

# Republic of the Philippines Department of Education

NATIONAL CAPITAL REGION
SCHOOLS DIVISION OFFICE OF MUNTINLUPA CITY

Office of the Schools Division Superintendent

NOV 06 2024.

MEMORANDUM No. <u>307</u>, s. 2024

#### ADDENDUM TO REGIONAL MEMORANDUM NO. ORD-2024-1027: 2024 REGIONAL SCIENCE AND TECHNOLOGY FAIR (RSTF)

To:

Assistant Schools Division Superintendent

Chief Education Supervisor, Curriculum Implementation Division

OIC- Chief Education Supervisor, Schools Governance and Operations Division

All Public Elementary and Secondary School Heads/OICs

All Others Concerned

- 1. Attached is Regional Memorandum No. 1132, s. 2024 entitled Addendum to Regional Memorandum No. ORD-2024-1027: 2024 Regional Science and Technology Fair (RSTF) which states that Quezon City Science High School is the venue of the RSTF on November 6 8, 2024.
- 2. Also attached is the list of participants to the said activity.

3. Immediate and wide dissemination of this memorandum is desired.

VIOLETA M. GONZALES

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

Encl: As stated Reference: As stated

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

STUDENTS

TEACHERS

SCIENCE AND MATH EDUCATION

CCA/ADDENDUM TO REGIONAL MEMORANDUM NO. ORD-2024-1027: 2024 REGIONAL SCIENCE AND

TECHNOLOGY FAIR (RSTF) 307 November 4, 2024











# Republic of the Philippines Department of Education

NATIONAL CAPITAL REGION
SCHOOLS DIVISION OFFICE OF MUNTINLUPA CITY

#### LIST OF PARTICIPANTS November 6 - 8, 2024

Name	Designation
Lambert G. Quesada	EPS - Mathematics
Clarisa C. Avila	PSDS/OIC in Science

#### ENTRIES FOR THE REGIONAL SCIENCE & TECHNOLOGY FAIR 2024

CATE	GORY	RESEARCH TITLE	RESEARCHER/S	COACH	SCHOOL
	Individual	CARCINOGENIC RISK ASSESSMENT OF SODIUM HYPOCHLORITE EXPOSURE TO MALLARD EGGS	Alfonzo Gabriel V. Soliveres	Mark Archei O. Javier	Muntinlupa Science HS
Life Science Tear	Team	MAHOGANY LEAVES IN CRYSTALLIZATION REGULATION ON CALCIUM OXALATE CRYSTALS	Kim O. Codog, Pierre Van Aken A. Dionaldo, and Geanne Gaye G. Guimal	Ms. Princess C. La Rosa	Muntinlupa National HS
Physical Science	Individual	PHYTOCHEMICAL ANALYSIS AND OPTIMIZATION OF TALAHIB LEAF EXTRACT FOR TRANSDERMAL PATCH FORMULATION: DEVELOPMENT OF A POTENTIAL WOUND HEALING AGENT	Michael John B. Rojo	Ms. Princess C. La Rosa	Muntinlupa National HS
	Team	FOXTAIL PALM FRUIT AS AN ACTIVATED CARBON ELECTRODE FOR MICROBIAL FUEL CELL	James Matthew Lim, Humphrey Bangayan, Ahmed Ali Somosa	Ms. Princess C. La Rosa	Muntinlupa National HS
	Individual	MARC: MECHANIZED AQUATIC ROBOT FOR CLEANUP	Kashieka Louise R. Aguilar	John Fitzgerald M. San Pedro	Muntinlupa Science High School
Robotics and Intelligent Machines	Team	GENDUCK: GENDER IDENTIFICATION OF ITIK PINAS-KAYUMANGGI EGGS THROUGH ECCENTRICITY ANALYSIS USING RASPBERRY PI AND OPENCY IMAGE PROCESSING	Yoshi Sean T. Apuntar, Jowee Austin G. Magturo, and Jasel Angela S. Berones	Chandler Erickson A. Cachuela	Muntinlupa Science High School











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Mathematics	Individual	MATHEMATICAL MODELLING OF THE HYPOXIAINDUCIBLE FACTOR PATHWAY UNDER VARYING OXYGEN LEVELS AND ITS EFFECT ON THE GLYCOLYTIC PATHWAY OF CANCER CELLS	Benedict John R. Caperocho	Mark Archei O. Javier	Muntinlupa Science High School
and Computational Science	Team	TRAFFIC LIGHT PHASING OPTIMIZATION AT OVERSATURATED FOUR-PHASED CROSS INTERSECTIONS ENHANCING WEBSTER'S FORMULA WITH TRAFFIX EQUATION USING SIMULATION OF URBAN MOBILITY (SUMO)	Charlene Nicole D. Padre-e, Sabien Caligner, and Max Angelo G. Basio	Chandler Erickson A. Cachuela	Muntinlupa Science High School
	Individual	SOLAR-POWERED "ARDUANA" ARDUINO- BASED IOT DECOUPLED AQUAPONICS SYSTEM	Laurice Amanda Bonalos	Ms. Princess C. La Rosa	Muntinlupa National High School
Science Innovation Expo	Team	PHOTOVOLTAIC PANEL PERFORMANCE OPTIMIZATION VIA BIO- BASED PHASE CHANGE MATERIAL INGTEGRATION: A STUDY OF BEEF TALLOW, PALM OLEIN, PARAFFIN WAX, AND IRON WOOL COMPOSITE EVALUATED T-HISTORY METHOD	Greff Aeon P. Bautista, and Edralyne P. Brigola	Geraldine Gonzales	Muntinlupa Science High School









# Republic of the Philippines Department of Education

NATIONAL CAPITAL REGION SCHOOLS DIVISION OFFICE OF MUNTINLUPA CITY

#### LIST OF PARTICIPANTS November 7, 2024

Name of Teacher	School
Shiela Luz Tabago	
Jeffrey Del Mundo	Muntinlupa National High School
Hazel Jhoy Del Mundo	
Jay Mark Torno	
Paolo Bundoc	Muntinlupa Science High School
Judith Palma	













October 28, 2024

REGIONAL MEMORANDUM

No. . 1132 ,s. 2024

To: Schools Division Superintendents

All Others Concerned

Received:

EVELYN N. DINGAL

Administrative Officer II

SDO-Minitialupa

10-30-24 8-30

# Addendum to Regional Memorandum No. ORD-2024-1027: 2024 Regional Science and Technology Fair (RSTF)

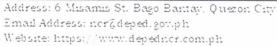
- 1. Please be informed that **Quezon City Science High School** is the venue of the 2024 Regional Science and Technology Fair on November 6 8, 2024.
- 2. Education Program Supervisors in charge in Science and Math are also advised to fill up the form the percentage of the Research Advisers Academy 2024.
- 3. Enclosed are the additional guidelines and activities to be conducted.

4. Immediate dissemination of this Memorandum is desired.

JOCELYN DR ANDAYA







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#### **Enclosures**

A. The following dates are added and/or modified in relation to the conduct of 2024 Regional Science and Technology Fair.

DATE	ACTIVITIES	PERSONS INVOLVED
October 30, 2024 (Wednesday) 2:00 PM- 3:00 PM	Research Advisers Online Briefing prior to the conduct of 2024 RSTF	Science and Mathematics Supervisors
Via MS Teams (link to be sent to Science Supervisors)		Officers of the NCR Research Advisers Association Research Advisers of RSTF Qualifiers
October 31, 2024 (Thursday) 8:00 AM onwards	Ocular Inspection of the Venue  Final Meeting of the EPSs and the members of the Technical Working Group	Science and Mathematics Supervisors Officers of the NCR Research Advisers Association Host Division

B. Three hard copies of the entries to be submitted to the RSTF 2024 must be **ring-bind** and have **tabs** to indicate the different parts of the submission. The cover should be transparent, and the back cover should be color coded based on the color code indicated in the regional memorandum.

The arrangement of the papers is as follows:

1. For Science Investigatory Projects (Life, Physical, Robotics, Mathematics and Computational Science)

Front Page - Title Page

A - SRC Form, which includes

- A.1 Printed SRC Form from the drive
- A.2 Division SRC Form
- A.3 School SRC Form





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- **B** Forms for ALL PROJECTS
- C Forms for SPECIFIC PROJECTS
- D Abstract Form of ISEF
- E Research Paper (IMRADC Format)
- F Project Evaluation Form, which includes
  - F.1 Blank PEF for Region
  - F.2 Division PEF
  - F.3 School PEF
- G Logbook
- H Plagiarism Scan Report
- 2. For Science Innovation Expo

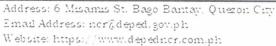
Front Page - Title Page

- A. Innovation Paper
- B. Innovation Expo Screening Form
- C. Innovation Expo Judges Form
- D. Plagiarism Scan Report
- E. Logbook
- F. Simple Patent Search Report
- C. Researchers and research advisers are advised to check **Enclosure 10: NCR Research Science Investigatory Project Style Book** for uniformity in terms of formatting of the paper. **APA 7**<sup>th</sup> **edition** shall be used in all the entries.
- D. The following are the prescribed dress codes for each of the days:

	Students	Research Advisers
November 6	School Uniform	DepEd Uniform for Wednesday
November 7	White Shirt	DepEd Uniform for Thursday
November 8	Mocha Colored Shirt (or	NCRAA Shirt)







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## Department of Education

NATIONAL CAPITAL REGION



#### REGIONAL MEMORANDUM

ORD-2024-

TO

SCHOOLS DIVISION SUPERINTENDENTS

Math and Science Education Program Supervisors

SUBJECT

2024 Regional Science and Technology Fair (RSTF)

DATE

October 3, 2024

- 1. The Department of Education National Capital Region through the Curriculum Learning and Management Division (CLMD), shall conduct the above captioned activity with the theme "Towards a Shared Vision: Exploring the Future for a Better Tomorrow" on November 6-8, 2024, to be hosted by SDO Quezon City.
- 2. This event integrates the cultivation of essential research skills such as critical thinking, problem-solving, and the stimulation of innovation and creativity. These competencies not only propel academic success but also prepare the students for excellence in their future academic pursuits and careers. Likewise, it aims to identify the most creative/innovative and the best student researchers who will represent the region in the upcoming National Science and Technology Fair (NSTF) in March 2025.
- 3. The conduct of the school and division Science and Technology Fair (STF) shall be held in the following months:

Level	Date
School S & T Fair	September/October 2024
Division S & T Fair	October 2024

4. The official participants to the 2024 Regional Science and Technology Fair shall only be the Rank 1 of the Division Science and Technology Fair (DSTF) and Regional Science High School in each of the different categories and whose entries have been approved Regional Scientific Review Committee. Substitutes shall not be allowed. The description and the maximum number of official participants are the following:

Maximum Number Participants per SDO	of	Student	Individual	Team (maximum of 3)
1. Life Science Category			1	3
2. Physical Science Cate	gory		1	3







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3. Robotics and Intelligent Machines Category	1	3
4. Mathematics and Computational Science Category	1	3
5. Science Innovation Expo	1	3
TOTAL	5	15
Grand Total		20

- 5. Participants, trainers and Regional Technical Working Group shall be entitled to service credits in accordance with DepEd Order No. 53, s. 2003 entitled Updated Guidelines on the Grant of Vacation Service Credits to teachers. However, non teaching personnel including Management Staff shall be given with Compensatory Time-Off (CTO) per Civil Service Commission (CSC) and Department of Budget and Management (DBM)Joint Circular No.2, s.2004 on Non-Monetary Remuneration for Overtime Service Rendered, specific attention on Section 5.
- 6. The soft copy of the official division entries must be submitted on **October 18**, **2024**, from **8:00 AM** to **5:00 PM** only. The OneDrive link for submission will be provided to the NCR Science and Math Supervisors' Group. Additionally, Division Math and Science Supervisors are requested to submit and upload the report on the conduct of the Division Science and Technology Fair, along with the data of all Science and Math research entries in Excel format, following the template in Enclosure No. 5, by October 30, 2024. Failure to submit the report on time shall disqualify the Division from the 2024 Regional Science and Technology Fair.
- 7. Regional and Division Math and Science Supervisors or assigned Focal Persons under the Curriculum and Instruction Division and/or the Curriculum Implementation Division shall lead the conduct of the school, division, and regional level Science and Technology Fair respectively.
- 8. The following documents are enclosed, for information and guidance of all concerned:

Enclosure No. 1-A Official Delegates to RSTF 2024
Enclosure No. 1-B Guidelines on the RSTF 2024

Enclosure No. 2 Schematic Diagram on the Flow of Activities Enclosure No. 3 Timelines of Activities and Requirements

Enclosure No. 4 Working Committees

Enclosure No. 5 Format of the Data and Report

Enclosure No. 6 Scientific Review Committee (SRC) Form and

Recommendation Report Form: and







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Enclosure No. 7	BOJ Project Evaluation Form
Enclosure No. 8	Innovation Expo Screening Form
Enclosure No. 9	Innovation Expo Judges Form
Enclosure No. 10	NCR Research Science Investigatory Project Style
	Book
Enclosure No. 11	Non-disclosure Agreement for SRC/BOJ
Enclosure No. 12	Learner Media Release and Consent Form

8.1 Further, Division Math and Science Supervisors/ Coordinators, School Heads and participants are expected to download soft copies of the International Rules for Pre – college Science Research: Guidelines for Science and Engineering Fair 2024 and required forms. Resources can be accessed through this link:



- 9. Expenses incurred during the conduct of the 2024 RSTF shall be charged to the local funds and other sources, subject to the usual accounting and auditing rules and regulations.
- 10. Immediate dissemination of this Memorandum is desired.

JOCELYN D.R. ANDAYA
Director IV

Encis

As stated Reference:

DepEd Order 21, s.2019 DepEd Order 68, s.2023 DepEd Order 10, s.2024

To be indicated in the <u>Perpetual Index</u> under the following subjects: CELEBRATIONS AND FESTIVALS

CONTESTS LEARNING AREA, Science SCHOOLS STUDENTS









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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 30 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/	Maximum Number of Participants		TOTAL	
Regional Science HS	Participants	Coach		
Life Science Category				
Individual	1	1	2	
Team	3	1	4	
Physical Category				
Individual	1	1	2	
Team	3	1	4	
Robotics and Intelligent Machines Category				
Individual	1	1	2	
Team	3	1	4	
Mathematics and Computat	ional Science (	Category		
Individual	1	1	2	
Team	3	1	4	
Science Innovation Expo (SIE)				
Individual	1	1	2	
Team	3	1	4	
TOTAL	20	10	30	

The official representatives are the SDO's first place winner/s in their respective DSTF.