

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

November 5, 2024

DIVISION MEMORANDUM
 No. 442, s. 2024

**ANNOUNCEMENT OF WINNERS FOR THE
 DIVISION SCIENCE AND TECHNOLOGY FAIR (DSTF) 2024**

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

- In reference to Division Memorandum 396 s. 2024, re: *Division Science and Technology Fair (DSTF) 2024*, the Office extends its warmest congratulations to the school heads, science coordinators and the technical working group of the recently concluded Division Science and Technology Fair 2024.
- Likewise, the Office extends its sincere recognition and appreciation to the winners:

LIFE SCIENCE PAPER PRESENTATION – INDIVIDUAL

RANK	RESEARCH PROJECT TITLE	Student Researcher	Coach	School
First	Bioactive Compounds of <i>Imperata cylindrica</i> as Potential Therapeutic for Cancer	Sandy Jane C. Nob	Phoebe Joy M. Pacut-Lopez Christine Heazel O. Francisco	Cogon National High School
Second	Black Cylinder: A House Fly (<i>Musca domestica</i>) Trap through the Fermentation Process of Banana (<i>Musa acuminata</i>) Pseudostem Extract, Color Psychology in Entymology, and Structural Design of the Confinement	Jorish M. Bongabong	Christian Delle C. Ragmac	Kalabaylabay Integrated School



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LIFE SCIENCE PAPER PRESENTATION – TEAM

RANK	RESEARCH PROJECT TITLE	Student Researcher	Coach	School
First	Antimicrobial Efficacy of Averrhoa carambola leaf extract against Gram-positive and Gram-negative bacterial strains	Angel Mae A. Magnetico Cielo B. Erestingcol Jhanhia Mhie S. Bonayog	Grace M. Bermudez	Hinigdaan National High School
Second	In Vivo Evaluation of a Natural Mosquito Repellent Diffuser: Harnessing the Synergistic Effects of Essential Oils from <i>Vitex negundo</i> , <i>Chromolaena odorata</i> , and <i>Pandanus amaryllifolius</i>	Ryan Matthew S. Agan Mae Kyla Grace B. Ralozo Claire Lhaarnie R. Quilab	Rince Cheal A. Entice	Kalabaylabay Integrated School
Third	Cocopeat as an Alternative Pot Material: A Study on Root Development and Growth Rate	Kent Joshua L. Pahilan Kerby F. Nazareno John Kyle B. Lauron	Jessica Micabalo	Molugan National High School

PHYSICAL SCIENCE PAPER PRESENTATION – INDIVIDUAL

RANK	RESEARCH PROJECT TITLE	Student Researcher	Coach	School
First	Assessing the Performance of Banana Peel Extracts as an Eco-Friendly Floor Wax Alternative	Kristine P. Cajilla	Rheza Mae P. Ebal	Molugan National High School
Second	Nipa Husk (<i>Nypa fruticans</i>) Fibers as a Mitigating Agent in Oil Spill Control	Rhean Mae M. Mambayla	Christian Delle C. Ragmac	Kalabaylabay Integrated School
Third	AbeenoPak: A Honeycomb-patterned, Banana Pseudostem Fiber into Fertilizer-Ready Courier	Jeanine T. Babatido	Phoebe Joy M. Pacut-Lopez Liza May D. Nob	Cogon National High School



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PHYSICAL SCIENCE PAPER PRESENTATION – TEAM

RANK	RESEARCH PROJECT TITLE	Student Researcher	Coach	School
First	Improving Coconut Honey: Effect of Kalamansi (<i>Citrofortunella macrocarpa</i>) Extract on Sucrose Recrystallization During Cold Storage	Harris Kim B. Palasan Trisha A. Burton Nikko John A. Carcallas	Dexby P. De Guzman	El Salvador City National High School
Second	ECO-ROPE: Harnessing <i>Broussonetia papyrifera</i> Fibers for Sustainable Rope Innovation	Sherlyn B. Rom Shancy Jane C. Nuna Christian Dave V. Joloyohoy	Eden J. Laserna Rheaneza A. Loon	Cogon National High School
Third	Utilization of Paper Briquettes with Saw dust as an Alternative Energy Source	Chynna S. Rabanes Varn Leonil L. Ambos Christine Jay A. Tactay	Lynnel B. Uayan	Himaya National High School

MATHEMATICS AND COMPUTATIONAL SCIENCE PAPER PRESENTATION –INDIVIDUAL

RANK	RESEARCH PROJECT TITLE	Student Researcher	Coach	School
First	Optimizing Route and Traffic Flow in Barangay Cogon: A Strategic Plan for Livestock Auction Days	Jhairus James M. Abang	Liza May Duran-Nob	Cogon National High School
Second	From Cubes to Construction: Crafting Vertex Formulas to Update Scaffold Design	Kyrelle Lorraine C. Isidto	James Rey G. Saluderes	Molugan National High School

MATHEMATICS AND COMPUTATIONAL SCIENCE PAPER PRESENTATION – TEAM

RANK	RESEARCH PROJECT TITLE	Student Researcher	Coach	School
First	Identification of Suitable Solid Waste Collection Points through the GIS Approach in Barangay Cogon, El Salvador City	Geomark B. Pana Blare Dashed M. Decinilla Jenny B. Rabina	Liza May Duran-Nob	Cogon National High School
Second	Time Series Forecast Of Northern Mindanao Copra Prices: Assisting El Salvador City Copra Farmers Understand Latest Pricing Trends	Anna Lou D. Coringao Lorraine Mae D. Ebal Rabbiah Jannah L. Abbas	Dexy P. De Guzman	El Salvador City National High School



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Third	The Blueprints Beyond Basics: Revolutionizing Scaffold Design with Geometry	Kim Bryan C. Balasabas Glaizaryl B. Dela Torre Nobeh Love L. Bello	James Rey G. Saluderes	Molugan National High School
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ROBOTICS AND INTELLIGENT MACHINES PAPER PRESENTATION - INDIVIDUAL

RANK	RESEARCH PROJECT TITLE	Student Researcher	Coach	School
First	Automatic Wet and Dry Waste Segregation System	Aurish Joy Vecino	Nemelie P. Ral	Molugan National High School
Second	Citronella-Infused Solar Humidifier a Sustainable Solution for Fly Control	Kyla Marie T. Capili	Rheaneza A. Loon Liza May Duran-Nob	Cogon National High School

ROBOTICS AND INTELLIGENT MACHINES PAPER PRESENTATION - TEAM

RANK	RESEARCH PROJECT TITLE	Student Researcher	Coach	School
First	GAS SAFE PRO: Advanced Arduino Powered LPG Leak Detection with Real-Time Auto Shut-off System	John Clyde F. Eran Ellah R. Daluperi Diana Mae E. Castillon	Giovanni A. Magayan	Molugan National High School
Second	GENT Watering System: Development of a Plant Watering Device with Soil Moisture Detection	Nathaniel D. Paclibar Guille Vincent R. Bengar Tracey Via S. Jabla	Sherlita L. Suson	Molugan National High School
Third	Actibot: A Solar-Powered IoT Robot for Fire Detection with Real-time Emergency Alert System	Julianne P. Agcang Kristine June S. Casanos Geoffrey R. Lumahang	Sherwin D. Oranio Liza May Duran-Nob	Cogon National High School



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SCIENCE INNOVATION EXPO PAPER PRESENTATION - INDIVIDUAL

RANK	RESEARCH PROJECT TITLE	Student Researcher	Coach	School
First	<i>Colocasia esculenta</i> as a Sustainable Biomaterial: A Viable Alternative to Traditional Leather	Maricris D. Uy	Marife P. Nuñez Marites T. Jariolne	Cogon National High School
Second	Banana Fiber Bags: A Sustainable Solution To Plastic Waste	Reggie R. Salvador	Merogim P. Mugot	Hinigdaan National High School
Third	Solar-Powered Rechargeable Fan with Charging Capability and Integrated Lights	Cristy F. Boyore	Rheza Mae P. Ebal	Molugan National High School

SCIENCE INNOVATION EXPO - TEAM

RANK	RESEARCH PROJECT TITLE	Student Researcher	Coach	School
First	Banana Pseudo-Stem Reinforced Recycled Polyethylene Roof Tiles	Ralph Ivhan James O. Clarabal Mary Rose A. Mericuelo Camille G. Baguio	Dexby P. De Guzman	El Salvador City National High School
Second	Dual-Function Umbrella for Renewable Energy Resource and Sun-Rain Protection	Marlon A. Labares Jr. Carl Laurence N. Cagubcub Karen R. Capili	Clember Lei B. Abasula Sherwin D. Oranio	Cogon National High School
Third	Innovative Automation in Domestic Laundry: An Arduino Driven Clothesline Retrieval Mechanism	Zoie Rey S. Cañon Domie Jones R. Villa Jr. Dan Clifford J. Spong	Rheza Mae P. Ebal	Molugan National High School

SPECIAL AWARD FOR POSTER PRESENTATION LIFE SCIENCE - INDIVIDUAL

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			Christine Heazel O. Francisco	
Second	Black Cylinder: A House Fly (<i>Musca domestica</i>) Trap through the Fermentation Process of Banana (<i>Musa acuminata</i>) Pseudostem Extract, Color Psychology in Entymology, and Structural Design of the Confinement	Jorish M. Bungabong	Christian Delle C. Ragmac	Kalabaylabay Integrated School

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First	RootBrew: Utilizing of <i>Cocos nucifera</i> Root as Anti-Inflammatory for Alleviating Osteoarthritis and Rheumatoid Arthritis	Zyhra Jane R. Esperanza Hanah Jean L. Responsible Andry James C. Sabella	Phoebe Joy M. Pacut-Lopez Ma. Cecilia U. Obligado	Cogon National High School
Second	Cocopeat as an Alternative Pot Material: A Study on Root Development and Growth Rate	Kent Joshua L. Pahilan Kerby F. Nazareno John Kyle B. Lauron	Jessica Micabalo	Molugan National High School
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Second	Sulfite-steered Fermentation of Pineapple (<i>Ananas comosus</i>) Peel Wastes by <i>Saccharomyces cerevisiae</i> : Sustainable Additive in Liquid Laundry Detergent	Mil Antoneth C. Paderog Evanise Seann G. Gule Cety V. Baguio	Dexby P. De Guzman	El Salvador City National High School
Third	Exploring the Potential of Cogon (<i>Imperata cylindrica</i>) Grass as a Decorative Element	Kezia E. Posas Racel Jay M. Lozano JM C. Legaspi	Ria Lou L. Malto	Molugan National High School

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Third	GENT Watering System: Development of a Plant Watering Device with Soil Moisture Detection	Nathaniel Deriada Paclibar Guille Vincent R. Bengar Tracey Via S. Jabla	Sherlita L. Suson	Molugan National High School
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3. All **first-place** winning entries in paper presentation will represent in the Regional Science and Technology Fair and are advised to submit the revised soft and hardcopies of the research papers on or before November 14, 2024.
4. This Office shall adhere to Equal Opportunity Principle (EOP) in the steps undertaken for this purpose. Hence, all decisions and actions shall be based on guidelines set forth, with no discrimination on the account of age, gender, identity, sexual orientation, civil status, disability, religion, ethnicity or political affiliation.
5. This Office directs the immediate and wide dissemination of this Memorandum.


RANDOLPH B. TORTOLA
Schools Division Superintendent
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Attach: As Stated
To be indicated in the Perpetual Index
under the following subjects:

LEARNING AREA, SCIENCE

CID/ mjac



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