk of **research involving human subjects**. All proposed human research must be approved prior to experimentation. **This includes any surveys or questionnaires to be used in a project.** An IRB must consist of at least three members: a science teacher, a school administrator, and a psychologist, psychiatrist, medical doctor, physician’s assistant, or registered nurse. The adult sponsor, parents, qualified scientist, or the designated supervisor overseeing a project must not serve on the IRB reviewing that project

## Forms Needed and Manuscript for Research Competition

The following are the forms and manuscripts to be submitted in all levels of the competition. The hard copy to be submitted during the Preliminary Day of the Fair should have earmarks and should be arranged accordingly to this list.

1. SRC Form (See Enclosure No.6)
  - Regional SRC FORM (Blank Form)
  - Division SRC FORM (Accomplished for by the SRC with signature)
  - School SRC FORM (Accomplished for by the SRC with signature)
2. **FORMS for all the projects**
  - A. Checklist for Adult Sponsors
  - B. Student Checklist (1A)
  - C. Research Plan (NOTE: No need to attach the Research Plan Instruction) –  
**Note: Please make sure that the methods in the research plan are in the FUTURE tense.** If there are modifications from the research plan to the actual plan, please attach the modifications done.
  - D. Approval Form (1B)
3. FORMS depending on the type of research (e.g. involving human, vertebrae animals, hazardous chemicals, etc.) – **Check the applicability of each form. If the form is not needed in the research, do not attach it anymore.**
  - A. Regulated Research Institutional/ Industrial Setting Form (1C)
  - B. Qualified Scientist Form (2)
  - C. Risk Assessment Form (3)
  - D. Human Participants Form (4)
  - E. Human Informed Consent Form
  - F. Vertebrae Animal Form (5A)
  - G. Vertebrae Animal Form (5B)
  - H. Potentially hazardous Biological Agents Risk Assessment Form (6A)
  - I. Human and Vertebrae Animal Tissue Form (6B)
  - J. Continuation Project Form (7)
4. Abstract (Maximum of 250 words)
  - The abstract should include the following:
    - A. Purpose of the experiment
    - B. Procedure
    - C. Data
    - D. Conclusion
  - The abstract may NOT include the following:
    - A. Acknowledgement
    - B. Work of procedures done by the mentor.
5. Research Paper (Include the Title Page, Abstract, Main Body, and References) – **See Enclosure 9 for the Style book to be used by the NCR RSTF)**
6. Project Evaluation Form (see Enclosure No.7)
  - Project Evaluation Form Regional Level (Blank Form)
  - Project Evaluation Form Division Level (accomplished with signature of the judges)
  - Project Evaluation Form School Level (accomplished with signature of the judges)
7. Copy of Logbook
8. Copy of Plagiarism Scan Report

### **For Innovation Projects (SIE-I and T)**

The following forms are required:

- a. Innovation Paper
- b. Innovation Expo Screening Form
- c. Innovation Expo Judges Form
- d. Plagiarism Scan Report
- e. Logbook
- f. Simple Patent Search Report

### **1.5 The Research Projects**

Science research projects must conform to international rules and standards published by the Society for Science and the Public, the International Rules for Pre-college Science Research: Guidelines for Science and Engineering Fair 2023. Each project is expected to have a Research Adviser and an Institutional Review Board (IRB) or a Scientific Review Committee (SRC).

**The research project should cover a maximum of twelve (12) continuous months from January 2024 to December 2024.**

**Ethics Statement.** Scientific fraud and misconduct are not condoned 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.

### **1.6 Display and Safety Regulations**

The project display using photo paper summarizes the research project and must focus on the proponent's work for this year's study, and if applicable, with only minimal reference to previous research. **The size of the project size display board is 3 ft x 5 ft. Each entry should have their own tarpaulin stand.**

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

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

#### **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 photographs, visual image, chart, table and/or graph is allowed if:

1. It is not deemed offensive or inappropriate (which included 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.

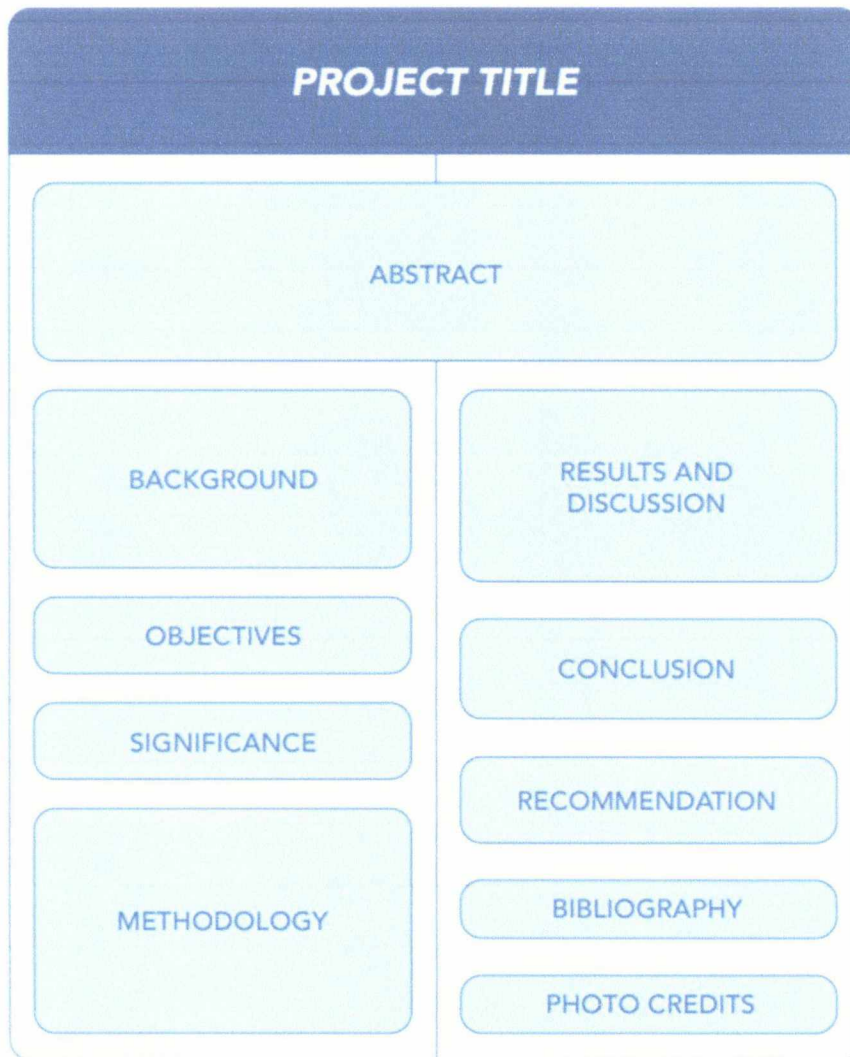
5. It is a photograph or visual depiction for which a signed consent form is at the project.
6. Images used as backgrounds must also be credited.

**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 acknowledgements (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.

**Items NOT Allowed at the Project 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
9. All hazardous substances or devices (i.e.: poisons, drugs, firearms, weapons, ammunition, reloading devices, lasers, etc.)
10. Dry ice or other sublimating solids Sharp items (i.e.: syringes, needles, pipettes, knives,
11. Flames or highly flammable materials
12. Batteries with open-top cells
13. Glass or glass objects unless deemed by the Display & Safety Committee to be an integral and necessary part of the project
14. Lasers or laser pointers Any apparatus deemed unsafe by the Scientific Review Committee, the Display & Safety Committee of the Fair



**Requirements for presentation by the Project Proponent/s to the BOJ during the exhibit are the following:**

- Copy of the required forms
- Copy of the research write-up
- Project data book or student journal complete with dates of entry, number of pages, and all other details

Innovation Expo Board Display:

<b>Title</b>	Create a clear and attention-grabbing title that accurately reflects your innovation.
<b>Introduction</b>	Provide a brief introduction to your innovation, highlighting its purpose and significance.
<b>Problem Statement</b>	Clearly state the problem or challenge that your innovation addresses.
<b>Solution/ Innovation</b>	Describe your innovative solution concisely and prominently on the poster.
<b>Features and Specifications</b>	Present the key features and specifications of your innovation using bullet points or visuals.
<b>Materials and Methods</b>	Use simple visuals or graphics to illustrate the materials used and the steps in the development process.
<b>Results and Discussion</b>	Showcase the results of your innovation and compare them to expectations or existing solutions. Use graphs, charts, or infographics to present data effectively.
<b>Benefits</b>	Emphasize the potential benefits of your innovation to the target users or the community.
<b>Visuals</b>	Include images, diagrams, and photographs to enhance the visual appeal and understanding of your innovation.
<b>Conclusions</b>	Summarize the main conclusions and the broader implications of your innovation.
<b>Future Development</b>	Discuss potential future developments or applications of your innovation.
<b>Developers' Name</b>	Indicate the name/s of the proponent/s (Do not indicate the name of the school/region)

**1.7 The Regional Level**

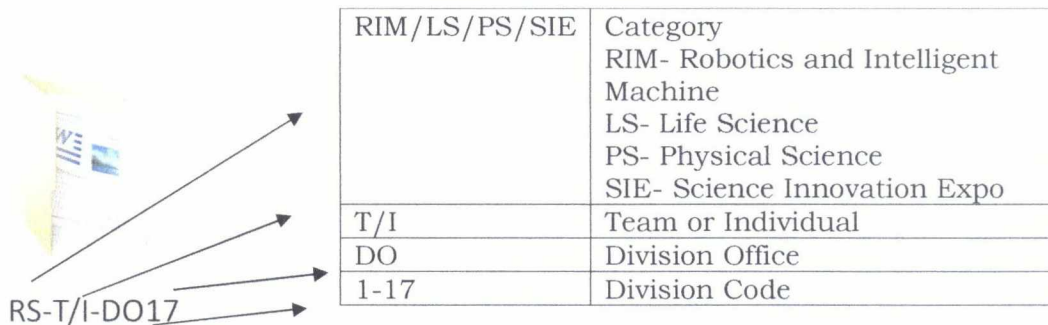
Projects of proponent should have been screened by the Institutional Review Board (IRB)/ SRC at the school level. All **school level winners** must be certified by the **division SRC** to join in the division-level fair. **With the exception of Regional**

**Science High Schools**, students of both **regular and science high schools of private and public high schools** shall participate in the division-level STF.

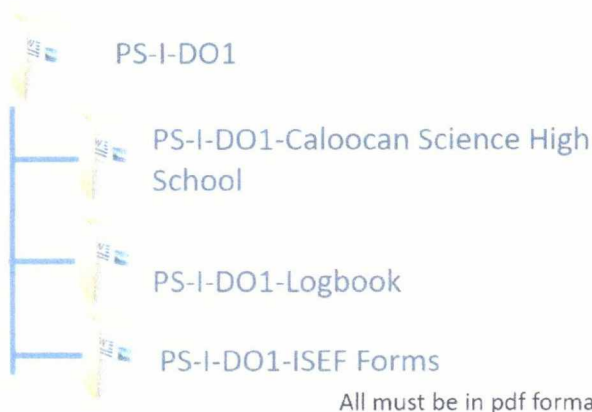
Winners at the school level should be officially endorsed to the division office for the division-level. Likewise, the division-level winners should be officially endorsed to the regional office. **The official list of the first-place winners at the division level shall be officially endorsed by the Division Office to DepEd NCR through the CLMD on October 18, 2024.**

The first-place winners at the division level in both clusters shall be properly scrutinized by identified members of the SRC for the regional level competition.

Example:



Division Code	Division	Division Code	Division
1	Caloocan City	9	Navotas City
2	Las Pinas City	10	Paranaque City
3	Makati City	11	Pasay City
4	Malabon City	12	Pasig City
5	Mandaluyong City	13	Quezon City
6	Manila City	14	San Juan City
7	Marikina City	15	Taguig City and Pateros
8	Muntinlupa City	16	Valenzuela City
		17	Regional Science HS Quezon City Science HS



All must be in pdf format

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

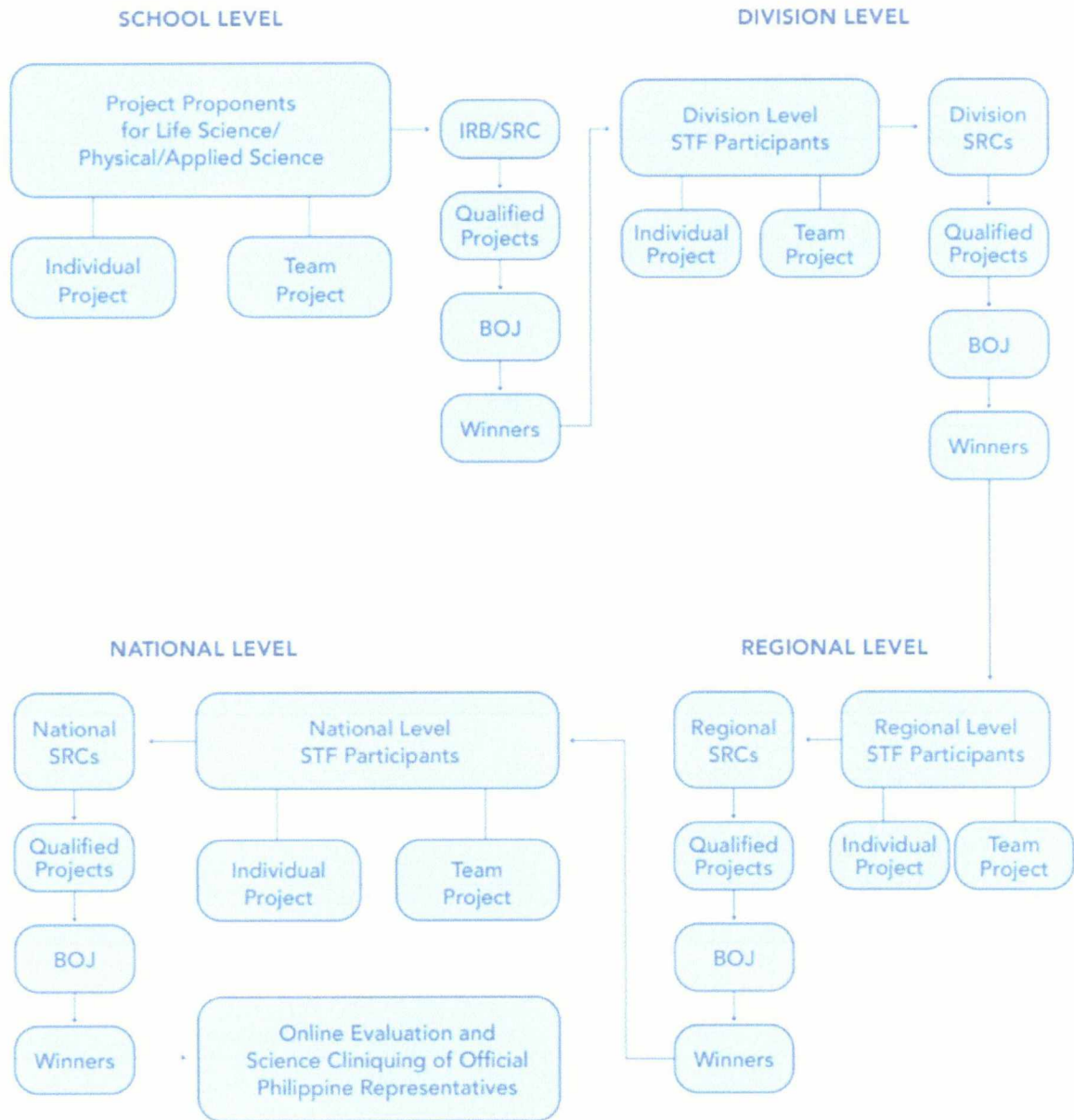
## 1.8 Awards and Recognition

A. Special Awards	Descriptions
<ul style="list-style-type: none"> <li>Best Shout Out</li> </ul>	Best shout out should portray creativity, clarity of the hash tags or message, coherency of the music or lyrics to the message or actions and organization as shown from the submitted <b>30-second</b> video and actual presentation.
<ul style="list-style-type: none"> <li>Best Poster</li> </ul>	Poster will be evaluated based on the content (identity of the division through culture, practices or landmark), creativity, design presentation, originality and relevance to the theme.
<ul style="list-style-type: none"> <li>Best Presenter</li> </ul>	Best presenter should have a clear audible speaking voice, research focus, has an in depth understanding of the research topic and high scientific reasoning and stage presence
<ul style="list-style-type: none"> <li>Best Display Board</li> </ul>	Best display boards will be evaluated based on the design, layout, dimension and content as set in the

	standard for the display board, organization and clarity
<ul style="list-style-type: none"> <li>• People's Choice</li> </ul>	The top three study/ group with the highest number of votes from the viewing public
<ul style="list-style-type: none"> <li>• Bida Lourdes Special Award</li> </ul>	This award will be chosen by Lourdes hospital based on their criteria in relation to health science.
B. Best Projects	
<ul style="list-style-type: none"> <li>• Top 5 Best Projects for each category will be awarded</li> </ul>	The five best projects: First (Gold), Second (Silver), Third (Bronze), Fourth and Fifth (Certificate) for each category
<ul style="list-style-type: none"> <li>• The First-Place winner/s will represent the region in the NSTF in each category if approved by the National SRC</li> </ul>	<ul style="list-style-type: none"> <li>• Life Science (IND)</li> <li>• Life Science (TEAM)</li> <li>• Physical Science (IND)</li> <li>• Physical Science (TEAM)</li> <li>• Robotics (IND)</li> <li>• Robotics (Team)</li> <li>• Mathematics and Computational Science (Individual and Team)</li> <li>• Science Innovation Expo (Individual and Team)</li> </ul>

Furthermore, the results of the deliberation of the Regional SRCs and the Regional Board of Judges will be **final and irrevocable**.

**Enclosure No. 2 Schematic Diagram and Flow of Activities**



**Who can serve as the Scientific Review Committee?**

An SRC must consist of a **minimum of three individuals** with **at least 3 years of extensive experience and expertise in STEM research project** and/or **graduate degrees in STEM related disciplines**, whereas it is recommended to diversify the expertise of the committee (e.g., Life Science research SRC: agronomist, STEM professor/educator, biomedical scientist).

The BOJ (Board of Judges) may serve as SRC and vice versa.

### **Tasks of SRC**

- Checks and evaluates student research project, certifications, research plan, documentation, evidence of proper supervision, and project display in compliance with NSTF and ISEF rules, applicable laws and regulations at each level of the STEM fair competitions.
- Examines research projects for the following:
  - a. Evidence of literary research
  - b. Evidence of proper supervision
  - c. Consistency of completion of the required information, signatures and dates in the ISEF forms and data logbook
  - d. Use of accepted and appropriate research methodologies
  - e. Evidence of risk assessment and appropriate literatures search and attribution
  - f. Search for alternatives to animal use
  - g. Humane treatment of animals
  - h. Documentation of substantial expansion for continuation projects
  - i. Compliance with ISEF ethics statement

**To avoid conflict of interest, no adult sponsor, parent or other relative of the student, qualified scientist, or designated supervisor who oversees the project, may serve on the SRC or IRB reviewing the STEM research projects.**

### **GENERAL PROCEDURES AND GUIDELINES IN CONDUCTING SCHOOL LEVEL SCIENCE AND TECHNOLOGY FAIR**

Before:

1. Orientation of learners regarding the processes and guidelines in planning and conducting STEM investigations.
2. Identification of the school level Scientific Review Committee (SRC) which will evaluate project proposals, required forms, certifications/ pre-approvals, data logbooks, and research manuscripts. Orientation of SRC members regarding the national laws, safety and ethical considerations, and the rules and regulations set by NSTF and ISEF needed to be adhered in conducting STEM research project
3. Writing of the research proposal and completion of the data logbook entries for the planning of the project.
4. Identification of the research category that best describes the project and presentation of research proposals for further revision and approval.
5. Orientation and agreements with parents/ guardians on the responsibilities of learners and supervisory adults in the specific arrangements during the research activity engagement.

6. Communication with the preselected qualified scientist/designated supervisor and Regulated Research Institution (RRI). Submission of Memorandum of Agreement/ Understanding and other documentary requirements (if applicable) to the research institution prior to experimentation.
7. Completion of the required ISEF forms and certifications/pre-approvals before experimentation
8. Conduct of the research and completion of required ISEF forms and data logbook entries for the accomplished research activities.
9. Writing of research manuscript and preparation for project display and oral defense.
10. Issuance of school memorandum regarding the conduct of SSTF which includes the mechanics, guidelines, criteria, schedule of activities, and TWG anchored on the Division, Region and National Science and Technology Fair Memorandum.
11. Signing of non-disclosure agreements with the adult sponsor, SRC and TWG members (**see Enclosure 10**).
12. Submission of three (3) hard and digital copies of properly color-coded and sequenced (as indicated in the memorandum) manuscripts, ISEF forms, data logbook, and other entry requirements (student media release forms, project evaluation forms, medical certificate, etc.) to the TWG on or before the deadline.
13. Forwarding of submitted manuscripts to the SRC/ Board of Judges (BOJ) for project pre-evaluation guided by the attached criteria.
14. Issuance of school memorandum regarding the results of the SRC review and the list of qualifiers for the SSTF and final judging.
15. Returning of the qualified SSTF manuscripts and other entry requirements for further revisions based on the listed comments and suggestions by the SRC in the Review and Recommendation Report (RRR).
16. Final meeting of the TWG for the preparations needed for the conduct of the SSTF.
17. Online resubmission of the digital copies of manuscripts, other entry requirements and PowerPoint presentation for the STEM Congress to SSTF focal person.

**During:**

1. Registration of participants and submission of the three (3) hard copies of color-coded manuscripts with tags to identify the revisions done based in the RRR.
2. It is also suggested for the student researchers to be in their smart casual during the conduct of SSTF.

3. Set-up for the project display that conforms with the display and safety regulations.
4. Project Display inspection by the assigned TWGs to ensure adherence to the prescribed project display rules and guidelines
5. Conduct of the SSTF opening program and on-site judging of the entries.
6. SRC/BOJ final evaluation of the qualified research entries through the STEM Congress.
7. Deliberation of the SRC/BOJ and awarding of the Top 5 winners for the individual and team projects in each research category. Other special awards (e.g., Best Poster, Best Presenter/s, Peers' Choice Award, Best Shoutout) and sponsored honorable awards by institutions/organizations may also be given to learners and advisors.
8. Orientation of the student researchers and advisors of the Top 3 entries for the individual and team projects in each research category for further comments, suggestions and other preparations needed as school representatives to the Division Science and Technology Fair (DSTF).

After:

1. Issuance of school memorandum regarding the winners of the SSTF.
2. Final revision of the manuscripts and other entry requirements incorporating the recommendations by the SRC/BOJ.
3. Re-submission of the revised manuscripts and other entry requirements to the school SRC for final quality assurance.
4. Submission of the Entries (as agreed upon by your division) to the Division Level Science Fair Technical Working Group.
5. Conduct of STEM cliniquing to improve learners' presentation skills and preparation of Poster Displays

### **GENERAL PROCEDURES AND GUIDELINES IN CONDUCTING DIVISION LEVEL SCIENCE AND TECHNOLOGY FAIR**

Before:

1. Planning and consultation meeting spearheaded by the Division Education Program Supervisors in Science and Math with the school heads, and science and mathematics department heads, coordinators/focal persons, and TWG.
2. Issuance of the division memorandum on the conduct of the DSTF aligned with the Regional and National Memorandum.

3. Identification of the division level SRC based on the criteria set by NSTF and ISEF. The division level SRC will evaluate the research manuscripts, required forms, certifications/pre-approvals, and data logbooks of the school entries to the DSTF
4. Orientation of SRC members regarding the national laws, safety, and ethical considerations, and the rules and regulations set by NSTF and ISEF that needs to be adhered to when conducting STEM investigations.
5. Signing of non-disclosure agreements with the SRC and TWG members.
6. Submission of the three (3) hard and digital copies of research manuscripts and other entry requirements of the Top 3 entries for the individual and team projects in each research category to the DSTF focal person with attached report of the conduct of SSTF and endorsement by the school head on or before deadline.
7. Forwarding of submitted manuscripts to the SRC/ BOJ for project pre-evaluation guided with the attached criteria and RRR.
8. Issuance of division memorandum regarding the results of the SRC review and the list of qualifiers for the DSTF and final judging.
9. Meeting with the learners and advisors of the unqualified projects for the discussion of the disapproval/disqualification issues and their rights for an appeal period of three (3) days. An appeal can be requested by the student researcher and advisor through the submission of a letter for reconsideration addressed to the SRC chairman explicitly stating the valid explanations to reconsider the disqualification of the entry
10. Returning of the qualified DSTF manuscripts and other entry requirements for further revisions based on the listed comments and suggestions by the SRC in the RRR.
11. Final meeting of the TWG for the preparations needed for the conduct of the DSTF.
12. Preparation of the 1-minute video presentation for the school shoutout.
13. Online resubmission of the digital copies of manuscripts, other entry requirements and PowerPoint presentation for the STEM congress to DSTF focal person with official endorsement by the school head to the division office.
14. Online pre-registration of participants (optional).

During:

1. Registration of participants and submission of the three (3) hard copies of color-coded manuscripts with tags to identify the revisions done based on the RRR.

2. It is also suggested for the student researchers to be in their formal attire during the conduct of DSTF.
3. Inspection of the Project display, whereas the TWG may require learners to make revisions in the display boards in order to adhere to the prescribed rules and regulations.
4. Conduct of the DSTF opening program and on-site judging of the entries
5. SRC/BOJ final evaluation of the qualified research entries through the STEM congress.
6. Deliberation of the SRC/BOJ and awarding of the Top 5 winners for the individual and team projects in each research category. Other special awards (e.g., Best Poster, Best Presenter/s, People's Choice Award, Peers' Choice Award, Best Shoutout) and sponsored honorable awards by institutions/organizations may also be given to learners and advisors.
7. Orientation of the student researchers and advisors of the **Top entries** or the individual and team projects in each research category for further comments, suggestions and other preparations needed as division representatives to the Regional Science and Technology Fair (RSTF).

After:

1. Issuance of division memorandum regarding the winners of the DSTF and the schedule of cliniquing/mentoring/coaching of the regional representatives to the RSTF pre-evaluation of research projects.
2. Final revision of the manuscripts and other entry requirements by incorporating the recommendations of the SRC/BOJ.
3. Improving learners' presentation skills through the conduct of mock STEM Congress.
4. Re-submission of the revised manuscripts and other entry requirements to the division SRC for the final quality assurance.

**Enclosure No. 3 Timelines of Activities and Requirements**

DATE	ACTIVITIES	PERSONS INVOLVED
October 18, 2024 <b>(Friday)</b>	Submission of the:  Indorsement of the List of Division Winners duly signed by the SDS  Soft copy of the entries to be sent in a OneDrive link to be sent in the <i>NCR Science Supervisors Group</i>  Online Registration for Division Delegation to RSTF 2024	Division Science and Math Supervisors/ Coordinators  Research Advisers
October 20, 2024 <b>(Sunday)</b>	Regional Scientific Review Committee Orientation and Review at the CLMD Office	Screening Committee and Judges
October 21 – 25, 2024	Giving of the comments from the SRC to the concerned SDOs	SUPERVISORS/ Coordinator Officers of the Regional Research Advisers Association RESEARCH ADVISERS
October 30, 2024	Report of the Conduct of Division Science and Technology Fair ( <b>see the format in Enclosure 5</b> )  Soft copy (Excel Form) of the Data of SIPs submitted during the Division Science and Technology Fair ( <b>see the format in Enclosure 5</b> ) send it to <i>NCR Science Supervisors Group</i>	
November 4, 2024	Ocular Inspection Final Meeting at Quezon City Science High School	SCIENCE SUPERVISORS Officers of the Regional Research Advisers Association

<p>November 6, 2024 <b>Day 0</b></p>	<p>Getting Ready Setting Up for the Fair</p> <ul style="list-style-type: none"> <li>• <i>Submission of <b>Three Hard Copies</b> incorporating the revisions from the SRC</i></li> <li>• <i>Submission of Learner Release Form (Enclosure 11)</i></li> <li>• <i>Quality assurance of projects</i></li> <li>• <i>Submission of division shout out video</i></li> <li>• <i>Submission of Project Slide Decks (in PPT format only)</i></li> <li>• <i>Making science fair poster</i></li> <li>• <i>Setting-up and Quality Assurance of the Project Display Board</i></li> </ul> <p>Note: Submission is <b>from 8:00 Am to 12:00 PM ONLY</b> <b>1PM Briefing for all participants</b></p> <p><b>Venue: Quezon City Science HS</b></p>	<p>Science Supervisors Officers of the Regional Research Advisers Regional Science Club Officers Research Advisers HOST DIVISION</p>
<p>November 7, 2024 <b>Day 1</b></p>	<p><i>Opening of the RSTF 2024</i></p> <p><i>Judging of Projects</i></p> <ul style="list-style-type: none"> <li>• <b><i>On-site interview in the Morning with Open House</i></b></li> <li>• <b><i>Oral defense in the Afternoon until 5:00 PM only.</i></b> <ul style="list-style-type: none"> <li>• <i>Audience during the presentation is allowed but with rules to be followed and maximum number of audience will be determined</i></li> <li>• <i>There should be a documenter, time keeper, emcee and crowd controller in each defense area</i></li> <li>• <i>All documents must be submitted to the secretariat</i></li> </ul> </li> <li>• <b><i>Research Advisers Academy for Research</i></b></li> </ul>	<p>Science Supervisors Officers of the Regional Research Advisers Research Advisers HOST DIVISION</p>

	<p style="text-align: center;"><b><i>Advisers while the Oral Defense is ongoing</i></b></p> <p><b>Evening</b> – Judges Deliberation (in-house)</p> <p><b>Venue: Quezon City Science HS</b></p>	
November 8, 2024 <b>Day 2</b>	<p><b>AM</b></p> <ul style="list-style-type: none"> <li>• <i>Research Advisers Academy for Research Advisers</i></li> <li>• <i>Open House and Student Mixer for Students</i></li> </ul> <p><b>PM</b></p> <p><i>Closing Program and Awarding</i></p> <p><b>Venue: Quezon City Science HS</b></p>	Science Supervisors Officers of the Regional Research Advisers Research Advisers HOST DIVISION
November 2024	<p>Regional Critiquing and Mentoring of the Regional Winners</p> <p><b>Venue and Date TBA</b></p>	Science and Math Supervisors Research Advisers Science Supervisors Judges
December 13, 2024	<p>Submission of Final research output to DepEd CO</p>	Science and Math Supervisors Research Advisers Science Supervisors

Enclosure No.4 **WORKING COMMITTEES**

- Focal Person: Micah G. Pacheco and Restituto Rodelas
- CLMD TWG

<b>Working Committees</b>	Science Supervisors/ Coordinators In-Charge to be assisted by Regional Research Advisers Association Officers and Regional Secondary Science Club Advisers Association Officers
Accommodation/ Program/ Food/ Invitation/ Documentation	HOST DIVISION
Registration	HOST DIVISION
Awards (Certificates, Medals, Trophies & Trophies)	HOST DIVISION
Display	Dr. Manolo Davantes SDO- Malabon and the Display Board Team
Poster Making Contest	Science Supervisors Regional Research Advisers Association Officers
Shout Out	Science Supervisors Regional Research Advisers Association Officers
Viewing	Dr. Armida Oblinada SDO Muntinlupa
In-Charge of Different Contest Category <ul style="list-style-type: none"> <li>• Life Science (Individual)</li> <li>• Life Science (Team)</li> <li>• Physical Science (Individual)</li> </ul>	<ul style="list-style-type: none"> <li>Dr. Bradley Loo SDO San Juan</li> <li>Dr. Emiterio Maccarrubo SDO Caloocan Regional Research Advisers Association Officer</li> <li>Dr. Maria Pilar Capalongan SDO Quezon City</li> <li>Dr. Lea Q. Prondo SDO Valenzuela Regional Research Advisers Association Officer</li> <li>Dr. Lisa Alvarez SDO Pasig SDO Las Piñas</li> </ul>

	Regional Research Advisers Association Officer
<ul style="list-style-type: none"> <li>Physical Science (Team)</li> </ul>	Dr. Corazon Javier SDO Paranaque Dr. Marie Gerlie Capiral SDO Manila Regional Research Advisers Association Officer
<ul style="list-style-type: none"> <li>Robotics (Individual)</li> </ul>	Dr. Marivic Almo SDO TaPat Dr. Maripaz Mendoza SDO Pasay Regional Research Advisers Association Officer
<ul style="list-style-type: none"> <li>Robotics (Team)</li> </ul>	Ms. Roxane Villanueva SDO Mandaluyong Ms. Jessica Mateo SDO Marikina Regional Research Advisers Association Officer
Mathematics and Computational Science (Individual and Team)	Dr. Restituto Rodelas Dr. Michael Lee Dr. Alberto Tiangco
<ul style="list-style-type: none"> <li>Science Innovations Expo Individual</li> </ul>	Mrs. Jocelyn Agulto SDO Navotas
<ul style="list-style-type: none"> <li>Science Innovation Expo Team</li> </ul>	Mr. Hernan Apurada SDO Makati

**Regional Research Advisers Association Members Core Team**

Don King O. Evangelista, President - SDO Navotas

Earl Francis Merilles, Vice – President - SDO Quezon City

Ayra Patricia Alvero, Secretary - SDO Las Pinas

Diana Lou Sipalay, Treasurer - SDO Caloocan

Janeth Mamansag, Auditor - SDO Taguig Pateros

Enclosure No.5

### **FORMAT OF THE REPORT AND DATA SUBMISSION**

The Division Science Supervisors/Coordinators are requested to submit to Curriculum and Learning Management Division (CLMD) the reports of the conduct of Division Science and Technology Fair on or before October 30, 2024.

The Report of the **Conduct of the Division Science and Technology Fair** shall include the following:

1. Title
2. Table of Contents
3. Introduction/Rationale
4. Detailed Information
  - General information
  - 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

#### Format for **End of Activity Report**

The End of Activity Report for the Regional/Division/School Science and Technology Fair should contain the following sections:

1. Title Page: Include the name of the region/division and a clear, concise title for the report.
2. Table of Contents: List all the sections of the report and their corresponding page numbers to help readers navigate the document.
3. General Information: Provide a broad overview of the fair, including its purpose, goals, and objectives, as well as information on its structure, participants, and timeline.
4. Results: Present the results of the fair, including statistics and data related to the number of entries, participants, and winners, as well as any trends or patterns observed.
5. List of Activities Conducted: Provide a detailed list of the activities conducted during the fair, including dates, locations, and participants.
6. List of Entries: Provide a list of all entries submitted to the fair, including the title, author, and category.
7. List of Winners: List the winners of the fair, including the title, author, and category.
8. Financial Report: Provide a detailed financial report of the fair, including expenditures and income, as well as any funding sources.
9. Conclusions: Summarize the main findings and conclusions of the fair, and provide recommendations for future action.

10. Recommendations: Provide specific recommendations for future action, based on the findings of the fair, and identify areas for improvement.
11. Appendix: Include any additional materials, such as detailed data tables, charts, or other relevant documents, that support the findings of the report

**Data of all the Science Investigatory Projects (SIPs) entries during the Division Fair**

NOTE: This should be in an Excel spreadsheet and should be sent to NCR Science Supervisors Group on or October 30, 2024. Please take note of the example below:

Region: \_\_\_\_\_

Division: \_\_\_\_\_

No	First Name	Middle Name	Last Name	Grade	High School	Gender	Team / Individual	Team Code	Research Adviser
1	Diana Vel	L	Laguna	10	Bayugan Natl Composite HS, Bayugan City	F	Individual		Emmanuel T. Guzman
2	*Yessica Anne Kimbela	M	Quilala	10	CARAGA RSMHS, Surigao City	F	Team	1	Marly Ruth Estrada
3	*Dennis Javier	G	Pangasinan	10		F	Team	1	
4	*Viv Leon	F	Tulid	10		F	Team	1	
5	Bianca	A	Mulder	10	Bunawan NTH, Agusan del Sur; Bunawan NTH, Agusan del Sur; Bunawan NTH, Agusan del Sur	F	Team	2	Emmanuel Pagibanta
6	Eucharist Leah	O	Ibe	10		F	Team	2	
7	Elvenera Grace	A	Rodriguez	10		F	Team	2	
8	Boyan Lee	J	Sakana	9	Agusan del Sur NTH, Agusan del Sur	M	Individual		Emily S. Davao
9	Una	S	Agustin	10	Bayugan Natl Composite HS, Bayugan City	F	Team	3	Emmanuel T. Guzman
10	Rayson Rey	R	Vicente	10		M	Team	3	
11	Justo Ryan	S	Taguiman	10		M	Team	3	

This template is to be used in the official endorsement of the school to division, division to region, and region to national.

Region: \_\_\_\_\_ Division: \_\_\_\_\_

No.	First Name	Middle Name	Last Name	Grade Level	School Name	Gender	Team/ Individual	Category	Team Code	Research Adviser

Data	Total	Data	
Total No. of Female		Total No. of Robotics and Intelligent Machines Project Entries	
Total No. of Male		Total No. of Mathematics and Computer Sciences Project Entries	
Total No. of Participating Schools		Total No. of Grade 7 Student Participants	
Total No. of Participating Private Schools		Total No. of Grade 8 Student Participants	
Total No. of Participating SP STEM Schools		Total No. of Grade 9 Student Participants	
Total No. of Participating SP STEM Male Student		Total No. of Grade 10 Student Participants	
Total No. of Participating SP STEM Female Student		Total No. of Grade 11 Student Participants	
Total No. of Individual Project Entries		Total No. of Grade 12 Student Participants	
Total No. of Team Project Entries		Total No. of Mathematics and Computer Sciences Project Entries	
Total No. of Life Sciences Project Entries		Total No. of Participating Teachers	
Total No. of Physical Sciences Project Entries			

Prepared by: \_\_\_\_\_  
 Mobile No: \_\_\_\_\_  
 School/Office Address: \_\_\_\_\_  
 Regional Coordinator: \_\_\_\_\_

## Scientific Review Committee Review & Recommendation Report

**PLEASE CHECK:**  
 REGIONAL SCIENCE AND TECHNOLOGY FAIR  
 2024  
 DIVISION SCIENCE AND TECHNOLOGY FAIR  
 2024  
 SCHOOL SCIENCE AND TECHNOLOGY FAIR  
 2024

Project Title: \_\_\_\_\_

Fair Division:  Life  Applied/Physical  Robotics and Intelligent Machine  Math and Computational Sciences  
 Category:  Individual  Team

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

<b>PART 1: REQUIRED FORMS FOR ALL RESEARCHES</b>	<b>Complete</b>	<b>Incomplete</b>	<b>Recommendations</b>
1. Checklist for Adult Sponsor (1). Is it accomplished and signed?			
2. Student Checklist 1A. Is it accomplished and signed			
If answer to item 5 is YES, must also have Form 7 (See Part II, item 13 below)			
If answer to item 7 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 brief synopsis of background that supports the research problem and explains why the research is important scientifically?			

<p>If applicable, does it explain the societal impact of the research?</p>			
<p>B. HYPOTHESIS (ES), RESEARCH QUESTION(S), ENGINEERING GOAL(S), EXPECTED OUTCOMES. Is this based on RATIONALE?</p>			
<p>C. RESEARCH METHODS AND CONCLUSIONS</p>			
<p>a. Procedures.</p> <p>i. Does it show all procedures and experimental designs, including methods for data collection?</p> <p>ii. There should be NO inclusion of work of mentor or others. Parameters should NOT be too strict to allow for possible changes</p>			
<p>b. Risk and Safety. Does it identify all potential risks and safety precautions needed?</p>			
<p>c. Data Analysis.</p> <p>i. Does it describe all procedures for data analysis?</p> <p>ii. Parameters should NOT be too strict to</p>			

<p>allow for possible changes</p>			
<p>D. BIBLIOGRAPHY. Does it have at least 5 major references? If using vertebrate animals, include 1 reference on animal care?(Chicago Manual Style)</p>			
<p>Note: Items 3.E-H are needed ONLY for researches on HUMAN PARTICIPANTS, VERTEBRATE ANIMAL, POTENTIALLY HAZARDOUS BIOLOGICAL AGENTS (see attached Research Plan/Project Summary Instructions)</p>			
<p>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</p>			
<p>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</p>			

f. Disposition of animals at study termination			
G. POTENTIALLY HAZARDOUS BIOLOGICAL AGENTS RESEARCH. Does it provide for the following? a. Biosafety Level Assessment & BSL determination b. Source of agent, specific cell line. c. Safety precautions d. Methods of disposal			
H. HAZARDOUS CHEMICALS, ACTIVITIES & DEVICES. Does it provide for the following? a. Risk Assessment process & results b. Chemical concentrations and drug dosages c. Safety precautions and procedures to minimize risks d. Methods of disposal			
4. Approval Form 1B (for ALL students)			
5. Abstract			
<b>VERY IMPORTANT 2: See Part II, Risk Assessment (3) for</b> 1. Studies involving protists, archaea and similar microorganisms. 2. Research using manure for composting, fuel production, or other non-culturing experiments. 3. Commercially-available color change coliform water test kits. These kits must remain sealed and must be properly disposed. 4. Studies involving decomposition of vertebrate organisms (such as in forensic projects).			

5. Studies with microbial fuel cells.

<b>PART 2: ADDITIONAL REQUIRED FORMS</b>	<b>Complete</b>	<b>Incomplete</b>	<b>Recommendations</b>
<p>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?</p>			
<p>7. Qualified Scientist Form (2) – for researches with human participants, vertebrate animals, potentially hazardous biological agents, DEA-controlled substances; completed and signed BEFORE start of experimentation. Is it properly accomplished and signed by the QUALIFIED SCIENTIST?</p>			
<p>8. Risk Assessment Form (3) – for researches using hazardous chemicals, activities or devices and microorganisms exempt from pre-approval. Must be completed BEFORE</p>			

<p>experimentation. Is it properly accomplished and signed by DESIGNATED SUPERVISING ADULT OR QUALIFIED SCIENTIST (when applicable)?</p>			
<p>9. Human Participants Form (4)          – for researches involving human participants not at a Regulated Research Institution. Did the the DESIGNATED ADULT SUPERVISOR/INSTITUTION approve the research BEFORE experimentation?</p>			
<p>10. Vertebrate Animal Form (5A) – for researches 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</p>			

<p>applicable) BEFORE experimentation?</p>			
<p>11. Vertebrate Animal Form (5B) – for researches 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?</p>			
<p>12. Potentially Hazardous Biological Agents Risk Assessment Form (6A) – for researches 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/IBC approval BEFORE experimentation?  B. Is it properly accomplished, approved and signed by a QUALIFIED or DESIGNATED</p>			

<p>SUPERVISOR BEFORE experimentation?</p> <p>C. Is it properly accomplished, approved and signed by the SRC BEFORE experimentation?</p> <p>D. Human Vertebrate Animal Tissue Form (6B) – for researches 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 researches 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?</p>			
<p>13. Continuation/Research Progression Projects Form (7) – for researches that are a continuation/progression in the same field of study as a previous research.</p>			

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?			
<b>VERY IMPORTANT: There should be NONE of the following:</b>			
a. Acknowledgements of the research institutions and/or mentors with which the student were working			
b. Self-promotions and external endorsements			
c. Inclusion of work or procedures done by the mentor			
<b>PART 5: RESEARCH LOGBOOK</b>			
1. Is the logbook intact and not tampered with? It should NOT be loose-leaved.			
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?			
	<b>Complete</b>	<b>Incomplete</b>	<b>Recommendations</b>

<p>SHOW the reader what the research came up with? This should be the MAIN section of the paper.</p>			
<p>5. DISCUSSION. Does this show what the findings in "RESULTS" mean?</p>			
<p>6. LIMITATIONS ON THE RESEARCH DESIGN AND MATERIAL. Does this show knowledge and understanding of research limitations?</p>			
<p>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?</p>			
<p><b>PART 4: RESEARCH ABSTRACT (MAX. 250 WORDS)</b></p>	<p><b>Complete</b></p>	<p><b>Incomplete</b></p>	<p><b>Recommendations</b></p>
<p>1. Does it clearly and concisely state the PURPOSE OF THE RESEARCH?</p>			
<p>2. Does it clearly and concisely state the PROCEDURE/S</p>			

<p>A. This form <b>MUST</b> be accompanied by the <b>PREVIOUS YEAR'S ABSTRACT</b> and <b>RESEARCH PLAN</b></p> <p>B. Is it properly accomplished, approved and signed by the student/s?</p>			
<p><b>PART 3: RESEARCH PAPER</b> (See attached <b>IMRAD</b>)</p> <p>1. <b>COVER PAGE A.</b> Is the research title present? <b>B.</b> Is/Are the name/s of the student proponent's present? <b>C.</b> Is/Are the appropriate persons credited? (The Research adviser and Research Consultants, if applicable <b>MUST</b> be present)</p>	<b>Complete</b>	<b>Incomplete</b>	<b>Recommendations</b>
<p>2. <b>INTRODUCTION.</b> Does it outline the research question and its significance within the topic discussed, making its relevance clear to readers in a <b>CONCISE</b> manner?</p>			
<p>3. <b>METHOD.</b> Does is clearly and comprehensively provide the reader with a description of the methods used in the research?</p>			
<p>4. <b>RESULTS.</b> Does is clearly and comprehensively</p>			

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?			
<input type="checkbox"/> Review Complete <input type="checkbox"/> Review Incomplete			

Decision:

\_\_\_\_\_  
 NAME and SIGNATURE  
 SRC

\_\_\_\_\_  
 NAME and SIGNATURE  
 SRC

\_\_\_\_\_  
 NAME and SIGNATURE  
 SRC

**Board of Judges (BOJ)**

**PROJECT EVALUATION FORM**

---

**PLEASE CHECK:**

**REGIONAL SCIENCE AND TECHNOLOGY FAIR 2024**

**DIVISION SCIENCE AND TECHNOLOGY FAIR 2024**

**SCHOOL SCIENCE AND TECHNOLOGY FAIR 2024**

Title of Research Project : \_\_\_\_\_

School : \_\_\_\_\_

Project Category :  Life Science     Physical Science     Robotics  
 Mathematics and Computational Science  
 Team                                     Individual

Category	Score
<p><b>1. Creative Ability (30)</b></p> <p>A. Does the project show creative ability and originality in the:</p> <ul style="list-style-type: none"><li>a. research questions asked?</li><li>b. approach to solving the problem?</li><li>c. analysis of the data?</li><li>d. interpretation of the data?</li><li>e. use of equipment?</li><li>f. construction or design of new equipment?</li></ul> <p>B. Creative research should support an investigation and help a question in an original way.</p> <p>C. A creative contribution promotes an efficient and reliable method for solving a problem. When evaluating a project, it is important to distinguish between gadgettering and ingenuity.</p>	

**2. Scientific Thought (30)**

*(If an engineering project, please see 2b. 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 limitation?
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 newspaper, magazines)?

**B. 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 performance under the conditions of use?

**3. 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?

**4. 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 the adult supervision, or did the student/team work largely alone?
4. Where did the equipment come from? Was it built independently by the finalist/team? Was it obtained on loan? Was it part of a laboratory where the finalist/team worked?

<p><b>5. Clarity (10)</b></p> <ol style="list-style-type: none"> <li>1. How clearly does the finalist/team discuss his/her/their project and explain the purpose, procedure, and conclusion? Watch out for memorized speeches that reflects little understanding of principles.</li> <li>2. Does the written material reflect the finalist's or team's understanding of the research?</li> <li>3. Are the important phases of the project presented in an orderly manner?</li> <li>4. How clearly is the data presented?</li> <li>5. How clearly are the results presented?</li> <li>6. How well does the project display explain the project?</li> <li>7. Was the presentation done in a forthright manner, without tricks or gadgets?</li> <li>8. Did the finalist/team perform all the project work, or did someone help?</li> </ol>	
TOTAL	
Signature over printed name of the members of the board of judges	

**Enclosure 8: Innovation Expo Screening Form**

<b>TITLE OF THE PROJECT</b>		
<b>INDIVIDUAL/TEAM</b>		
<b>PROJECT PROPONENTS</b>		
<b>CRITERIA</b>	<b>WEIGHT</b>	<b>RATING</b>
<b>ORIGINALITY AND CREATIVITY</b> This criterion assesses the uniqueness and innovation of the project. It looks at how the research addresses a problem in a novel way or introduces creative solutions.	35%	
<b>COMMUNITY CONNECTION &amp; IMPACT</b> This criterion evaluates how the innovation research benefits the community or society. It assesses the project's potential to make a positive impact and address real-world issues.	25%	
<b>MARKET ATTRACTIVENESS</b> This criterion examines the commercial viability of the innovation. It considers the potential market demand, scalability, and sustainability of the project.	25%	
<b>UTILIZATION OF PATENT INFORMATION</b> This criterion focuses on how well the project utilizes relevant patent information and avoids infringement on existing patents.	15%	
<b>TOTAL</b>	<b>100%</b>	
<b>COMMENTS</b>		

\_\_\_\_\_  
Signature over Printed Name of Judge

**Enclosure 9: Innovation Expo Judges Form**

<b>TITLE OF THE PROJECT</b>		
<b>INDIVIDUAL/TEAM</b>		
<b>PROJECT PROPONENTS</b>		
<b>CRITERIA</b>	<b>WEIGHT</b>	<b>RATING</b>
<p><b>ORIGINALITY AND CREATIVITY</b>            This criterion assesses the uniqueness and innovation of the project. It looks at how the research addresses a problem in a novel way or introduces creative solutions.</p>	<b>25%</b>	
<p><b>COMMUNITY CONNECTION &amp; IMPACT</b>            This criterion evaluates how the innovation research benefits the community or society. It assesses the project's potential to make a positive impact and address real-world issues.</p>	<b>20%</b>	
<p><b>MARKET ATTRACTIVENESS</b>            This criterion examines the commercial viability of the innovation. It considers the potential market demand, scalability, and sustainability of the project.</p>	<b>15%</b>	
<p><b>FUNCTIONALITY AND TECHNOLOGY VALIDATION</b>            This criterion evaluates the practical functionality and performance of the innovation. It assesses how well the innovation functions in real-world scenarios and whether it meets the intended objectives. Researchers should demonstrate evidence of successful testing, validation, or prototypes to support the claims of the innovation's effectiveness.</p>	<b>25%</b>	

<p><b>PRESENTATION AND PRODUCT PRESENTATION</b>  This criterion looks at how effectively the innovation and research are presented to the audience. It assesses the clarity, coherence, and visual appeal of the poster display and any supplementary materials. Additionally, researchers' ability to communicate the innovation's key features, benefits, and impact in a compelling and engaging manner is considered. The criterion also considers how well the researchers answer questions and engage with expo attendees during their presentation</p>	<p><b>15%</b></p>	
<p><b>TOTAL</b></p>	<p><b>100%</b></p>	
<p><b>COMMENTS</b></p>		

\_\_\_\_\_  
Signature over Printed Name of Judge

## **Enclosure 9: NCR Research Science Investigatory Project Style Book**

The **NCR Research Science Investigatory Project (SIP) Style Book** is designed to establish a unified format for the submission of science research projects across schools and divisions within the National Capital Region (NCR). With the increasing need for consistency, clarity, and professionalism in research presentations, this style book serves as a comprehensive guide to standardize the structure, language, and formatting of science investigatory projects submitted to the region.

Research plays a pivotal role in the academic development of students, fostering critical thinking, creativity, and problem-solving skills. However, to ensure that the quality of scientific inquiry meets both national and international standards, it is essential that these projects adhere to a uniform framework. This standardization will allow for the effective evaluation and comparison of projects across divisions, while also enabling students to develop the necessary skills for higher-level research.

The guidelines outlined in this style book cover every aspect of research formatting, from the title page to the bibliography, including proper citation methods, and technical writing standards. By following this style book, students, advisers, and schools will ensure that their investigatory projects reflect the professionalism and rigor required in the scientific community, fostering a culture of excellence in research throughout NCR.

We encourage all stakeholders to utilize this resource to guide students in their research endeavors, ensuring that the research outputs submitted to the region are consistent, credible, and of the highest academic standard.

### **I. Parts of the Research Paper under TUKLAS<sup>1</sup>**

Science Fair is not a competition for the thickest research papers. Research papers are to be written in an **IMRaDC format** that is: (1) journal-ready and (2) concise or includes only the important details.

**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 brief 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.
- It must present the **(1) background of the study, (2) hypothesis and statement of the problem, (3) objectives, (4) significance and (5) limitations of the study** but not in subsections.

**METHODS** – What procedures were carried out for the experimentation?

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<sup>1</sup> Modified from NSTF Handbook version 2023 and Road to ISEF: Practical Guide in Local Science Fairs by Galang (2014)

- Explain in detail what you did. What data did you collect and how did you collect those data? Discuss your control group and the variables you tested.
- Discuss your control group, the variables you tested, and the statistical treatment used. Handling and disposal of wastes may be included if necessary.
- DO NOT include a list of materials.
- Subsections can be used (usually 1 short paragraph per subsection). It should provide enough details so that others can repeat the experiments following the methods written in the research paper; however, conciseness should be maintained.
- Official title of international/established procedures or tests used in the experiments can be written instead of describing its detailed steps (eg. Retting Process, Resazzurin Test, ASTM #); however, modifications for these international/established procedures or tests must be indicated
- Include photographs, lay-outs, schematic diagrams or drawings especially for inventions and new products.

### **RESULTS** - What were the result(s) of your project?

- Include tables and figures which illustrate your data.
- Include relevant statistical analysis of the data.
- It includes all data gathered from the experiments which can be presented through tables, graphs, figures, etc.
- Appropriate data presentation must be observed. (eg. table vs. graph, bar graph vs. line graph)
- Tables, graphs, figures, etc. should EACH have their respective captions. A good caption must have a Table/Graph/Figure Number and a short description.
- Captions for tables must be placed on top of the table. While those for figures, graphs, diagrams, etc should be placed under them.
- Each table, graph, figure, etc may be accompanied with short descriptions on the trends derived from data analysis conducted
- Subsections may be used especially if multiple distinct tests were conducted (eg. Results from Test No. 1, Results from Test No.2)
- This part of the research paper may begin with: *This study determined the \_\_\_\_\_ as presented with the following tables, graphs and figures.*
- No discussions should be presented in this part of the research paper; more than 90% of this part shows only tables, graphs, figures, etc.

#### **For Tables**

APA Style tables have the following basic components<sup>2</sup>:

- **number:** The table number (e.g., Table 1) appears above the table title and body in bold font. Number tables in the order in which they are mentioned in your paper.
- **title:** The table title appears one double-spaced line below the table number. Give each table a brief but descriptive title, and capitalize the table title in italic title case.
- **headings:** Tables may include a variety of headings depending on the nature and arrangement of the data. All tables should include column headings, including

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<sup>2</sup> <https://apastyle.apa.org/style-grammar-guidelines/tables-figures/tables>

a *stub heading* (heading for the leftmost, or stub, column). The heading “Variable” is often used for the stub column if no other heading is suitable. Some tables also include column spanners, decked heads, and table spanners; these are described in the *Publication Manual*. Center column headings and capitalize them in sentence case.

- **body:** The table body includes all the rows and columns of a table (including the headings row). A *cell* is the point of intersection between a row and a column.
- a. The table body may be single-spaced, one-and-a-half-spaced, or double-spaced.
  - b. Left-align the information in the leftmost column or stub column of the table body (but center the heading).
  - c. In general, center information in all other cells of the table. However, left-align the information if doing so would improve readability, particularly when cells contain lots of text.
- **note:** Three types of notes (general, specific, and probability) appear below the table as needed to describe contents of the table that cannot be understood from the table title or body alone (e.g., definitions of abbreviations, copyright attribution, explanations of asterisks used to indicate *p* values). Include table notes only as needed.

The diagram shows a table with the following structure:

**Table Number:** Table 1

**Title:** Means and Standard Deviations on the Measure of Self-Direction in Learning as a Function of Age in Adult Students

Age group	<i>n</i>	Inventory score	
		<i>M</i>	<i>SD</i>
20-34	15	65	3.5
35-40	22	88	6.3
50-64	14	79	5.6
65-79	7	56	7.1
80+	-- <sup>a</sup>	--	--

**Labels and Callouts:**

- Stub:** Points to the 'Age group' column.
- Column Spanner:** Points to the 'Inventory score' header.
- Headings:** Points to the 'M' and 'SD' sub-headers.
- Cell:** Points to the value '6.3' in the 'SD' column for the '35-40' age group.
- Body:** Points to the data rows of the table.
- Notes:** Points to the text below the table: 'Note. The maximum score is 100.' and 'No participants were found for the over 80 group.'

**Additional Note:** Use horizontal lines under the title, headings, and the body, but no vertical lines.

### For graphs and charts

APA Style figures have these basic components<sup>3</sup>:

- **number:** The figure number (e.g., Figure 1) appears above the figure title and image in bold font. Number figures in the order in which they are mentioned in your paper.

<sup>3</sup> <https://apastyle.apa.org/style-grammar-guidelines/tables-figures/figures>

- **title:** The figure title appears one double-spaced line below the figure number. Give each figure a brief but descriptive title, and capitalize the figure title in italic title case.
- **image:** The image portion of the figure is the graph, chart, photograph, drawing, or other illustration itself. If text appears in the image of the figure (e.g., axis labels), use a sans serif font between 8 and 14 points.
- **legend:** A figure legend, or key, if present, should be positioned within the borders of the figure and explains any symbols used in the figure image. Capitalize words in the figure legend in title case.
- **note:** Three types of notes (general, specific, and probability) can appear below the figure to describe contents of the figure that cannot be understood from the figure title, image, and/or legend alone (e.g., definitions of abbreviations, copyright attribution, explanations of asterisks use to indicate  $p$  values). Include figure notes only as needed.

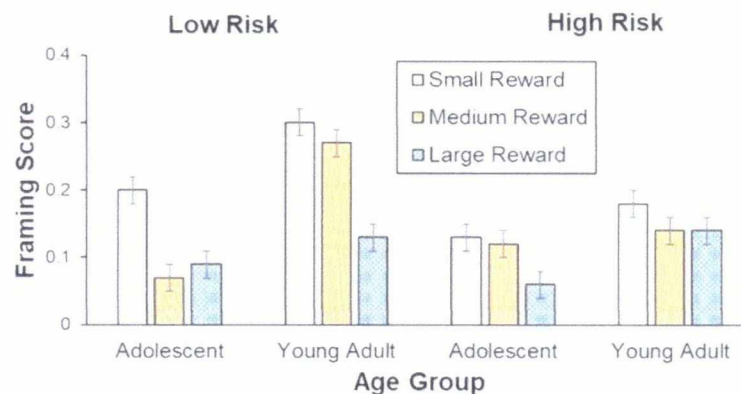
When creating a figure, ensure you meet the following standards:

- images are clear
- lines are smooth and sharp
- font is legible and simple
- units of measurement are provided
- axes are clearly labeled
- elements within the figure are clearly labeled or explained

Sample graphs and charts:

**Figure 1**

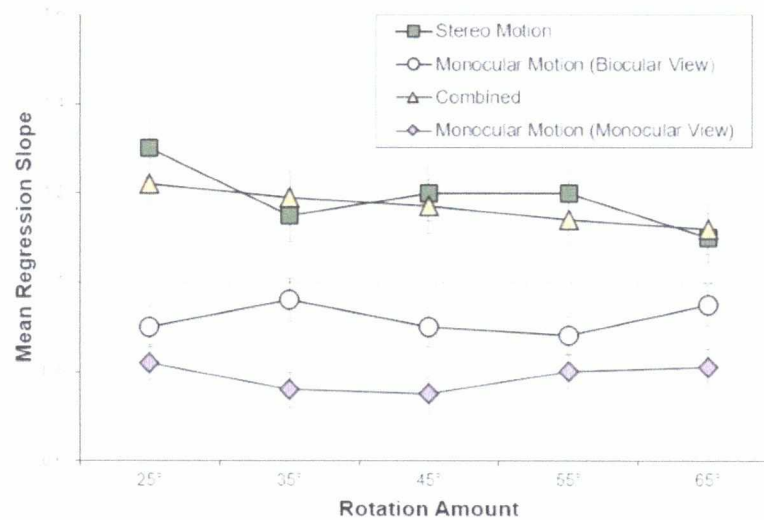
*Framing Scores for Different Reward Sizes*



*Note.* Framing scores of adolescents and young adults are shown for low and high risks and for small, medium, and large rewards (error bars show standard errors).

Sample line graph  
**Figure 3**

*Mean Regression Slopes in Experiment 1*



*Note.* Mean regression slopes in Experiment 1 are shown for the stereo motion, biocularly viewed monocular motion, combined, and monocularly viewed monocular motion conditions, plotted by rotation amount. Error bars represent standard errors. From “Large Continuous Perspective Change With Noncoplanar Points Enables Accurate Slant Perception,” by X. M. Wang, M. Lind, and G. P. Bingham, 2018, *Journal of Experimental Psychology: Human Perception and Performance*, 44(10), p. 1513 (<https://doi.org/10.1037/xhp0000553>). Copyright 2018 by the American Psychological Association.

**DISCUSSION** - What is your interpretation of these results?

- This part of the research paper should be treated as the “soul” of the research paper and not just as an accessory part.
- Most of the related literatures are integrated in this part and not in the Introduction.
- 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?
- This part of the research paper usually answers the following questions:
  - What are the implications of the results and trends derived from data analysis conducted?
  - What are and how did these factors cause such results and trends?
  - What are the other related research that agree with such results and trends? (If any, indicate how this research varied from the research conducted especially in terms of materials and methods used)

- What are established scientific knowledge (eg. science laws, basic facts) that can explain or justify such results and trends?
- What are other related research and/or scientific knowledge that contradict such results and trends? And what are the possible causes of these contradictions?
- What are and how did these possible errors (eg. unwanted factors) affect such results and trends?

**CONCLUSIONS** - What conclusions did you reach?

- It should not generalize and should present only conclusion based on the results and trends discussed. Eventually, it should answer the objectives presented in the introduction.
- 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/hypotheses? What application(s) do you see for your work?

**RECOMMENDATION** - It presents what else can be done to improve the research, to widen the knowledge about this research topic, and other variables that can be tested in relation to the research (other researchers of the same interest will usually read this part to conceptualize their own research topic).

**ACKNOWLEDGMENT** - It includes a FORMAL AND DIRECT message of thanks to the people who contributed SIGNIFICANTLY to the research. It usually includes the names of the adult-sponsor, qualified scientist, regulated research institute, and sponsors if there are any.

**REFERENCES**- What are your sources?

- 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 APA (American Psychological Association) style formatting and citation.

## **II. Parts of the Paper under Aglitekno (Science Innovation Expo)**

**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 invention.
2. Market Trends and Opportunities – This part of the report must include three items: what inspired you to develop this invention, an explanation of what problem your invention will solve, and provide supporting details that your invention does not exist yet. Explain what products are already on the market that are somewhat like your invention and describe how yours differs.

### **Materials and Methods**

Describe in detail how you made your invention. Explain what materials were used and how you put them together to make your invention. Your report should be detailed enough so that someone would be able to repeat the steps and make your invention.

Directions on how to use the invention are also necessary here. You must include a 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?

### **Conclusion**

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

### **Acknowledgments**

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 (American Psychological Association) style formatting and citation.

## **III. General Formatting of the Paper**

A well-structured science investigatory project (SIP) follows standardized guidelines to ensure clarity, professionalism, and coherence. The following style guide provides the general formatting for writing a science investigatory project, with particular attention to the norms followed in academic research papers. These guidelines are based on common academic conventions, which may vary slightly depending on institutional requirements or formatting style (e.g., APA, MLA). The general rule is that we will follow what the **Central Office Issuance** for that year indicates. **As a default, we will use the APA formatting style.**

### **A. Paper Formatting**

- **Paper Size:** A4 (210mm x 297mm)
- **Margins:** 1 inch (2.54 cm) on all sides
- **Font:** Arial, size 12 (recommended)
- **Line Spacing:** Double-spaced (2.0)
- **Alignment:** Left-aligned for text, justified for body paragraphs
- **Indentation:** 0.5 inch (1.27 cm) for the first line of each paragraph
- **Page Numbers:** In the top-right corner, starting on the title page. There should be NO markings in the headers and footers except the page number.

## B. Title Page

- **Title:** Centered, bold, and in title case (e.g., *The Effect of Organic Fertilizers on Tomato Growth*). Avoid abbreviations and unnecessary capitalization.
- **Information:** Below the title, include the following in separate lines (centered):
  - Your project code (example: PST-DO17)
  - The words: Presented to the Members of the Scientific Review Committee and Board of Judges of the Regional Science and Technology Fair 2024
  - Name of student researchers
  - Name of research adviser
  - Name of consultant/s, if any

Sample Title Page:

Soil-Borne Entomopathogenic Fungi as a Potential Biocontrol  
Agent Against Cocolisap (*Aspidiotus spp.*)

LST-R016

Presented to the  
Members of the Scientific Review Committee  
and Board of Judges of the  
National Science and Technology Fair 2020

Angelica Isabell L. Caluya  
Eisen Gabriel P. Francisco  
Daniel Francis P. Sales  
Student Researchers

Ms. Ayra Patricia S. Alvero  
Research Adviser

## C. Table of Contents

**Sections:** Include all major sections with corresponding page numbers. Example:

- Abstract

- Introduction
- Methodology
- Results and Discussion
- Conclusion and Recommendations
- References
- Appendices

**Format:** Aligned left, double-spaced, with page numbers right-aligned.

## D. Main Part of the Paper

### General Formatting

- **Headings and Subheadings:** Use bold, centered headings for each major section (e.g., Introduction, Methodology). Subheadings (e.g., Research Design, Data Collection) should be bold and left-aligned.
- **Paragraph Structure:** Each paragraph should introduce one main idea. Avoid lengthy paragraphs that discuss multiple concepts. Ensure smooth transitions between sections.
- **Tense:**
  - **Past tense** is typically used for the Methodology (e.g., "The experiment was conducted...") and Results sections (e.g., "Data were analyzed...").
  - **Present tense** may be used for background information and general discussion (e.g., "This research suggests...").
- **Voice:** Write in the third person and avoid personal pronouns (e.g., "The researcher" instead of "I" or "we").
- **Acronyms/Abbreviations:** Define the first use of any acronym or abbreviation, followed by the acronym in parentheses. Example: Department of Science and Technology (DOST)

### Content

- **Clarity:** Use clear and concise language to explain each section. Avoid unnecessary jargon. Scientific papers should aim for precision and accuracy in the description of the research process and results.
- **Logical Flow:** Ensure that each section follows logically from the previous one. For example, the introduction should lead smoothly into the methodology, which should naturally segue into the results and discussion.

- **Evidence and Support:** Back up claims with data and references to the literature. Use **in-text citations following APA 7th edition style** whenever quoting, paraphrasing, or referring to another source.

### Tables, Figures, and Data Presentation

- **Placement:** Place tables and figures as close as possible to their first mention in the text. Each table and figure should be numbered (e.g., Table 1, Figure 1) and include a descriptive title or caption.
- **Labels:** Ensure that all tables, graphs, and figures are clearly labeled, with units of measurement specified where appropriate.
- **Textual Explanation:** Always provide a brief description or discussion of the data presented in the table or figure. Explain the relevance of the data in the context of your research findings.

### Citations and Sources

- **In-Text Citations:** Follow APA 7th edition for all citations. Provide author(s) and year of publication when referring to another study or source (e.g., Smith, 2020).
- **Paraphrasing:** When paraphrasing, ensure that the original meaning is retained, and credit is given to the original author.
- **Direct Quotations:** Use sparingly. When quoting directly, include the page number in the citation (e.g., "Smith, 2020, p. 15").

### E. References

- **Heading:** Centered and bold
- **Style:** Use APA 7th edition formatting for references.
- **Format:** List all references in alphabetical order by the authors' last names. Double-space and use a hanging indent for each entry.
  - **Book Example:** Lastname, F. M. (Year). *Title of the book*. Publisher.
  - **Journal Article Example:** Lastname, F. M., & Lastname, F. M. (Year). Title of the article. *Journal Name*, *Volume*(Issue), pages.
  - **Website Example:** Lastname, F. M. (Year, Month Date). Title of the page. *Website Name*. URL

### F. Appendices

- **Heading:** Centered and bold
- **Content:** Include supplementary materials such as raw data, experimental data, additional photos, or additional graphs. Label each appendix as "Appendix A," "Appendix B," etc.

- **Format:** Each appendix starts on a new page.

**ENCLOSURE 10: NON-DISCLOSURE AGREEMENT FOR SRC/BOJ**

**NON-DISCLOSURE AGREEMENT**

I, \_\_\_\_\_, of legal age, Filipino, and  
with \_\_\_\_\_ residence \_\_\_\_\_ address \_\_\_\_\_ at  
\_\_\_\_\_, have  
accepted the role as **Scientific Review Committee (SRC) and Judge** for the  
**202\_\_ \_\_\_\_\_ Science and Technology Fair (\_STF).**

I understand that everything that I receive and access from the series of activities is the property of the proponents and should be treated with utmost confidentiality. Hence, I commit not to copy, reproduce, multiply, photograph, share, and disseminate any part of the materials, information, document, and output. I am obligated to use the materials only within the duration of the activities until its completion based on my Terms of Reference.

I understand that if I am found to have violated the conditions set for the service I rendered, I will be held accountable for my actions.

**CONFORME:**

Signature Over Printed Name of Judge/SRC

E-mail address: \_\_\_\_\_

Date: \_\_\_\_\_

Witnessed by:

\_\_\_\_\_

**ENCLOSURE 11: LEARNER MEDIA RELEASE AND CONSENT FORM**

I, the undersigned, hereby grant the Department of Education - \_\_\_\_\_  
Science and Technology Fair the right to record, film, photograph, audiotape, or videotape  
of me, my work, and performances.

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: \_\_\_\_\_