



Republic of the Philippines  
**Department of Education**  
REGION VII - CENTRAL VISAYAS  
Schools Division of Bohol

Office of the Schools Division  
Superintendent

**DIVISION MEMORANDUM**  
No. **0507** s. 2023

November 16, 2023

**FINALISTS TO THE REGIONAL SCIENCE AND TECHNOLOGY FAIR 2023**

TO: ASDS  
Chiefs CID and SGOD  
Education Program Supervisors  
Public Schools District Supervisors / OIC PSDS  
Elementary and Secondary School Heads Public and Private  
All Others Concerned

1. DepEd Bohol through the Curriculum Implementation Division announces the top ten (10) finalists to the **Regional Science and Technology Fair to be held on November 27-29, 2023, at Ecotech, Lahug, Cebu City through attached RM 879, s. 2023 with this year's theme "Rebuilding Resilient Communities: Embracing Science and Technology for a Sustainable Future".**
2. Above-mentioned regional memorandum also contains the guidelines and instructions about the competition. All concerned coaches of the different teams are required to ensure every necessary preparations are in place before departing to Cebu on the 27<sup>th</sup> of November 2023.
3. Also attached is the list of the top five (5) winners of the Division level Science and Technology Fair (DSTF) in different contest categories.
4. **The registration fee of Php 3,500.00 of each participant to cover food and accommodation as well as travel and other incidental expenses shall be charged to School/Division MOOE, PTA Fund, SEF, and other fund sources. Likewise, travel and other incidental expenses of the coaches, learners, Mr. Ruben Impang and Mr Lenjun Boiser who managed the 30-second shout out video held last November 16, 2023 at Plaza Rizal, Tagbilaran City shall also be charged to the same available fund sources enumerated above subject to the usual government accounting and auditing rules and regulations.**
5. **This memorandum also serves as TRAVEL ORDER.**
6. Immediate and wide dissemination of this memorandum is directed.

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**EVANGEL M. LUMINARIAS PhD, CESO-V**  
Schools Division Superintendent

EML/ASDS/CID/CMR/GTC



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**DIVISION SCIENCE AND TECHNOLOGY FAIR 2023  
BOARD OF JUDGES - INDIVIDUAL SCORE SHEET**

**LIFE SCIENCE – INDIVIDUAL CATEGORY**

#	SCHOOL/ DISTRICT	RESEARCH PROJECT TITLE	RANK
1	Gov. Jacinto Borja National HS/Loon North	Banana Peel ( <i>Musa paradisiaca</i> L. ) as Ingredients in Making Cookies	5 <sup>TH</sup>
2	San Pascual National Agricultural HS/Ubay	Carbonized Rice Hull as Bio-Molluscicidal Agent in the Rice Field	8 <sup>TH</sup>
3	Calape National HS/Calape	Fish Blood Meal Organic Fertilizer Application on <i>Vigna radiata</i>	4 <sup>TH</sup>
4	Ubay National Science HS/Ubay	Identifying the Salt Concentration of Seawater on the Coast of Achila, Guintaboan, Sinandigan, Ubay Bohol	---
5	Dusita HS/Sierra Bullones	Malitban Fertilizer from Malunggay Leaves, Alugbati Leaves and Banana Peelings	1 <sup>ST</sup>
6	Mahayag National HS/San Miguel	Chapane as an alternative Liquid Fertilizer	6 <sup>TH</sup>
7	Faraon National HS/Jagna	The Potency of <i>Barringtonia Asiatica</i> and <i>Cymbopogon Nardus</i> as Natural Dog Flea Repellant	3 <sup>RD</sup>
8	Cambuyo HS/Garcia Hernandez	P-Bag Rice Weevil Repellent	7 <sup>TH</sup>
9	Lourdes National HS/Panglao	Bioacaricidal Potentials of Soursop ( <i>Annona muricata</i> ) Leaf Extract Against Brown Dog Ticks ( <i>Rhipicephalus sanguineus</i> )	2 <sup>ND</sup>



**DIVISION SCIENCE AND TECHNOLOGY FAIR 2023  
BOARD OF JUDGES - INDIVIDUAL SCORE SHEET**

**LIFE SCIENCE – TEAM CATEGORY**

#	SCHOOL/ DISTRICT	RESEARCH PROJECT TITLE	RANK
1	Inabanga HS/Inabanga North	Antibacterial Properties of <i>Scleria Scrobiculata</i>	2 <sup>ND</sup>
2	San Jose National HS/Talibon	Larvicidal Effects of Madre de Cacao ( <i>Gliricidia Sepium</i> ) Leaves and Black Pepper ( <i>Piper nigrum</i> ) Extract Against Mosquitoes	6 <sup>TH</sup>
3	Bantolinao NHS/Antequera	Project WLAS: Chicken Eggshell as an Alternative Toothpaste for Dental Health	5 <sup>TH</sup>
4	Dusita HS/Sierra Bullones	EggCoPay: Optimizing Egg Yield in Philippine Leghorn Chickens ( <i>Gallus gallus domesticus</i> ) using Eggshells, Corn ( <i>Zea mays</i> ) bran, and Papaya ( <i>Carica papaya</i> ), as Feed Additives	1 <sup>ST</sup>
5	Ubay National Science HS/Ubay	Mahogany and Coconut Sawdust for Productive Oyster Mushroom ( <i>Pleurotus Ostreatus</i> ) Growing	3 <sup>RD</sup>
6	Gov. Jacinto Borja NHS/Loon North	Papaya Fruit ( <i>Carica papaya</i> ) as Ingredient in Making Kropok	8 <sup>TH</sup>
7	Valencia Technical Vocational School/Valencia	<i>Eucheuma cottonii</i> : An Emerging Alternative Flour with Versatile Culinary Applications	4 <sup>TH</sup>
8	Lonoy Heroes Memorial HS/Jagna	CocoMusco: A Natural Insect Attractant	7 <sup>TH</sup>
9	Lourdes NHS/Panglao	Acaricidal Effect of Cassava ( <i>Manihot esculenta</i> ) Leaf's Extract on Dog Ticks ( <i>Rhipicephalus sanguineus</i> )	4 <sup>TH</sup>



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**PHYSICAL SCIENCE – INDIVIDUAL CATEGORY**

#	SCHOOL/ DISTRICT	RESEARCH PROJECT TITLE	RANK
1	Ubay National Science HS/Ubay	Microwave Exposure on the Growth of Lettuce ( <i>Lactuca sativa</i> ) in a Hydroponic Vegetation	2 <sup>ND</sup>
2	Calape National HS/Calape	Generating Electricity from Human Urine through Microbial Fuel Cell	1 <sup>ST</sup>
3	Sierra Bullones Technical Vocational HS/Sierra Bullones	MerbeThread: The Transformation of the Fan Palm Tree into Thread	3 <sup>RD</sup>
4	Inabanga HS/Inabanga North	Safety Assessment of Water Kefir-Like Beverage for Consumption	8 <sup>TH</sup>
5	Badiang National HS/Anda	Waste Paper and Pseudo Stem to Paper Canvas, Egg Tray and Pseudo-Paper Bag	5 <sup>TH</sup>
6	Congressman Pablo Malasarte National HS/Balilihan	Wooshilizer: <i>Gmelina arborea</i> wood ash as effective fertilizer for pechay ( <i>Brassica rapa</i> ) growth.	7 <sup>TH</sup>
7	Bugang National HS/San Miguel	Potential of Annatto ( <i>Bixa Orellana</i> ) as an Alternative and Innovative Paint for Arts	9 <sup>TH</sup>
8	Lourdes National HS/Panglao	Bin-ray Discs as alternative Solar Panel	4 <sup>TH</sup>
9	Camaya-an National HS/Loboc	Kapajas ( <i>Carica Papaya</i> ) Peel as Natural Floor wax	9 <sup>TH</sup>
10	Ubay National Science HS, Ubay 1	Identifying the Salt Concentration of Sea water on the Coast of Achila, Guintabonan, Sinandigan, Ubay, Bohol	6 <sup>th</sup>



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**PHYSICAL SCIENCE – TEAM CATEGORY**

#	SCHOOL/ DISTRICT	RESEARCH PROJECT TITLE	RANK
1	San Jose National HS/Talibon	Arduino-Based Gas Leakage Detector with Automatic Exhaust Fan and Short Messaging Service (SMS) Alert	2 <sup>nd</sup>
2	Ubay National Science HS, Ubay 1	Banana Stem Fiber (Saba Banana) as an Alternative Material for Grocery Paper Bags	3 <sup>rd</sup>
3	Calape National HS/Calape	Biofiltration: Cocos Nucifera Biomaterials for Enhanced Filtration of Saline Waters in Agriculture	6 <sup>th</sup>
4	Guinsularan National HS/Duero	Spontaneity Fuel-free (SFF) Water Pump	8 <sup>th</sup>
5	Sandingan National HS/Loon North	Proposed Rainwater Collector and Filtration System	7 <sup>th</sup>
6	Inabanga HS/Inabanga North	Cocos nucifera L.: Sugar Production	4 <sup>th</sup>
7	Sierra Bullones Technical Vocational HS/Sierra Bullones	JKG's Plastic & Bamboo-based Paper	5 <sup>th</sup>
8	San Roque National HS/Albur	EnviNa: Banana Pseudo-stem (Musa acuminata) as an Alternative Paper and Multi-Purpose Material	1 <sup>st</sup>
9	Candijay Municipal HS/Candijay	Goldern Grain Board: A Sustainable Approach to Chipboard Crafting	7 <sup>th</sup>



**DIVISION SCIENCE AND TECHNOLOGY FAIR 2023  
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**ROBOTICS AND INTELLIGENT MACHINES – INDIVIDUAL CATEGORY**

#	SCHOOL/ DISTRICT	RESEARCH PROJECT TITLE	RANK
1	Tubigon West Central HS/Tubigon West	Project GUARDINO: The SMART Garden	1st



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**ROBOTICS AND INTELLIGENT MACHINES – TEAM CATEGORY**

#	SCHOOL/ DISTRICT	RESEARCH PROJECT TITLE	RANK
1	Candijay Municipal HS/Candijay	CIS-TEM Project: Coordinated Integration of Sorting, Tracking and Efficient Management in Automated Package Delivery	1 <sup>st</sup>
2	Badiang National HS/Anda	SMART Security Alarm using Arduino Uno with PIR Motion Sensor and GSM SIM800L Module	3 <sup>rd</sup>
3	Tabalong National HS/Dauis	Automated Pick and Place Robotic Arm and Conveyor Aid for Mass Production (Project APPRACAMP)	4 <sup>th</sup>
4	Dimiao National HS/Dimiao	BANTAY-AMBAK: A Truancy Detection Device	2 <sup>nd</sup>



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**COMPUTATIONAL SCIENCE – INDIVIDUAL CATEGORY**

#	SCHOOL/ DISTRICT	RESEARCH PROJECT TITLE	RANK
1	Calape National HS/Calape	Enhancing Vector Kinematics: Sumoda's Method for Convenient Resultant Displacement Calculation	4 <sup>th</sup>
2	Inabanga HS/Inabanga North	Development of an Alternative Process in Solving F-Test	3 <sup>rd</sup>
3	Garcia Hernandez HS/Garcia Hernandez	Shortcut Formula: Area of Shaded Region of Circumscribed Circle in a Regular Octagon	5 <sup>th</sup>
4	Lourdes National HS/Panglao	Illustrating Lettuce Production through Leontief Input-Output Model	2 <sup>nd</sup>
5	Ubay National Science HS/Ubay	Programming Applications of the Sucobril Formula: Date-to-Date Calculator Solving the exact weekday and Total Number of Days between two given dates	1 <sup>st</sup>





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**COMPUTATIONAL SCIENCE – TEAM CATEGORY**

#	SCHOOL/ DISTRICT	RESEARCH PROJECT TITLE	RANK
1	Candijay National HS/Candijay	Optimizing the Performance of Solar Panels using Mathematical Modelling	1 <sup>st</sup>
2	Calape National HS/Calape	A Visual Guide to Solving Fractions: Introducing the Decritozev Method	6 <sup>th</sup>
3	San Miguel Technical Vocational School/San Miguel	Hypotenuse Calculation when two sides are increased by N times	4 <sup>th</sup>
4	San Jose National HS/Talibon	Application of Ultrasonic Sensor and Arduino Programming Technology on Automatic Classroom Social Distancing Detector Device	2 <sup>nd</sup>
5	Garcia Hernandez HS/Garcia Hernandez	Shortcut Formula: Area of Shaded Region of Circumscribed Circle in a regular Decagon	5 <sup>th</sup>
6	Lorudes National HS/Panglao	Analyzing the Dynamics of Bremia Lactucae in Lettuce Crops through the SUQC Model	3 <sup>rd</sup>



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**SIBOL SIP ELEMENTARY - TEAM CATEGORY**

#	SCHOOL/ DISTRICT	RESEARCH PROJECT TITLE	RANK
1	Garcia Hernandez Central ES/Garcia Hernadnez	Paper Fire Ball as an Alternative Fuel Source	9 <sup>TH</sup>
2	Ubay Central Elementary School/Ubay	AHL Nutri Flour	1 <sup>ST</sup>
3	Cortes Central ES/Cortes	Oregano Oil as Mosquito Repellent	7 <sup>TH</sup>
4	Calape Central ES/Calape	GarLe Extract as Cockroach Killer Spray	6 <sup>TH</sup>
5	Bacong ES/Anda	CLEANEX All-purpose Cleaner	2 <sup>ND</sup>
6	Sagasa ES/Balilihan	Pomelo Citrus Maxima Extract as an Alternative Dishwashing Liquid	8 <sup>TH</sup>
7	Buenavista ES/Ubay	Kalegar Extracts	3 <sup>RD</sup>
8	Loboc Central ES/Loboc	Revolutionizing Renewable Energy: The Hydro-Powered Electric Generator Project	4 <sup>TH</sup>
9	San Miguel Central ES/San Miguel	The Effect of ViPaGL Pesticide Against Dog Flea and Ticks	5 <sup>TH</sup>



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**SIYENSIKULA**

#	SCHOOL/ DISTRICT	VIDEO TITLE	RANK
1	Haguilanan HS/Catigbian		9 <sup>TH</sup>
2	Lourdes National HS/Panglao		2 <sup>ND</sup>
3	Calape National HS/Calape		1 <sup>ST</sup>
4	San Jose National HS/Talibon II		3 <sup>RD</sup>
5	Pres. CPG Memorial HS/Talibon I		7 <sup>TH</sup>
6	Pres. CPG Technical Vocational School of Fisheries and Arts/Bien Unido		6 <sup>TH</sup>
7	Bilar National HS/Bilar		4 <sup>TH</sup>
8	Guinacot National HS/Guindulman		5 <sup>TH</sup>
9	Dimiao National HS/Dimiao		8 <sup>TH</sup>



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**DIGITURO**

#	SCHOOL/ DISTRICT	VIDEO TITLE	RANK
1	Calape National HS/Calape		3 <sup>RD</sup>
2	Lourdes National HS/Panglao		1 <sup>ST</sup>
3	Sikatuna NHS/Sikatuna		5 <sup>TH</sup>
4	Ubay National Science HS/Ubay I		2 <sup>ND</sup>
5	Ubojan Integrated School/Sagbayan		7 <sup>TH</sup>
6	Trinidad I Cetral ES/Trinidad I		9 <sup>TH</sup>
7	Dimiao National HS/Dimiao		4 <sup>TH</sup>
8	Pilar Technical Vocational HS/Pilar		6 <sup>TH</sup>
9	Bato ES/Guindulman		8 <sup>TH</sup>



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**INNOVATION EXPO - INDIVIDUAL**

#	SCHOOL/ DISTRICT	RESEARCH PROJECT TITLE	RANK
1	Alicia Technical Vocational HS/Alicia	Roller-guided Blackboard Eraser	3 <sup>rd</sup>
2	Sandingan National HS/Loon North	Aquaponics: An Innovation for Sustainable Farming System in Sandingan Island, Loon, Bohol	4 <sup>th</sup>
3	San Miguel Technical Vocational School/San Miguel	EnergyGuard: Smart Automation for Electricity Management	1 <sup>st</sup>
4	Ubay National Science HS/Ubay	6 Lamp: Saline-Powered Lamp	2 <sup>nd</sup>



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**INNOVATION EXPO - TEAM**

#	SCHOOL/ DISTRICT	RESEARCH PROJECT TITLE	RA
1	Sierra Bullones Technical Vocational HS/Sierra Bullones	ECOFLARE: A Portable Solar Powered Rice Hull Burner	3
2	Tabuan National HS/Garcia Hernandez	Fruitsarap Ketchup: A Taste of Nature	7
3	Guinacot National HS/Guindulman	Electric Current Generator Using Steam Pressure and Solar Energy with Cow dung Fuel Pucks	5
4	San Jose National HS/Talibon II	The Workability of Aqua Robot with Monitoring System for Water Garbage Collection	2
5	San Miguel Technical Vocational School/San Miguel	PETARFAN: Programmed Environment and Temperature-Adaptive Regulated Fan	6
6	Tabalong National HS/Panglao	PROJECT MAIA: An Automated Self Propagating Indoor Seddling Box	6
7	Sandingan National HS/Loon North	Innovative Hurdy-Gurdy Water Wheel with Aero-Solar Backup Power as Potential Energy Generating System in Sandingan Island, Loon, Bohol	1
8	Japer MHS	Project: SPARCLE	4