

Republic of the Philippines

Department of Education

Region I SCHOOLS DIVISION OFFICE OF ALAMINOS CITY

Office of the Schools Division Superintendent

DIVISION MEMORANDUM DM-2023 - 603

TO

: Assistant Schools Division Superintendent

Chief Education Supervisor - SGOD Chief Education Supervisor - CID

Division Education Program Supervisor In-Charge in Science Division Education Program Supervisor In-Charge in Mathematics Heads of Alaminos City National High School and Telbang National

High School

All Others Concerned

SUBJECT

2023 REGIONAL SCIENCE AND TECHNOLOGY FAIR (RSTF)

FROM

: Office of the Schools Division Superintendent

DATE

: November 28, 2023

- Per Regional Memorandum No. 1225, s. 2023, this Office announces the conduct of the 2023 Regional Science and Technology Fair (RSTF) at the National Educators Academy of the Philippines – Region 1 (NEAP R-1), San Vicente, City of San Fernando, La Union from November 30 to December 1, 2023.
- All learners who will participate in the event are required to submit their signed Parental Consent. Attached is the list of the official participants of the RSTF.
- Meals, accommodation, travel, and other incidental expenses relative to the conduct of RSTF shall be charged against local funds subject to the usual accounting and auditing procedures.
- 4. For information, guidance, wide dissemination, and compliance.

VIVIAN LUZ S. PAGATPATAN, CESO VI

Assistant Schools Division Superintendent Officer-In-Charge

Schools Division Superintendent

With hundred reasons to serve!







Address: San Jose Drive, Poblacion, Alaminos City, Pangasinan Telephone Number: (075) 205 - 0644 Website: depedalaminoscity.com

Email Address: alaminos, city@deped.gov.ph

PARTICIPANTS FOR THE 2023 REGIONAL SCIENCE AND TECHNOLOGY FAIR November 30 to December 1, 2023

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Coach		C C C C C C C C C C C C C C C C C C C	MENDEZ		ROSITA P.
Grade Level/Section	G10 Einstein G10 Einstein G10 Einstein G10 Einstein G10 Einstein G10 Einstein	G10 Einstein G10 Einstein G10 Einstein G10 Einstein	G10 Einstein	STEM 11 Pythagoras STEM 11 Pythagoras STEM 11 Pythagoras	G10 Rutherford G10 Rutherford G10 Rutherford
Group Members/Student Observers	Angel Ruth Abish Ramos Eliana Fernandez Elishia Abby Edu Gabriel Yanguas Lindsay Louise Bautista Matthew Gabriel Macasieb Paul Railey Carillo	Ace Gabriel Quanico Klein Gunneries Bubos Mei Angela Dela Peña Princess Katrina Mae Esguerra Neil Zilfred Asuncion	Angel Fontanilla Carl Jexter Rabanal Princess Jana Credo Juliana Denrev Briones Myles Laguisma Ehrica Janelle Del Rosario Janrobe Capinpin Mary Eulaine Adviento Samantha Faye Nepacena Yue-Nyiz Gines	Melaiza Goden Nicole Lopez Pauleen Cara	Zhi Sophia Ochoa Aliyah Mae Daroya Sophia Nicole Calicdan Ashley Mae Palazo
	G10 Einstein	G10 Einstein G10 Einstein G10 Einstein	G10 Einstein G10 Einstein G10 Einstein G10 Einstein G10 Einstein	ABM 11 Lucio Tan STEM 11 Pythagoras STEM 11 Pythagoras	G10 Rutherford
Official Participant	Carl Anthony Gameng	JD Reyman Reynaldo Andrea De Francia Jadha Miel Arellano	Rey Alfred Quiam Chloie Nicole Tolentino Sophia Ragudos Charly David Manuel Aldylrem Grace Ravarra Angel Kyle Estrada	Goodwill Hernaez Clark Cuaton Jescelie Estrada	Kimberly Capuno
Category	LS-I-AC-1	LS-T-AC-1	LS-T-AC-2 PS-T-AC-1	PS-T-AC-2	LS-I-AC-1

	KRIS CRISTHOPHER	DELA CRUZ
G10 Rutherford G10 Rutherford	STEM 11 Pythagoras STEM 11 Pythagoras STEM 11 Pythagoras STEM 11 Pythagoras	STEM 11 Pythagoras STEM 11 Pythagoras
Delseah Raquino Charmiane Ching	Rain Joshua Gacocos Kevin Gacayanan Yousef Shalaby Jade Baguiso	Karl Angelo Sison Jasmine Espino
	STEM 11 Pythagoras	STEM 11 Pythagoras STEM 11 Pythagoras STEM 11 Pythagoras
	Antonio Jr. W. Bonzo	Tyron Jay Palazo Hugh Spence Sas Ram allen Ranches
	RIM-1-2	RIM- T-1

TEACHER-OBSERVERS:

Life Science (AM)	ARMIDA T. LIVARA
Life Science (PM)	EZEKIEL TADENA
Physical Science (AM)	ROSEMARIE B. REYES
Physical Science (PM)	CHERRY V. ABRAZADO
SIE (AM)	MICHELLE L. NAVARRO
SIE (PM)	ANDREW R. BALECHA
RIM	JONATHAN G. MENDEZ
Mathematics and Computational LORDIAN CAMBA Science	LORDIAN CAMBA

EDUCATION PROGRAM SUPERVISORS:

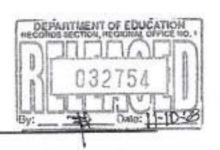
cience	DR. CYNTHIA B. TABLANG
Mathematics	DR. ADOLFO B. MEDRANC





Republic of the Philippines Department of Education

REGION I



REGIONAL MEMORANDUM

s. 2023

NOV TO 2323

2023 REGIONAL SCIENCE AND TECHNOLOGY FAIR (RSTF)

Schools Division Superintendents To:

The Department of Education, Regional Office 1 (DepEd RO1), through the Curriculum and Learning and Management Division (CLMD), announces the conduct of the 2023 Regional Science and Technology Fair (RSTF) with the theme "Rebuilding Resilient Communities: Embracing Science and Technology for a Sustainable Future* at the National Educators Academy of the Philippines -Region 1 (NEAP-R1), San Vicente, City of San Fernando, La Union on November 30 - December 1, 2023.

2. The 2023 RSTF aims to:

a.) promote Science and Technology consciousness and a culture of innovation among the youth and identify the most creative and innovative student researchers from the Junior and Senior High Schools who will represent the region to the 2023-2024 National Science and Technology Fair (NSTF);

b.) integrate the cultivation of crucial research skills such as critical thinking.

problem-solving, and the stimulation of innovation and creativity; and

c.) propel academic success and prepare the learners for excellence in their future academic pursuits and careers.

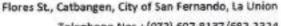
Relative to this, the following is the schedule of activities:

Activity	Date/Schedule
School Level Preparations	Sept. 1- Nov. 15, 2023
Division Level Competition	November 16-17, 2023
Submission of Entries (First Placers & Second Placers per category) to the Regional Level	November 20, 2023
Regional Paper Evaluation (SRC Screening)	November 25, 2023
Regional Science and Technology Fair	Nov. 30 - Dec. 1, 2023
Submission of Entries for the National Level (SRC)	December 15, 2023

- The official participants to this activity are the Education Program Supervisors (EPSs) In-Charge of Science and Mathematics, Judges, Observers (maximum of five(5) observers per SDO), Research Advisers /Coaches, and Student-Researchers who qualified in the regional preliminary evaluation/Scientific Review Committee (SRC) evaluation of their Science Investigatory Project (SIP) write-ups during the agreed schedule of paper evaluation.
- For this year's RSTF, no registration fee shall be charged from each participant. However, meals, accommodation, travel and incidental expenses relative to the conduct of this activity of the participants shall be charged against local funds subject to the usual accounting and auditing procedures. Student-researchers and coaches shall take charge of their own accommodation. Reservation at NEAP R1, San Vicente, City of San Fernando, shall be first-come-first serve basis. For reservation







- at NEAP R1, contact Mrs. Marivic Rioveros, in-charge of accommodation through telephone number 072-6075813 or cp number 0966-8114051.
- Other expenditures like certificates, honoraria of the Board of Judges (BOJs), materials and supplies, shall be charged against OSEC-1-23-5570 and Regional MOOE.
- The deadline of submission of the top two (2) winning entries per category (three hard copies of write-ups and one (1) usb per project) from the Schools Division Offices (SDOs) to DepEd Regional Office for the regional paper evaluation (SRC-Scientific Review Committee screening) shall be on November 20, 2023 at 5PM.
- The registration and setting-up of exhibit (Project Display Board) shall start from 10am of November 30, 2023 until 7am of December 1, 2023. Opening Program shall start at 8am of December 1, 2023. The Closing Program (Awarding) shall be conducted at 4pm of the same date.
- Corresponding service credits shall be granted to the Research Advisers/ Coaches in accordance with DepEd Order No. 53, s. 2003 and Compensatory Time-Off (CTO) shall be given to the supervisors/non-teaching personnel as stated in CSC and DBM Joint Circular No. 2, s. 2004.
- Complete Science and Technology Fair Guidelines, Mechanics, Activities and Requirements are stipulated in the NSTF Handbook.
- For further inquiries, all concerned may contact the Curriculum and Learning Management Division (CLMD) at telephone number (072) 682-2324.
- Attached are the List of the Regional Technical Working Group, and the Mechanics and Guidelines of the 2023 Regional Science and Technology Fair (RSTF).
- 12. Immediate dissemination of this Memorandum to all concerned is enjoined.

For the Regional Director:

ATTY, RHEA JOY L. CARBONELL Chief Administrative Officer Administrative Division

Encl.: As Stated

Reference: DepEd Memo 38, s. 2022 To be indicated in the Perpetual Index Under the following subjects:

CONTESTS

SCIENCE

MATHEMATICS

RESEARCH

ROBOTICS

INNOVATIONS

CLMD/jdcjr/rap/RM_2023RegionalScienceAndTechnolgyFair November 9, 2023



Enclosure No. 1 to Regional Memo No. ____, s. 2023

2023 REGIONAL SCIENCE AND TECHNONOLGY FAIR (RSTF) Regional Technical Working Group (RTWG)

Overall Chairman: Arlene A. Niro, Chief, CLMD Coordinators: Jaime D. Campos, Jr., EPS, Science Rica A. Perez, EPS, Math

*Registration, Attendance, Certificates, Awards and Documentation

- 1. Nifia Marie C. Ballada, CLMD
- 2. Bryan Mendoza, CLMD
- 2. Fredmar Balanon, CLMD
- 3. Nida N. Carbajal, LRMDS
- 4. Rowena C. Ponce, LRMDS
- 5. Irish Ione M. Ignacio, ORD-ICTUnit
- Manuel M. Tanguilig, QAD
- 7. Karina G. Aragon, PAU

*Stage & Hali Preparation, & Accomodation

- 1. Marivic B. Rioveros
- 2. NEAP R1 Personnel

*Facilitators (Life Sciences -Individual and Team Categories)

- 1. Fienie A. Galicinao, EPS, Lacag City
- 2. Rajah Adib G. Reyes, EPS, Ilocos Norte
- 3. Cynthia B. Tablang, EPS, Alaminos City

*Facilitators (Physical Sciences -Individual and Team Categories)

- 1. Fatima Jimeno, EPS, Ilocos Sur
- 2. Alex Lino, EPS, Batac City
- 3. Peter John A. Frial, EPS, Vigan City

*Facilitators (Robotics & Intelligent Machines -Individual & Team Categories)

- 1. Albert S. Gamoso, EPS, Candon City
- Cherry A. Cayabyab, EPS, Dagupan City
- 3. Rominel S. Sobremonte, EPS, La Union

*Facilitators (Mathematics & Computational Sciences -Individual & Team)

- 1. Rica A. Perez, EPS, CLMD, DepEd RO1
- 2. Eddie Raguindin, EPS, Pangasinan 2
- 3. Edgardo P. Cosares, EPS, San Fernando City
- 4. Education Program Supervisors In-Charge of Mathematics

*Facilitators (Science Innovation Expo -Individual and Team Categories)

- 1. Elmo S. Bernardino, EPS, Urdaneta City
- 2. Jesusa V. Macam, EPS, San Carlos City
- 3. Jerry R. Junio, EPS, Pangasinan1

Mechanics and Guidelines of the Regional Science and Technology Fair (Science Investigatory Project Competition)

- This competition is open to all Grades 9-12 students from both Public and Private Schools.
- The five(5) main categories are: a) Life Science, b) Physical Science, c) Robotics & Intelligent Machines, d) Mathematics & Computational Science, and e) Science Innovation Expo (Inventions).
- 3. The first and second place winning entries from each Schools Division Office (SDO) shall be submitted to the Regional Office on or before November 20, 2023 at 5PM for preliminary evaluation with the following requirements:
 - a) Three(3) hard copies of write-ups placed in A4 size bond papers and a short folder following the Project Code (to be printed in black pentel pen at the upper left corner of every folder) and color of short folders to be used as specified below:

Category of Investigatory Project	Project Code	Color of Folder
1)Life Science -Individual	LS-I-	Green
2)Life Science -Team	LS-T-	Yellow
3)Physical Science -Individual	PS-I-	Blue
4)Physical Science -Team	PS-T-	Red
5)Robotics & Intelligent Machines -Individual	RIM-I-	Orange
6)Robotics & Intelligent Machines -Team	RIM-T-	Violet
7) Mathematics & Computational Sciences -Individual	MCS-I-	Brown
8) Mathematics & Computational Sciences -Team	MCS-T-	Black
9)Science Innovation Expo -Individual	SIE-I-	Pink
10)Science Innovation Expo -Team	SIE-T-	White

*Every team category shall consist of 2-3 student-researchers. There should only be one(1) teacher-coach per category.

In writing the code of the investigatory project write-up, the following additional letters are to be added and strictly be followed as to the name of Schools Division Office specified below:

Schools Division Office (SDO)	Letter Code
1) Alaminos City	AC
2) Batac City	BC
3) Candon City	CC
4) Dagupan City	DC
5) Ilocos Norte	IN
6) Ilocos Sur	IS
7) Laoag City	LC
8) La Union	LU
9) Pangasinan 1	PI
10) Pangasinan 2	P2
11) San Carlos City	SC
12) San Fernando City	SF
13)Urdaneta City	UC
14)Vigan City	VC

Examples: For Individual Category: LS-I-AC For the Team Category: LS-T-AC

b) Soft copies of all files of the write-up in PDF format should be placed in a USB Flashdrive with a main folder following a folder filename format:

SDO ProjectCode (Example: Alaminos_City_LS-I)

*Inside the main folder, create two sub-folders. The first sub-folder should contain the Body of the research with a filename -SDO_ProjectCode_Body (Example: Alaminos_City_LS-I-Body). The second sub-folder should contain all the forms with a filename -SDO_ProjectCode_Forms (Example: Alaminos_City_LS-I-Forms).

4. The Complete Parts of Investigatory Project Write-up (arranged from top to bottom)

A. For Life Science, Physical Science, Robotics & Intelligent Machines

*Title Page and Table of Contents

Part 1. Required Forms For All Researches

- 1. Checklist For Adult Sponsor (1) (2023 ISEF Form)*
- 2. Student Checklist 1a.*
- 3. Research Plan
 - A. Rationale
 - B. Research Question Or Problem
 - C. Hypothesis
 - D. Goals/ Expected Outcomes
 - E. Research Methods/ Procedures/ Risk & Safety
 - F. Bibliography
- 4. Approval Form 1b (For All Students)*
- Abstract

Part 2. Additional Required Forms (Do not include the Form if it is not applicable)

- Regulated Research Institutional or Industrial Setting Form (1C)*
- 7. Qualified Scientist Form (2)*
- 8. Risk Assessment Form (3)*
- 9. Human Participants Form (4)*
- 10. Vertebrate Animal Form (5A)*
- 11. Vertebrate Animal Form (5B)*
- 12. Potentially Hazardous Biological Agents Risk Assessment Form (6A)*
- 13. Human and Vertebrate Animal Tissue Form (6B)*
- 14. Human and Vertebrate Animal Tissue Form (6B)*
- 15. Continuation/Research Progression Projects Form (7)*
- Part 3. Research Paper (Observe IMRAD Format)
 - 1. Cover Page
 - 2. Introduction
 - 3. Methodology
 - 4. Results
 - 5. Discussion
 - 6. Limitations On The Research Design & Material
 - 7. Conclusions, Recommendations, Notes, Works Cited And Appendices/ Bibliography & Pictorials
- Part 4. Research Abstract (Maximun 250 Words)
- Part 5. Research Logbook -Narrates the Events/Activities that the Researcher Experienced Before, During and After the conduct of the Research Project. The good notes show consistency and thoroughness to the judges and will help the researcher when writing the research paper. Data tables are recorded with accuracy. The date is recorded with the particular activity being done in the research study.

-This is the concrete evidence of the conduct of the research study.

- *Curriculum Vitae (Researcher)
- *Curriculum Vitae (Research Adviser/Coach)
- *If A Winning Entry, attach the Evaluation Forms Of SRC (Regional SRC, National SRC)
 Note: ISEF Forms* can be downloaded at the link: societyforscience.org/isef

B. For Mathematics and Computer Sciences Paper Format

Part 1 and Part 2, follow the parts from Life Science, Physical Science, Robotics & Intelligent Machines.

Part 3 -The Body of the Writeup

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 distinguish 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 Chicago Manual of Style. For more information, you may visit the websites below:
 - http://www.chicagomanualofstyle.org/home.html
 http://www.calvin.edu/library/knightcite/index.ph

C. For Science Innovation Expo Paper Format

Part 1 and Part 2, follow the parts from Life Science, Physical Science, Robotics & Intelligent Machines.

Part 3 -The Body of the Writeup

a) Title Page and Table of Contents: The title page and table of contents allows the reader to follow the organization of the paper quickly.

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RM 2023 Regional Science and Technology Fair (RSTF)

- b) 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 describe in detail how you determined that the invention that you created did not already exist. Explain what products are already on the market that are somewhat like your invention and describe how yours differs.
- c) 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.
- d) 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?
- f) Conclusions: This discusses the potential applications, possible customer benefits, and the impact of the problem in solving problems and issues of today and tomorrow.
- g) Acknowledgements: This part gives credit to those who have assisted you, including individuals, businesses and educational or research institutions.
- h) References/Bibliography: Your reference list should be written based on the Chicago Manual of Style (CMOS).
- 5. Science investigatory project writeups which were qualified by the Board of Judges during the regional paper evaluation (SRC screening) shall be the official entries for the Regional Science and Technology Fair to be held on November 31-December 1, 2023 at NEAP-R1, Brgy. San Vicente, City of San Fernando, La Union.
- 6. The Board of Judges in the regional paper evaluation (SRC screening) and in the regional level Science and Technology Fair shall evaluate the qualified Science Investigatory Projects based on the following criteria for judging:

Impact/Relevance of Investigatory Project to the Community-25%
Originality, Creativity & InventivenessThoroughness, Accuracy & Completeness of Write-upPresentation
Total
100%

- 7. During the RSTF, there shall be an oral presentation (with PowerPoint presentation) within 3-5minutes by the student-researchers to the board of judges. A 3-5minute question and answer portion with the board of judges shall follow right after the oral presentation.
- The top five (5) winners together with their coaches in each category will receive certificates of recognition. The Best Presenter and the Best Display Board per category shall also be awarded with certificates of recognition.