



Republic of the Philippines  
**Department of Education**  
CORDILLERA ADMINISTRATIVE REGION

DEC 19 2024

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18 December 2024

**REGIONAL MEMORANDUM**

No. 913.2024

**OFFICIAL RESULTS OF THE 2024 REGIONAL SCIENCE AND MATH FESTIVAL**

To: Assistant Regional Director  
Schools Division Superintendents  
Division Education Program Supervisors  
Heads of Elementary and Secondary Schools  
All Others Concerned

1. Relative to the **Regional Memorandum No. 772, s. 2024**, titled, **2024 Regional Science and Technology Fair**, the Department of Education-Cordillera Administrative Region (DepEd – CAR) through the Curriculum and Learning Management Division (CLMD), announces the **Official Results of the 2024 Regional Science and Math Festival** held last **December 11-13, 2024** at Besao Central School, Mountain Province.
2. This Office congratulates the winners and acknowledges the full support of the Schools Division Offices (SDOs) and schools for the successful conduct of the said activity. List of winners are found in Enclosure 1.
3. First placers in the 2024 Regional Science and Math Festival under **TUKLAS** will represent DepEd – CAR in the upcoming 2024 National Science and Technology Fair (NSTF).
4. For inquiries or concerns, please contact CES Jennifer P. Ande at the Curriculum and Learning Management Division (CLMD) through landline number (074) – 422-7096 or email address: car.clmd@deped.gov.ph.
5. For information and guidance of all concerned.

  
**ESTELA P. LEON-CARIÑO, EdD CESO III**  
Director IV/Regional Director 

CLMD/JPA/aster/Official Results  
12/18/2024



**Address:** DepEd-CAR Complex, Wangal, La Trinidad, Benguet, 2601  
**Telephone No:** (074) 422 – 1318  
**Email Address:** car@deped.gov.ph



DepEd Tayo Cordillera



<https://depedcar.ph>

Enclosure 1 to RM no. 913.2024

**2024 REGIONAL SCIENCE AND TECHNOLOGY FAIR  
LIST OF WINNERS**

**EVENT: LIFE SCIENCE - Individual**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	Assessing the Effects of Cassava Leaf ( <i>Mahinhot esculenta</i> ) and Bamboo Shoot ( <i>Bambusa vulgaris</i> ) Extract on the Hatching Viability of Golden Apple Snails ( <i>Pomacea canaliculata</i> ) Eggs	Drew Gwyneth B. Batiny	Ann Jill D. Guitelen	Cordillera Regional Science High School	
2 <sup>nd</sup>	In-Vitro Anticogulant Effect of Vegetable Fern from "Pako" ( <i>Diplazium esculentum</i> ) Leaves Extract on Human Venous Blood Samples	Keizha Caren C. Remorosa	Abe Jerome Gacad Jephunneh A. Gasmen	Abra High School	Abra
3 <sup>rd</sup>	Isolation and Characterization of Endophytic Fungi and Bacteria from Corn Seeds	Gian Redave F. Massonnal	Arcelle D. Elardo	Pinto National High School	Ifugao

**EVENT: LIFE SCIENCE - Team**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	Anthelmintic Activity of Dried Papaya Seeds Tea Nutrients Solution Against Chicken Roundworms	Sunielle Mopnique G. Pascua Jed Laurence P. Bautista Jian Dale B. Ignacio	Jephunneh A. Gasmen	Abra High School	Abra
2 <sup>nd</sup>	BetTerCal: Its Efficiency as an Alternative Glucose Control	Edmar Jhun Soliven Hilda Therese Estepa	Mylene G. Dalliwag	Apayao Science High School	Apayao

			Sienna Angelli MUan			
3 <sup>rd</sup>	Evaluation of the Fungicidal Effect of Oregano and Rosemary Essential Oils Against Septoria lactuca in Lettuce	Venice Valerie C. Ablaza Chad Weldon A. Juanito Kirzten Xanthe G. Kinomis	Denver P. Dokey	Cordillera Regional Science High School		
3 <sup>rd</sup>	Phytochemical and Toxicity Analysis of Saba Central Softcore Chips	Kirt Hendrick R. Albino Kenan M. Tarcuan Fredelyn G. Pad-eng	Johnny P. Buasen	Sto. Tomas National High School		Baguio City

**EVENT: PHYSICAL SCIENCE - INDIVIDUAL**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	Rice Truck for Rapid Agricultural Collection	Leianne Vale C. Ceria	John John F. Martinez	Apayao Science High School	Apayao
2 <sup>nd</sup>	Pulverized Guava and Mango Leaves as Ripening Retardant for Saba Fruit	Rouman Ayhr Montanez Montoya	Wanda Lyn A. Pladio	Lepanto National High School	Benguet
3 <sup>rd</sup>	Fire-resistant Rock Nets: Utilizing Natural Fiber from Coconut and Corn for Enhanced Fire Protection	Anjhelleigh Ken Botiwitw	Marcelo V. Watawat	Cordillera Regional Science High School	

**EVENT: PHYSICAL SCIENCE - TEAM**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	Recovery and Optimization of Waste Heat Energy from Common Household Appliances Using an Improvised Thermoelectric Generator	Shameia Keith M. Dangatan Jozel E. Legaspi Claudine B. Taule	Denver P. Dokey	Cordillera Regional Science High School	

2 <sup>nd</sup>	The Potential of the Amiscusmarfic Cane as an Innovative Assisting Device for Visually Impaired Individuals	John Rhey M. Solano Clint V. Cabradilla Stephanie P. Litawen	Nelia L. Depaynos	Tublay School of Home Industries	Benguet
3 <sup>rd</sup>	Carbon Coated TiO2 Nanoparticles on 3D Activated Carbon Anode for Output Power Density Enhancement in Soil Microbial Fuel Cells	Jared Jairus A. Licdan Antonio Erich Von R. Nafoz Robin Nev D. Abrera	Ariel Millare	Baguio City National Science High School	Baguio

**EVENT: INNOVATION-INDIVIDUAL**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	SMART COOLING PLATE, PROJECT: FROST-PRO	Marc Ceasar t. Ballad	Michael B. Bernardo	Apayao National High School	Apayao
2 <sup>nd</sup>	Eco-boards Redefined: Maguey Fibers for Sustainable Fiberboard Innovation	Wayne E. Eusebio	Denver P. Dokey	Corallera Regional Science High School	
3 <sup>rd</sup>	AutoGuard: Anti-Theft GPS and Notification System Via SMS with Biometric Finger Printing	Beatrice D. Mogado	Jephunneh A. Gasmen	Abra High School	Abra

**EVENT: INNOVATION-TEAM**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	Papyri Innovation, Assessing the Level of Satisfaction and Acceptability Among Grade 7-8 Students of BCNSHS	Jaixha Marylovix T. Gubatan Lanz Jyro B. Quintinita John Axl B. Rumbaao	Odigar Joice Chavez Florence P. Truntich	Baguio City National High School	Baguio City
2 <sup>nd</sup>	Eco-Friendly Vending Machine for Bottles or Cans Payment and Charging Solution	Siekai Son P. Sadca Jude Adolf C. Mangsi Gera Y. Domalos	Floriciel G. Bentayon	Lam-ayan Integrated School	Benguet
3 <sup>rd</sup>	Sensor Trashcan with Built-in Automated Shredder Machine	Juzmine Valen U. Princena Akyra Marie T. Quidangen	Fely C. Aquino	Abra High School	Abra

	Kurt Mozzeys I. Kiaso	
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**EVENT: RIM-INDIVIDUAL**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	AIJUAN: An AI Portable Aide Monitoring and Alerting Robot	Vhi Jay Bright W. Orena	Arnold Vyonn Ubaldo	Apayao Science High School	Apayao
2 <sup>nd</sup>	Application of Rechargeable SPMS Air Rover Purifier for Indoor Air Particle Filtration and Smoke Detection	Cherub Mica Navarro	Jephunneh A. Gasmen	Abra High School	Abra
3 <sup>rd</sup>	AirPal: Cloud-Powered, Remote-Controlled Teleconference Robot for Seamless Remote Interaction	Jermaine G. Villarico	Mildred K. Pa-ac	Baguio City National High School	Baguio

**EVENT: RIM-TEAM**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	5S (SMART SOLAR-POWERED SOLID WASTE MANAGEMENT SYSTEM)	Joanne Kimmo Houdean Legaspi Neil Wance	Eugene Espiritu	Benguet NHS	Benguet
2 <sup>nd</sup>	Wastewiz: Automatic Waste segregating and Incentivizing Trashbin	Prince Andre Balanhi Christine Gwyn Lapore Yonica Aerielle Yuzon	Mirasol Lamuton	Ifugao Provincial Science HS	Ifugao
3 <sup>rd</sup>	AIDA: Artificial Intelligence Driven Assistant	Ainsley Jevan Yeso Marc Andrei Umayam Marc Jerome Eringan	Arnold Ubaldo	Apayao Science HS	Apayao

**EVENT: RISE JHS-INDIVIDUAL**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	Evaluation of Kilongganisa as an Alternative to Commercial Longganisa	Jezelle T. Canite	Nelia L. Depaynos	Tublay School of Home Industries	Benguet

2 <sup>nd</sup>	Tapey-licious Cookie Bites	Erwin Daniel B. Coga-ay	Evelyn R. Nocelo	Baguio City High School	Baguio
3 <sup>rd</sup>	Fortification of Sugarcane Muscovado with Phytochemicals from Turmeric, Lemongrass, and Wild honey: Impact on Nutritional Density, and Organoleptic Qualities	Stella Mariz A. Zapata	Jephunneh Gasmen	Abra High School	Abra

**EVENT: RISE JHS-TEAM**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	Innovative Culinary Solution: Evaluation of Chicken Kining as Nutritious Alternative Pork	Mary Althea B. Tiw-ac Ira Gieselle A. Andres	Marivic K. Cosalan	Tublay School of Home Industries	Benguet
2 <sup>nd</sup>	Harvesting Potential: Job's Tear as a Nutrient-packed Rice Flour Alternative	Shyree Kayzrille Ann B. Datoc Laarni Kate B. Lingaling Cindy B. Pangda	Cherry Mae B. Gayaso	Cordillera Regional Science High School	
3 <sup>rd</sup>	Exploring the Medicinal Properties of Allum Tuberosum in Ointment Formulation for the Preservation and Conservation	Jessica S. Dawey Harris Dave B. Lang-akan	Rocky Solimen	Guisad Valley National High School	Baguio City

**EVENT: RISE SHS-INDIVIDUAL**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	Carbonized Dried Banana Peelings, Waste Residue Paper and Eggshells: An Alternative Ecobriq for Sustainable Energy Fuels	Lyndon P. Malipe	Rose Kayee D. Pecay	Cordillera Regional Science High School	
2 <sup>nd</sup>	Trivita Chips	Sarah Mosqueda	Angie Dulnuan		Ifugao
2 <sup>nd</sup>		Xedrick Elbert Tabula	Rufina Cadsis	Baguio City National High School	Baguio
3 <sup>rd</sup>		Christel Marianne Viado	Abe Jerome Gacad	Abra High School	Abra

			Jephunneh A. Gasmen	
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**EVENT: RISE SHS-TEAM**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	Harvesting Indigenous Resources: The Potential of Maguey Fibers in Cordillera Textile	Devra May B. Capepsan Marque G. Manarang Samantha Mae S. Orasing	Denver P. Dokey	Cordillera Regional Science High School	
2 <sup>nd</sup>		Vince Lloyd Cariaga Harry Davis Galleon Adrian Angelo Garcia	Dane Gamiao	Apayao Science High School	Apayao
2 <sup>nd</sup>		Jhay Brench M. Bermudez Jim Emmanuel D. Bringas Wynfrey V. Balican		Abra High School	Abra
3 <sup>rd</sup>	Biodegradable Seedling Tray Using Coconut Coir	Charlene Divina Desamito Dexyl Faith Dominong Bhea Flor Valino	Jane L. Butale	Ifugao Provincial Science High School	Ifugao

**EVENT: MCS TEAM**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	Forecasting Vegetable Prices in La Trinidad Benguet Using SARIMA Process with Box-Cox Transformation	Dejana K. Esnara Marvell C. Pily Rainier Jay M. Yapen	Heather G. Banagui	Cordillera Regional Science High School	
2 <sup>nd</sup>	Baguio Breakthrough: Optimizing the Shortest Routes to Tourist Destinations in the City of Pines	Hayden Bon I. Dulnuan Cynara Aliyha C. Liano Kheseya L. Liwan	Jessica A. Yeaban	Rizal National High School	Baguio City

3 <sup>rd</sup>	Development of Predictive Model Agriculture Water Discharge and Supply for Irrigated Farmlands in Flora, Apayao	Mark Lester T. Arafilles Jamaica Sheryllyne A. Ceredon Gither Lloyd N. Tunac	Janet M. Duldulao	Flora National High School	Apayao
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**EVENT: MCS Individual**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	A Spatio-Temporal Analysis of the Distribution of Pests in Rice Crops in Cordillera Administrative Region	Katryn Angela Eun A. Ridon	Heather G. Banagui	Cordillera Regional Science High School	
2 <sup>nd</sup>	Development of a Flood Resilience Forecasting Model: Analyzing Community Variables and Typhoon Cost Damage in Lower Apayao	Ean Patrick Borrromeo	Jamaica Ramos	Apayao Science High School	Apayao
3 <sup>rd</sup>	Optimizing Vegetable Inflow at La Trinidad Trading Post: A Mathematical Model	Joshua Nico V. Bati	Jerry L. Manogan	Guisad Valley National High School	Baguio City

**EVENT: MIP Problem-based INDIVIDUAL**

RANK	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	Zuri Leigh D. Ullalim	Beverly Ngao-i	Tabuk City National High School	Tabuk City
2 <sup>nd</sup>	Jan Manuel Salvador	Donnie Ray Cruz	PVHS	Apayao
3 <sup>rd</sup>	Evolet P. Taitala	Jonathan Manzanero	Cordillera Regional Science High School	

**EVENT: MIP Problem-based -TEAM**

RANK	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	Nathaniel L. Gauken Bea C. Longkiao Kirsten Khloe C. Piluden	Alleyan B. Dogao	Cordillera Regional Science High School	
2 <sup>nd</sup>	Hercy Juelep Bangguiyao Lyra Rian B. Likigan	Joane D. Kimbungan	Lepanto National High School	Benguet



	Hyvene Jhuz S. Dangla Timothy Job B. Cuilan Rhaizel Justine B. Cuilan Jared Bastly G. Tengay	Ricky Landocan	Baguio City High School	Baguio City
3 <sup>rd</sup>				

**EVENT: MIP – Research Based Individual**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	THE TOTAL NUMBER OF $m$ UNIT SIZE BASE OF TRIANGLES POINTING INWARDS IN EVERY $k$ LAYERS OF A CONCENTRIC REGULAR $n$ -GON	Napoleon Rei U. Chua	Shyma T. Mabili Heather G. Banagui	Cordillera Regional Science High School	
2 <sup>nd</sup>	Analyzing Triangular Intersections: Formulas for Small Triangles, Hexagons and Isosceles Triangles in Two Intersecting Equilateral Triangles	Wren Yser Q. Picart	Agustina B. Padinay	Tublay School of Home Industries	Benguet
3 <sup>rd</sup>	Infinite Rhombi Trihexagonal Tessellation	Britany Krizha T. Lawagan	Delfin Alacyang	Pines City National High School	Baguio City

**EVENT: MIP-Research Based Individual**

RANK	RESEARCH TITLE	NAME OF LEARNER/S	COACH	SCHOOL	DIVISION
1 <sup>st</sup>	TOTAL NUMBER OF FLOWER-LIKE STRUCTURES FORMED THROUGH THE INTERSECTION OF 4 SEMI-CIRCLES IN A $c \times d$ GRID AT $k$ LAYERS	Shanie Krisha P. Capaito Samantha G. Tirazona	Heather G. Banagui	Cordillera Regional Science High School	
2 <sup>nd</sup>	Expanding Spiral Regular Polygons	Alwin Jay R. Boado Janelle P. Bomogao Xyza Rhian D. Caaille	Laila B. Kiw-isen	Baguio City National High School	Baguio City

3 <sup>rd</sup>	Cruciform Flower Formed from the Intersections of Orthogonal Conjugate Parabolas	Alysa Jew S. Morales Alysa Clarisse A. Perdido Vanessa Leigh T. Valdez	Daine D. Gamiao	Apayao Science High School	Apayao
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