



Republic of the Philippines  
Department of Education  
NATIONAL CAPITAL REGION  
SCHOOLS DIVISION OFFICE OF MUNTINLUPA CITY

Office of the Schools Division  
Superintendent

DEC 21 2023

MEMORANDUM  
No. 281, s. 2023

**WINNERS OF THE 2023 REGIONAL SCIENCE and TECHNOLOGY FAIR (RSTF)**

To: OIC – Assistant Schools Division Superintendent/  
Chief Education Supervisor, School Governance and Operations Division  
Chief Education Supervisor, Curriculum Implementation Division  
Public Elementary and Secondary School Heads/OICs  
All Others Concerned

1. This Office announces the winners of the 2023 Regional Science and Technology Fair (RSTF) held on December 1-2, 2023 at Muntinlupa National High School, informing teachers in the field on the above-captioned subject, the contents of which are self-explanatory, for information and appropriate action.
2. Attached are the list of awardees.
3. Immediate and wide dissemination of this Memorandum is desired.

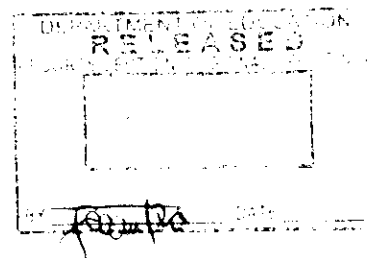
**EVANGELINE P. LADINES CESO V**  
Schools Division Superintendent

Encl: As stated  
Reference: Gmail  
To be indicated in the Perpetual Index  
under the following subjects:

TEACHERS      LEARNERS      PROGRAMS      LEARNING DELIVERY



  
Republic of the Philippines  
**Department of Education**  
NATIONAL CAPITAL REGION



**REGIONAL MEMORANDUM**

ORD-2023-

**TO :** **SCHOOLS DIVISION SUPERINTENDENTS**

**SUBJECT :** **Winners of the 2023 Regional Science and Technology Fair (RSTF)**

**DATE :** December 11, 2023

The Department of Education-National Capital Region (DepEd-NCR) through the Curriculum and Learning Management Division (CLMD) announces the winners of the 2023 Regional Science and Technology Fair (RSTF) held on December 1-2, 2023 at Muntinlupa National High School, Division of Muntinlupa City.

This Office recognizes the support of Muntinlupa City, led by Mayor Rozzano Rufino "Raffy" B. Biazon, and the Schools Division Office of Muntinlupa City, under the leadership of Dr. Evangeline P. Ladines, Schools Division Superintendent, for graciously hosting the 2023 RSTF. We also express our gratitude to Our Lady of Lourdes Hospital, particularly President Paul Richard Camangian, for their support throughout the event.

Special thanks go to the NCR Schools Division Superintendents, Assistant Schools Division Superintendents, Curriculum Implementation Division Chiefs, Mathematics and Science Division Education Program Supervisors, NCR Research Advisers Association, advisers, and trainers who played pivotal roles in ensuring the success of the 2023 RSTF.

The list of awardees is enclosed herewith for your reference:

- Enclosure 1: Special Awards
- Enclosure 2: Finalists
- Enclosure 3: Top 5 Winners
- Enclosure 4: Lourdes Choice Award
- Enclosure 5: NSTF Qualifiers



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
Republic of the Philippines  
**Department of Education**  
NATIONAL CAPITAL REGION

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The first-place winners in Life Science, Physical Science, Robotics and Intelligent Machine, Mathematics and Computational Sciences and Science Innovation Expo both individual and team category will be the NCR's NSTF Qualifiers.

Immediate dissemination of this Memorandum is desired

**JOCELYN DR ANDAYA**

Director IV 

Incls:

As stated

Reference

DepEd Order 21.s.2019, DM 068.s.20223

To be indicated in the Perpetual Index

under the following subjects:

CELEBRATIONS AND FESTIVALS    CONTESTS    LEARNING AREA: Science    SCHOOLS  
STUDENTS



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## Enclosure 1 Special Awards

### A. Shoutout

Place	SDO	Science and Math Supervisors	Superintendent
First	Quezon City	Dr. Joel P. Feliciano and Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V
Second	Valenzuela City	Marilyn Soriano and Maria Lea Q. Prondo	Dr. Noel Bagano
Third	Manila	Remyllinda T. Soriano and Merie Gerlie V. Capiral	Dr. Rita Riddle, CESO V
Fourth	Pasig City	Dr. Teresita P. Tagulao and Liza A. Alvarez	Mrs. Sheryll T. Gayola, CESO V
Fifth	Muntinlupa City	Lambert Quesada and Armida Oblinada	Dr. Evangeline Ladines CESO V

### B. Poster Making

Place	SDO	Science and Math Supervisors	Superintendent
First	Las Piñas City	Gina Agutiez and Laprizal Castueras	Dr. Loreta B. Torrecampo, CESO V
Second	Makati City	Michael Lee and Hernan Apurada	Ms. Ma. Evalou Concepcion A. Agustin, CESO V
Third	Muntinlupa City	Lambert Quesada and Armida Oblinada	Dr. Evangeline Ladines CESO V
Fourth	Caloocan City	Jennifer Mondoy and Eriterio Macarubbo	Dr. Jenilyn Rose B. Corpuz
Fifth	Paranaque City	Erma Cunanan and Corazon Javier	Nerissa L. Losaria, CESO V

### C. Display Board

Display Board: Life Science Individual								
Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Quezon City	Josiah Christopher Q. Cruz	Quezon City Science High School	Anticancer Potential Of Molave ( <i>Vitex Parviflora</i> Juss.) Crude Leaf Ethanolic Extract Against Lung Cancer Cells (A549 And GI.01)	Mr. Earl Francis C. Merlles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V

Second	Calococan City	Jasrel Philippe T. Bulilan	Calococan City Science High School	The Larvicidal Activity Of Ethanolic Extracts Of Water Hyacinth (Eichhornia Crassipes) Leaves Against Aedes Aegypti	Suzzeth U. Dizon	Phillip A. Villamor	Dr. Emterto D. Macarubbo	Dr. Jenilyn Rose B. Corpuz
Third	Pasig City	Joanna Christi V. Jornales	Pasig City Science High School	Incorporating <i>Cymbopogon</i> Sp. and <i>Ocimum basilicum</i> Extracts In Creating Antimicrobial Coating For Cotton Cloth	Engr. Lady Kyrnia D. Garado	Charlie O. Fababaer	Ms. Liza A. Alvarez	Mrs. Sheryll T. Gayola, CESO V
Fourth	Muntinlupa City	Angela Louise D. Marcelo	Muntinlupa Science High School	Spinach (Spinacia Oleracea), Cabbage (Brassica Oleracea), And Arugula (Erica Glomiflora) Extracts On The Blood Clotting Rate Of Mice (Mus Musculus)	Mark Archei O. Javier	Florante C. Marmeto	Dr. Arnida S. Oblinada	Dr. Evangelina Ladines CESO V
Fifth	Navotas City	Diana Rose D. Mucho	Navotas National Science High School	Moringa Oleifera Leaf Extract Decreases Caffeine-Induced Insomnia In Sleep-Wake Behaviors Of Drosophila Melanogaster	Joseph Gabriel G. Cruz	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Meliton P. Zurbarro

**Display Board: Life Science Team**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Caloocan City	Dien Fabrice D. Estigoy, Krista Rey V. Balintec, Janelle Andrea B. Rodriguez	Caloocan National Science And Technology High School	Atomic Biosorption Potency Of <i>Rhizodolium</i> Sp. (Cladophorales, Chlorophyta) And Calcium Carbonate (CaCO <sub>3</sub> ) From Eggshell Wastes On Copper II (Cu <sup>+2</sup> )	Corazon Trinidad A. Bautista	Dr. Priscila T. Catanauan	Dr. Emiterio D. Macarubbo	Dr. Jenilyn Rose B. Corpuz
Second	Paranaque City	Sophia Blessie D. Mangao, Josiah Hendrik B. Mascarina	Paranaque Science High School	Antifungal Activity of <i>Malunggay</i> ( <i>Moringa Oleifera</i> ) Extract Against <i>Aspergillus Fumigatus</i>	Ma. Theresa G. Baita	Ruel A. Grafil	Dr. Corazon A. Javier	Dr. Nerissa L. Losarta
Third	Las Pinas City	Jill Adrienne M. Bonsol, Jana Loreal L. Orenday, Chelsea Lyanne N. Shin	Las Piñas City National Science High School	An Assessment Of Water Quality Of Pinza Dam As A Potential Use For Irrigation	Shiela Linn D. Banate	Eleanor V. Honrales	Ms. Lapidzal P. Castueras	Dr. Loreta B. Torrecampo, Ceso V
Fourth	Pasig City	Princess Chloe R. Bonifacio, Shilo Havanalyn P. Campomanes, Vince Danielle R. Mansueto	Pasig City Science High School	Enhanced Antibacterial Activity of Wound Dressing Using Biosynthesized Gold And Copper Nanoparticles	Engr. Lady Kymnia D. Garado	Charlie O. Fabbaer	Ms. Liza A. Alvarez	Mrs. Sheryll T. Gayola, CESO V
Fifth	Makati City	John Elijah V. Banaag, Julienne Marie S. Galdó, Franchezka Nicole Annunciacion	San Isidro National High School	Acceptability Of Coconut Flour As A Healthy Substitute To All-Purpose Flour In Banana Bread	Luningning Dela Cruz	Noly B. Francisco	Hernan L. Apurada	Ms. Ma. Evelyn Concepcion A. Agustin, CESO V

**Display Board: Physical Science Individual**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Quezon City	Kyle Irish Mae T. Pleyto	Quezon City Science High School	Revitalizing Carbonates: An Innovative Solution To Recycling Concrete Waste Using Irradiated Concrete Into Calcium Hydroxide-Based (Ca(OH) <sub>2</sub> ) Carbon Capturing Technology	Ms. Genevieve C. Vasquez	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V
Second	Las Pinas City	Rafael P. Quiling III	Las Pinas National Science High School- Senior High School	The Utilization Of Xanthan Gum Polysaccharide And Cooking Oil Waste In Las Piñas To Create An Abrasion Resistant Rubber Mat	Phyllina Beatriz S. De Guzman, RMT	Eleanor V. Honrales	Ms. Laprizal P. Castueras	Dr. Loreta B. Torrecampo
Third	Muntinlupa City	Zachary D. Bustos	Muntinlupa Science High School	Evaporative Composite Cooling Blanket From Abaca (Musa Textilis) Fibers And Rice Hull (Oryza Sativa) For Post-Harvest Storage Of Fresh Tomatoes (Solanum Lycopersicum)	Engr. Chandler Erickson A. Cachuela	Florante C. Marmeto	Dr. Arnida S. Oblinada	Dr. Evangeline P. Ladines

Fourth	Navotas City	Jashley Shannel Asilo	Navotas National Science High School	Peanut ( <i>Arachis Hypogaea L.</i> ) Shell Decreases Beta-Lactam Amoxicillin Concentration In Water.	Don King O. Evangalista	Russell P. Samson	Ms. Jocelyn R. Aguilo	Dr. Melton P. Zarbaro
Fifth	Makati City	Lean Chad A. Masungsong	Maximo Estrella Senior High School	Utilization Of Terminatia Catappa (Talisay) Leaves As A Coagulant In The Initial Treatment Of Surface Water In The Pasig River	Charry Vida R. Cervantes	Edwin I. Salvicio	Mr. Herman L. Apurada	Ms. Ma. Evalou Concepcion A. Agustin, CESO V

**Display Board: Physical Science Team**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Muntinlupa City	Meria Annika I R. Espinosa, Clarisse C. Fernandez, Mari Dominique A. Bernandez	Muntinlupa National High School	Utilization Of Mangga ( <i>Mangifera Indica</i> ) Leaves For Paper Production	Mr. Earl Francis C. Merilles	Dr. Antonio B. Rocha	Dr. Arnida S. Oblinada	Dr. Evangeline Ladines CESO V
Second	Quezon City	Anne Gabrielle M. Rosaldo, Maiaa Mercurie G. Marcelo, Wyatt Alfonso M. De Belen	Quezon City Science High School	Classification Of Electron Beam- Irradiated Papaya ( <i>Carica papaya</i> ) Using Neural Networks	Mr. Earl Francis C. Merilles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Secilla, CESO V
Third	Taguig City and Pateros	Vince Kristan L. Arcilla, Zandre C. Managbarrag, Aprille Rowena F. Simora	Senalor Renato "Compañero" Cayetano Memorial Science And	Adsorption Of Hexavalent Chromium (Cr (VI)) In Aqueous Solution Using	Jimnaira U. Abanto	Quinn Norman O. Arreza	Dr. Mariyic T. Almo	Dr. Alejandro G. Ibañez

			Technology High School	Surface Functionalized Chitosan-Coated Cogon Grass (Imperata Cylindrica L.) Fiber				
Fourth	Malabon City	Yuanne Michaela F. Armbal, Marrelle Angel B. Lobrinio, Asiah Mae T. Montemor	Malabon City National Science And Mathematics High School	The Utilization Of Ethanolic Leaves Extract Of Musa Acuminata X Balisiana Colla As A Fire-Retardant Enamel Paint Additive	Mylene J. Aguinaldo	Teresita C. Dalmacio	Dr. Manolo C. Davantes Jr. Ph.D	Dr. Cecille G. Carandang, CESO VI
Fifth	Navotas City	Maria Janella G. Rojo, Lincoln Xeree B. Traquina, Cassandra A. Ingeniero	Navotas National Science High School	S.A.G.E.: Sustainable Dye-Adsorbent For Greener Environment-- Combined Paper Wastes And Commercial Coconut Activated Carbon (Ac) As An Adsorbent Paper Matrix For Methylene Blue And Aniline (Jobs) Dyes	Don King O. Evangelista	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Melton P. Zurbano

**Display Board: Robotics and Intelligent Machine Individual**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Navotas City	Francis James A. Romidel	Navotas National	Rapid! Raspberry Pi For Aquatic Invasive Plant	Karl Ernie D. Arambulo	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Melton P. Zurbano

			Science High School	Detection And Alert System Via Internet Of Things (Iot) And Yolov5				
Second	Paranaque City	Alfonso Jose N. Cirio	Paranaque Science High School	Automatic Pedestrian Accident Detector (Autopad): An Iot-Based Pocket-Sized Device For Instant Alert On Possible Pedestrian Accidents	Jayson R. Triampo	Ruel A. Grafi	Dr. Corazon A. Javier	Dr. Nerissa L. Losaria
Third	Pasig City	Adelle Maxime B. Mendoza	Rizal High School	Seismosafe-E: Seismic Event Intensity Sensor With Monitoring Operation System Using Arduino For Effective Evacuation	Eileen L. Del Rosario	Mr. Richard T. Santos	Ms. Liza A. Alvarez	Mrs. Sheryll T. Gayola, CESO V
Fourth	Muntinlupa City	Benedict John R. Caperocho	Muntinlupa Science High School	A-Cassie: Aeroponics With Cooling And Automatic	Engr. Chandler Erickson A. Cachuela	Florante C. Marneto	Dr. Armida S. Obinada	Dr. Evangeline Ladines CESO V

			Synchronizing System For Indoor Environments Using Arduino					
Fifth	Manila	Aliyah Kristine Q. Enriquez	Cayetano Arellano High School	Project Leaktas: Arduino-Based Environmental Chemical Leak Detector	Virgilio B. Escasinas Jr.	John Butch P. Locara	Ms. Merie Gerlie V. Capiral	Dr. Rita E. Riddle

**Display Board: Robotics and Intelligent Machine Team**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Paranaque City	Paul Ayden M. Beloy, Jarina Valerie S. Villarta	Paranaque Science High School	An Analysis Of Lettuce (Lactuca Sativa) After Being Grown In An Iot-Based Aeroponics System In Comparison To A Soil-Grown System	Jayson R. Tiempo	Ruel A. Grafil	Dr. Corazon A. Javier	Dr. Nerissa L. Losaria
Second	Quezon City	Klara Cheska D. David Sofia Kristinne Ysabel S. Soledad, Selwyn D. Braacamonte	Quezon City Science High School	S.A.R.H.: A Soft Actuated Robotic Hand for Range of Motion Therapy on the Rehabilitation of Hand Function for Monoparesis Patients	Ms. Genevieve C. Vasquez	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Scilla, CESO V
Third	Caloocan City	Zakura Marie Alisla, Krizzia Mae M. Moreno,	Cielito Zamora Senior High School	Automated Cargo Claw And Rail System (Acers) In Container		Dr. Alvin D. Angus	Dr. Emilito D. Macarubbo	Dr. Jenilyn Rose B. Corpuz, Ceso V

		Jennylyn A. Rebanacos		Transportation In Seaports				
Fourth	Malabon City	Alyanna C. Bunag, Kent Louis V. Ganiron, Kaye-Em Redarmy R. Mancilla	Malabon National High School	FloodIn!: An IoT-Based Flood Monitoring System Using Arduino Mega	Jhon Ivan R. De Jesus	Olivia Q. Martin	Dr. Manolo C. Davantes Jr.	Dr. Cecille G. Carandang
Fifth	Las Pinas City	Lhyndelle Angela G. Ramos, Lovelia L. Gaerlan, Shania Shayne P. Martinez	Las Pinas City National Science High School	Trashure!: Reverse Vending Machine Converting Plastic Bottles Into Pointing System For Pre-paid Load With IoT Database	Lyneth Z. Cabria	Eleanor V. Honrales	Ms. Laprizal Castueras	Dr. Loreta B. Torrecampo, Ceso V

**Display Board: Mathematics and Computational Sciences Individual**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Math Supervisor	Schools Division Superintendent
First	Las Pinas City	Joshua R. Sacedon	Las Piñas City National Science High School	Driving The Future: Cost-Efficiency Comparison Between Traditional And Modern Puvs Through Algebraic Equations	Warlita C. Arzaga	Eleanor V. Honrales	Gina L. Aguitiz	Dr. Loreta B. Torrecampo
Second	Pasay City	Denmark Jan T. Dapul	Pasay City South High School	Hands: A Transcription Tool For Basic Filipino Sign Language Using Hand Analytic Network Detection System (Image Processing)	Glenn Arwin M. Bristol	Emilia L. Tolentino	Mr. Rogelio S. Junio	Dr. Joel T. Torrecampo

Third	Valenzuela City	Leandro S. Asunan	Valenzuela City School Of Mathematics And Science	Geometry Of Taxicab Parabolas: Identifying The Relationship Between The Latus Rectum-Focal Distance Ratio And Directrix In Non-Slant Taxicab Parabolas	Dioscorro G. Lumogdang III	Jaime S. De Vera Jr.	Ms. Marilyn B. Soriano	Dr. Noel D. Bagano
Fourth	Navotas City	Ezekiel Jay R. Mata	Navotas National Science High School	Mathematical Formulation Of Linear Attenuation Coefficient: Exploring Energy-Range Relationships	Jerome P. Padillo	Russell P. Samson	Dr. Alberto J. Tiangco	Dr. Meliton P. Zurbarano
Fifth	Muntinlupa City	James Rommel B. Guevara	Muntinlupa Science High School	A* (A-Star) Algorithm With Manhattan Distancing And Geographic Information System (Gis) To Prompt Efficient Public Commuting Routes: Muntinlupa City As The Paradigm Municipality	Geraldine S. Gonzales	Florante C. Marneto	Dr. Arnida S. Oblinada	Dr. Evangelina Ladines CESO V

**Display Board: Mathematics and Computational Sciences Team**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Math Supervisor	Schools Division Superintendent
First	Passay City	Lorraine Beatriz C. Agamata, May Reilyn S. Depaz, Althea I. Rodriguez	Passay City National Science High School	Forecasting The Monthly Farmgate Price Of Poultry Chickens Using Sarima Model	Abegail A. Villanueva	Rouell A. Santero	Mr. Rogelio S. Junio	Dr. Joel T. Torrecampo
Second	Las Pinas City	Kathrina Marie R. Ocampo, Takao John A. Dollente, Janella Erin F. Gutierrez	Las Pinas City National Science High School	Geolocation Database Forecasting For Internet Users Using Television White Space	Angelito P. Kilala	Eleanor V. Honrales	Dr. Gina L. Agutiez	Dr. Loreta B. Torrecampo
Third	Quezon City	Kirsten Geraldine C. C. Esteban, Kim D. Agot, Lozano L. Cruz, Jr.	Quezon City Science High School	A Mathematical Investigation on the Maximum Number of Intersections of k Segments Equally Dividing each Vertex Angle of a Triangle	Ms. Ailyn R. Mendez	Ms. Carolyn C. Simon	Dr. Joel P. Feliciano	Ms. Carleen S. Sedilla, CESO V
Fourth	Muntinlupa City	Thony John T. Peralta, Ralph Andre H. Halili, Kythe Xedryc R. Medina	Muntinlupa Science High School	Dijkstra'S Algorithm For Path Optimization Of Emergency Evacuation Route For Deped Instructional Buildings	Zarina T. Pabelonia	Muntinlupa Science High School	Dr. Armida S. Oblinada	Dr. Evangelina Ladines CESO V

Fifth	Valenzuela City	John Rafael S. De Dios, Ethan Samuel R. Estabillo, Zoe Gwyneth P. Sarmiento	Valenzuela City School Of Mathematics And Science	Dragon Curve: Transforming Collatz Conjecture Through Visual Coefficient Modification	Jayvee P. Orejola	Jaime S. De Vera Jr.	Ms. Marilyn B. Soriano	Dr. Noel D. Baggano
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**Display Board: Science Innovation Expo Individual**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Advisor	School Head	Science Supervisor	Schools Division Superintendent
First	Navotas City			Dasca: Enabling Connection - A Specialized Augmentative Alternative Communication (Aac) Application For Breaking Language And Speech Communication Barriers Among Filipino Citizens	Karl Erniel D. Arambulo	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Meliton P. Zurbarano
Second	Muntinlupa City	Kylie Q. Cruz	Navotas National Science High School	Production, Characterization, And Properties Of Sucker-mouth Sailfin Catfish (Pterygoplichthys Pardalis) Entrails As An Alternative Feedstock For Biodiesel Blends	Mark Archel O. Javier	Florante C. Marmeto	Dr. Armida S. Oblinada	Dr. Evangeline Ladines CESO V
Third	Manila	Maria Jarina Bien V. Calma	Victorino Mapa High School	Project Watch	Barbara V. Calma	Robert P. Velasquez	Ms. Merie Gerlie V. Capiral	Dr. Rita E. Riddle

Fourth	Las Pinas City	Glendyll R. Frias	Las Pinas City National Science High School	Project Cairfil: A Research Study And Experiment On A New Design For Air Filters And Substitute For Carbon Filters Using Pulvriized Cocos Nucifera (Cocconut) Shell Briquettes	Shiela Linn D. Banate	Eleanor V. Honrales	Ms. Laprizal P. Castueras	Dr. Loreta B. Torrecampo
Fifth	Pasig City	Tyron James D. Sister	Buting Senior High School	The Efficacy Of Buta-Buta (Excoecaria Agallocha), Dumb Cane (Dieffenbachia), And Malabar Spinach Berries (Basella Alba L.) As A Biomimetic Self-Defense Ink Spray	Ginalyn P. Bramaje	Ma Amparo G. Silvela	Ms. Liza A. Alvarez	Dr. Sheryll T. Gayola

**Display Board: Science Innovation Expo Team**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Pasig City	Angel Dennisse B. Esguerra, Marcia Ghaye A. Marcelo, Mia Ivahna C. Villafania	Pasig City Science High School	C47 AsthMask: Life Mask with Installed Inhaler For Asthmatic Patients Filtered With Taro Leaves	Engr. Lady Kymnia D. Garrado	Mr. Charlie O. Fababac	Ms. Liza A. Alvarez	Dr. Sheryll T. Gayola
Second	Paranaque City	Eulheinne A. Lopez, Anna A. Domine, Charles Christian P. Gopengco	Paranaque Science High School	Particle Board Production Using Bamboo (Bambusa Schreb), Tobacco (Nicotiana	Ma. Theresa G. Baita	Ruel A. Grafil	Dr. Corazon A. Javier	Dr. Nerissa L. Losaria

				Tabacum) Stalks, and Gimelina (Gimelina Arborea) Wood with Cement					
Third	Taguig City and Pateros	Shannen Elysse M. Puga, Anica Myiel H. Timogumog, Meleca T. Constantino	Taguig Science High School	X-Haust Scrubber: The Use Of Activated Charcoal As A Solution To Vehicle Smoke Emissions	Janeth G. Mamansag	Donald S. Bruno	Dr. Marivic T. Almo	Dr. Alejandro G. Ibañez	
Fourth	Muntinlupa City	Jillian R. Santos, Riffa Antonia D. Rasalan, Manuel Iesiah A. Ritto	Muntinlupa Science High School	Manila Clam (Venerupis Philippinarum) Shells As Fillers Or Biocomposite Denture Base Acrylic Resins	Lady Edlenil J. Tayu	Florante C. Marneto	Dr. Armida S. Obinada	Dr. Evangelina P. Ladines	
Fifth	Pasay City	Loren Jessica L. Mangahas, Sofia Ezekielle M. Caranapatana, Marc Wayne L. Clemente	Pasay City West High School	Synthesized Rigid Polyurethane Foam As Potential Headset Microphone Minimal Noise Reducer Using Coconut (Cocos Nucifera) Husk Derived Biopolyol	Ralph C. Malacad	Mr. Agapio Teodoro N. Mannaog	Dr. Maripaz T. Mendoza	Dr. Joel T. Torrecampo	

<b>Best Presenter</b>									
Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent	
Life Science Individual	Navotas City	Diana Rose D. Mucho	Navotas National Science High School	Moringa Oleifera Leaf Extract Decreases Caffeine-Induced Insomnia In Sleep-Wake Behaviors Of	Joseph Gabriel G. Cruz	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Meliton P. Zurbanano	

				Drosophila Melanogaster				
Life Science Team	Passay City	Heiza Adeth G. Banaag, Rochelle N. Terrado, Simon Gabriel Villa	Passay City National Science High School	Micropropagation Of The Endangered Philippine Teak (Tectona Philippensis) By Organogenesis Using Nodal Segments	Shannen Dorothy P. Gomez	Rouell A. Sartero	Dr. Maripaz T. Mendoza	Dr. Joel T. Torrecampo
Physical Science Individual	Paranaque City	Steffi D. Entrada	Paranaque National High School-Main	Tomato (Lycopersicon Esculentum) Lycopene Extraction With Coconut Oil As A Sun Protection Factor Enhancer In A Formulated Sunscreen Lotion	Marylene P. Salvatera	Gerry A. Lumaban	Dr. Corazon A. Javier	Dr. Nerissa L. Losaria
Physical Science Team	Taguig City and Pateros	Vince Kristian L. Arcilla, Zandre C. Managbanag, Aprille Rowena F. Simora	Senator Renato "Compañero" Cayetano Memorial Science And Technology High School	Adsorption Of Hexavalent Chromium (Cr (VI)) In Aqueous Solution Using Surface Functionalized Chitosan-Coated Cogon Grass (Imperata Cylindrica L.) Fiber	Jimnaira U. Abanto	Quinn Norman O. Arreza	Dr. Marivic T. Almo	Dr. Alejandro G. Ibañez
Robotics and Intelligent Machine Individual	Quezon City	Angelica A. Prelligera	Quezon City Science High School	Arduino-Based Autonomous Navigation To Detect Solid Metals For Ground Contamination Recovery (ANDAR)	Mr. Earl Francis C. Merlles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V
Robotics and Intelligent Machine Team	Quezon City	Ram Fonzy S. Bobis, Teodor L. Escobido, Trixie Paulyn M. Manuel	Holy Spirit National High School	Time Scheduler And Earthquake Alarm System - TSEQAS Using EV3 Module	Mr. Diosdado C. Espiritu Jr.	Dr. Arnel L. Cañero	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Cedilla, CesO V

Mathematics and Computational Sciences Individual	Muntinlupa City	James Rommel B. Guevara	Muntinlupa Science High School	A* (A-Star) Algorithm With Manhattan Distancing And Geographic Information System (Gis) To Prompt Efficient Public Commuting Routes: Muntinlupa City As The Paradigma Municipality	Geraldine S. Gonzales	Florante C. Marmeto	Dr. Armida S. Oblinada	Dr. Evangelina F. Ladines CESO V
Mathematics and Computational Sciences Team	Pasig City	Carl A. Basco, Ma. Michelle Angeline C. Sagrado	Pasig City Science High School	Trick Or Treat: Using Machine Learning With Python To Detect Scam Sms Messages	Joseph S. Lara	Charlie O. Fababaer	Dr. Teresita P. Tagulao	Mrs. Sheryll T. Gayola, CESO V
Science Innovation Expo Individual	Navotas City	Kylie Q. Cruz	Navotas National Science High School	Dasca: Enabling Connection - A Specialized Augmentative Alternative Communication (Aac) Application For Breaking Language And Speech Communication Barriers Among Filipino Citizens	Karl Erniell D. Arambulo	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Meliton P. Zurbarano
Science Innovation Expo Team	Quezon City	Mark Louis Y. Tjongoo, Fiona Margarete S. Ayeras, Lahlaine Joy M. Esparrago	Quezon City Science High School	A Solar Powered Smart Traffic Light System For Emergency Vehicles Prioritization Using AI-Enhanced Machine Learning Framework	Ms. Genevieve C. Vasquez	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V

<b>Enclosure 2 Finalist</b>								
Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	School's Division Superintendent
Life Science Individual	Caloocan City	Jasrel Philippe T. Bullian	Caloocan City Science High School	The Larvicidal Activity Of Ethanolic Extracts Of Water Hyacinth (Eichhornia Crassipes) Leaves Against Aedes Aegypti	Suzeth U. Dizon	Philip A. Villamor	Dr. Emilitio D. Macarubbo	Dr. Jenilyn Rose B. Corpuz
	Las Pinas City	Sofia Astrud P. Rogado	Las Pinas National High School-Senior High School	In Silico Analysis Of Curcuminoids And "Curcumin" Analogues As Epidermal Growth Factor Receptor (Egfr) Inhibitor: A Novel Approach For Prostate Cancer Therapy	Margian Erica S. Taguas	Ignacio L. Son, Jr.	Ms. Laprizal Castueras	Dr. Loreta B. Torrecampo
	Mandaluyong City	Shen B. Vidal	Mataas Na Paatalang Neptali A. Gonzales	Coagulation Properties Of Sweet Potato Leaves (Ipomoea Batas And Water Spinach (Ipomoea Aquatica)	Eva B. Deocareza	Dr. Corazon R. Regino	Ms. Roxane Villanueva	Dr. Aurelio G. Alfonso
	Navotas City	Diana Rose D. Mucho	Navotas National Science High School	Moringa Oleifera Leaf Extract Decreases Caffeine-Induced Insomnia In Sleep-Wake Behaviors Of	Joseph Gabriel G. Cruz	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Meliton P. Zurbanano

				Drosophila Melanogaster				
Paranaque City	Jasmin Victoria B. Bonifacio	Paranaque National High School-Main	A Comparative Study Of The Efficacy Between Rice Husk And Corn Cob As Substrates For Hydroponic Gardening	Princeville S. Lenza	Gerry A. Lumaban	Dr. Corazon A. Javier	Dr. Nerissa L. Losaria	
Quezon City	Margalo Amros V. Cerro	Ramon Magsaysay (Cubao) High School	Biomass And Carbon Stock Assessment Of Trees In Bernardo Park, Kamuning, Quezon City, Philippines	Jeanne Marie Gabrielle C. Tenchavez	Arlana A. Arbolada	Dr. Maria Pilar O. Capalongan	Carleen S. Sedilla	
Taguig City and Pateros	Charisse M. Macapagal	Sen. Renato "Compañero" Cayetano Memorial Science And Technology High School	Anti-Angiogenic And Vascular Irritancy Screening Of Purple Corn (Zea Mays L.) Cob Using In Ovo Duck Chorioallantoic Membrane Assay	Gleza Lynn N. Aseñas	Quinn Norman O. Arreza	Dr. Marivic T. Almo	Dr. Alejandro G. Ibarñez	
Quezon City	Josiah Christopher Q. Cruz	Quezon City Science High School	Anticancer Potential Of Molave ( <i>Vitex Parviflora Juss.</i> ) Crude Leaf Ethanollic Extract Against Lung Cancer Cells (A549 And GI01)	Mr. Earl Francis C. Merilles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CFSO V	

<b>Finalist</b>								
Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
Life Science Team	Malabon City	Anelyn B. Cantanjos, Trisha A. Ancheta, Mary Laine C. Avila	Tinajeros National High School	Effectiveness Of Caraway (Carum Carvi) Seed Extract As Pesticide Against Luzon Point Headed Termites (Nasutitermes Luzonicus)	Shamerie S. Villabeza	Ma. Victoria R. De Gulan	Dr. Manolo Davantes Jr.	Dr. Cecille G. Carandang
	Manila	Kier Alexandre G. Malonzo, Gino Paolo P. Rioflorida, Precious Lucky C. Salandanan	Mariano Marcos Memorial High School	Utilization Of Kombucha Tea- Sooby (Symbiotic Culture Of Bacteria And Yeast) As An Alternative For Bio-leather		Consolacion K. Neanep	Ms. Merie Gerlie Capiral	Dr. Rita E. Riddle, CESO V
	Muntinlupa City	Mark Daniel R. Calixto, Geronimo Gabriel T. Natividad, Iii, Ma. Danielle F. Asurto	Muntinlupa Science High School	Sustainable Aquaculture System: Okara As An Alternative Dietary Protein Source For Giant Freshwater Prawns (Macrobrachium rosenbergii, De Man 1879)	Mark Archel O. Javier	Florante C. Marmeto	Dr. Armida S. Oblinada	Dr. Evangeline P. Ladines CESO V
	Navotas City	Saireen Jan C. Oliveros, Venice Angelica A. Crampatana, Carlo T. Timbas	Navotas National Science High School	Bruguiera Sexangula (Potolan) Inhibits Angiogenesis Via Chick Chorioallantoic Membrane (Cam) Assay	Don King Evangelista	Russell P. Sarnson	Ms. Jocelyn R. Agulto	Dr. Meliton P. Zurbano

Pasay City	Heiza Adeth G. Banaag, Rochelle N. Terrado, Simon Gabriel Villa	Pasay City National Science High School	Micropropagation Of The Endangered Philippine Teak ( <i>Tectona Philippinensis</i> ) By Organogenesis Using Nodal Segments	Shannen Dorothy P. Gomez	Rouell A. Santero	Dr. Maripaz T. Mendoza	Dr. Joel T. Torrecampo, CESO VI
Pasig City	Princess Chloe R. Bonifacio, Shilo Havanalyn P. Campomanes, Vince Danielle R. Mansueto	Pasig City Science High School	Enhanced Antibacterial Activity of Wound Dressing Using Biosynthesized Gold and Copper Nanoparticles	Engr. Lady Kymnia D. Garado	Charlie O. Fababaer	Liza A. Alvarez	Mrs. Sheryll T. Gayola, CESO V
Taguig City and Pateros	Felicia R. Amido, Alannah Mae D. Gayanoche, Jarina Alexa N. Mendez	Senator Renato Compañero Cayetano Memorial Science And Technology High School	Isolation And Screening Of Rhizobium In Sitaw ( <i>Vigna Uruguiculata</i> Ssp. <i>Sequipedalis</i> ) Nodules For Potential Biocontrol Against Smut ( <i>Sporisorium Sciranthinum</i> ) In Sugarcane ( <i>Saccharum Officinarum</i> L.)	Jimmaira U. Abanto	Quinn Norman O. Arceza	Dr. Marivic T. Almo	Dr. Alejandro G. Ibañez
Quezon City	Alyanna Marie S. S. Iliw-Iliw, Lucia Faye T. Tagupa, Mark Jared V. Teng	Quezon City Science High School	Herbicidal Effects Of Rice Straw Extract ( <i>Oryza sativa</i> L.) On The Seedling Viability Of Ichgrass ( <i>Rottboellia cochinchinensis</i> )	Mr. Earl Francis C. Merilles	Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Dr. Carleen S. Sedilla

Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
Physical Science Individual	Las Pinas City	Rafael P. Quiling III	Las Pinas National Science High School- Senior High School	The Utilization Of Xanthan Gum Polysaccharide And Cooking Oil Waste In Las Piñas To Create An Abrasion Resistant Rubber Mat	Phyllina Beatriz S. De Guzman, Rmt	Eleanor V. Honrales	Ms. Laprizal Castueras	Dr. Loreta B. Torrecampo
	Makati City	Leen Chad A. Masungong	Maximo Estrella Senior High School	Utilization Of Terminalia Catappa (Talisay) Leaves As A Coagulant In The Initial Treatment Of Surface Water In The Pasig River	Cherry Vida R. Cervantes	Dr. Edwin I. Salvejo	Mr. Herman Apureda	Ms. Ma. Evalou Concepcion A. Agustin, CESO V
	Mandaluyong City	Rhianah S. Sult	City Of Mandaluyong Science High School	Absorption Of Cellulose And Antimicrobial Properties In Pandan (Pandanus Amaryllifolius) Leaf Fiber As A Potential Plant-Based Alternative To Superabsorbent Polymer (Sap) In Commercially Available Disposable Diapers	Ms. Crizel J. Peligrino	Ms. Gigi G. Bullanday	Ms. Roxane Villanueva	Dr. Aurelio G. Alfonso
	Manila	Karl Ellison O. Zurbano	Cayetano Arellano High School	Feasibility Of Taal Volcanic Scoria As Radiation Attenuating Property For	Neil Juvert F. Valentino	John Butch P. Locara	Ms. Merie Gerlie V. Capiral	Dr. Rita E. Riddle

				Construction Aggregates					
Navotas City		Jashley Shannel Asilo	Navotas National Science High School	Peanut (Arachis Hypogaea L.) Shell Decreases Beta-Lactam Amoxicillin Concentration In Water.	Don King O. Evangelista	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Melton P. Zurbarano	
Paranaque City		Steffi D. Entrada	Paranaque National High School-Main	Tomato (Lycopersicon Esculentum) Lycopene Extraction With Coconut Oil As A Sun Protection Factor Enhancer In A Formulated Sunscreen Lotion	Marylene P. Salvatera	Gerry A. Lumaban	Dr. Corazon A. Javier	Dr. Nerissa L. Losaria	
Taguig City and Pareros		Gwyn Nicole L. Dulongbinte	Sen. Renato "Compañero" Cayetano Memorial Science And Technology High School	Mixed Dye Extracts Of Red Onions (Allium Cepa L.), Red-Fleshed Pitaya peels (Selenicereus Costaricensis), And Sweet Potato Leaves (Ipomoea Batatas L.) As Photosensitizers In Dye-Sensitized Solar Cells	Gleza Lynn N. Asoñas	Quinn Norman O. Arreza	Martvic T. Almo	Dr. Alejandro G. Ibañez	
Quezon City		Kyle Irish Mae T. Pleyto	Quezon City Science High School	Revitalizing Carbonates: An Innovative Solution To Recycling Concrete Waste Using Irradiated Concrete Into	Ms. Genevieve C. Vasquez	Ms. Carolyn C. Simon	Dr. Maria Pilar Capalongan	Ms. Carleen S. Sedilla, CESO V	

				Calcium Hydroxide-Based (Ca(OH) <sub>2</sub> ) Carbon Capturing Technology				
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**Finalist**

Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
Physical Science Team	Mandaluyong City	Rhayanna Grey S. Jumawid, Loren Joyce B. Doydora	City Of Mandaluyong Science High School	Feasibility Of Tamarind (Tamarindus Indica) Seed Husks As Potential Adsorbents For Phytoremediation Of Lead And Copper From Pasig River	Ms. Crizel J. Peligriño	Ms. Gigi G. Bullanday	Ms. Roxane Villanueva	Dr. Aurelio G. Alfonso
	Manila	Albancia, James Rey F. Labonete, Ma. Faye N. Perucho, Jasmine A	Raja Soliman Science and Technology High School	Molecular Docking of Moringin, A Stable Isothiocyanate from Moringa oleifera and TRPA1 (Ligand-Free) with Bound Calcium for Visualization of Potential Non-Covalent Activation through Ankyrin Repeat-17 Domain Neighboring Residues	KENT-ZELLARY ENRIQUEZ		Ms. Merie Gerlie Capiral	Dr. Rita E. Riddle
	Marikina City	Francesca Noreen L. Arco, Chelle-Mae H. Bucay, Mithalia	Sta. Elena High School	Comparative Evaluation Between Zinc Oxide - Thyme Oil And Zinc Oxide - Grease Coatings Applied On	Christian A. Alarte	Dr. Jeffrey C. Trinidad	Ms. Jessica Mateo	Dr. Cynthia L. Ayles

		Clare C. Del Valle		Hydrophobic Mirrors.				
Navotas City		Maria Janalia G. Rojo, Lincoln Xeree B. Traquina, Cassandra A. Ingeniero	Navotas National Science High School	S.A.G.E.: Sustainable Dye-Adsorbent For Greener Environment-- Combined Paper Wastes And Commercial Coconut Activated Carbon (Ac) As An Adsorbent Paper Matrix For Methylene Blue And Aniline (Jobus) Dyes	Don King O. Evangelista	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Meliton Zurbano
Pasig City		Valerie Y. Quillao, Tristan James C. Melad, Charles Andrei B. Espinola	Rizal Experimental Station And Pilot School Of Cottage Industries	Renewitech: Recycled Energy Network With Economical Wi-Fi Integration And Technology For Environmental Conservation	Andrew F. Bajana	Ma. Victoria M. Cuervo	Ms. Liza A. Alvarez	Mrs. Sheryll T. Cayola, CESSO V
Taguig City and Pateros		Vince Kristan L. Arcilla, Zandre C. Managbanag, Aprelle Rowena F. Simora	Senator Renato "Compañero" Cayetano Memorial Science And Technology High School	Adsorption Of Hexavalent Chromium (Cr (VI)) In Aqueous Solution Using Surface Functionalized Chitosan-Coated Cogon Grass (Imperata Cylindrica L.) Fiber	Jimmaira U. Abanto	Quinn Norman O. Arreza	Dr. Marivic T. Almo	Dr. Alejandro G. Ibañez
Valenzuela City		Sebastian Ray S. Bautista, Kyla Louise J. Demition, Rob Ryan N. Ramos	Valenzuela City School Of Mathematics And Science	Utilization Of Water Fern (Salvinia Molesta D.S. Mitch.) Extract To Improve	Arene Lois Cahuza	Jaime S. De Vera Jr.	Dr. Maria Lea Q. Prondo	Dr. Noel Bagano

	Quezon City	Anne Gabrielle M. Rosaldo, Maiera Mercurie G. Marcelo, Wyatt Alfonso M. De Belen	Quezon City Science High School	Classification Of Electron Beam-Irradiated Papaya (Carica Papaya) Using Neural Networks	Earl Francis C. Merilles	Carolyn C. Simon	Dr. Maria Pilar Capalongan	Dr. Carleen S. Sedilla, CESO V
				Corrosion Inhibition Of Metal Coatings				

### Finalist

Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
Robotics and Intelligent Machine Individual	Makati City			Agricultural Auto-Care System With Sms Alert For Water Level Monitoring In Aeroponic Tomato (Solanum Lycopersicum) Vegetation: Controlling Humidity, Lighting, Temperature, And Water Level As Sensing Device	Marlou E. Balaoing	Lutgardo P. Cruz	Mr. Hernan L. Apurada	Ms. Ma. Evalou Concepcion A. Agustn, CESO V
	Malabon City	Ignacio Emil N. Lucina	Bangka High School	The Efficiency Of A.B.E.R (Arduino-Based Enrollment And Registrar) System In Managing Panghulo	Maribel G. De Jesus	Julius D. Jaylo	Dr. Manolo Davantes Jr.	Dr. Cecille G. Carandang
		Jack Patrick Q. Abude	Panghulo National High School					

				National High School Files				
Marikina City			The Efficiency Of An Improvised White Canes With An Ultrasonic Sensor And Buzzer For Visually Impaired		Mark Andrew Yague	Nerissa S. Estrella	Ms. Jessica S. Mateo	Dr. Cynthia L. Ayles
Navotas City	Justine Eumnir D. Aquino	Malanday National High School	Rapid: Raspberry Pi For Aquatic Invasive Plant Detection And Alert System Via Internet Of Things (Iot) And Yolov5		Karl Ernell D. Arambulo	Russell P. Sanson	Ms. Jocelyn R. Aguito	Dr. Meliton Zurbarano
Francis Janmes A. Ronidel		Navotas National Science High School	Automatic Pedestrian Accident Detector (Autopad): An Iot-Based Pocket-Sized Device For Instant Alert On Possible Pedestrian Accidents		Jayson R. Tiempo	Ruel A. Grafil	Dr. Corazon Javier	Dr. Nerissa Losaria
Alfonso Jose N. Cirio		Paranaque Science High School	Seismosafe-E: Seismic Event Intensity Sensor With Monitoring Operation System Using Arduino For Effective Evacuation		Eileen L. Del Rosario	Richard T. Santos	Ms. Liza A. Alvarez	Mrs. Sheryl T. Gayola, CESO V
Pasig City	Adelle Maxime B. Mendoza	Rizal High School						

Valenzuela City			The Effectiveness Of Identification Regulated Access Of Water (draw) As Tool In Promoting Water Conservation And Plastic Waste Reduction	Arvin C. Austria	Christopher J. Delino	Dr. Maria Lea Q. Prondo	Dr. Noel D. Bagano
Quezon City	Noaxy S. Cabalfin	Valenzuela National High School	Arduino-Based Autonomous Navigation To Detect Solid Metals For Ground Contamination Recovery (Andar)	Mr. Earl Francis C. Merlles	Ms. Carolyn C. Simon	Dr. Maria Pilar Capalongan	Ms. Carleen S. Sedilla, CESO V
	Angelica A. Prellegera	Quezon City Science High School					

**Finalist**

Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
Robotics and Intelligent Machine Team	Makati City	Seven Anthony B. Mangubat, Shaunn Jared M. Bercasio, Kealoha Arguelles	Bangka High School	Project A.R.V.M.I.S. (Arduino-Based Reverse Vending Machine In Schools) To Improve Solid Waste Management Program	Judeilyn M. Alvirio	Lutgardo P. Cruz	Mr. Hernan Apurada	Ms. Ma. Evelyn Concepcion Agustin, CESO V
		Malabon City		Floodfind: An IoT-Based Flood Monitoring System Using Arduino Mega	Jhon Ivan R. De Jesus	Olivia Q. Martin	Dr. Manolo C. Davantes Jr.	Dr. Cecille G. Carandang
		Alyanna C. Bunag, Kent Louis V. Ganiron, Kaye-	Malabon National High School					

	Ern Redarmy R. Mancilla							
Marikina City	Rhoanna Shane R. Malabaguito, Jasmine Denise C. Del Pilar, Andreia Lourisse A. Basi	Marikina Science High School	Augmented Reality In Education: Development And Validation Of Repliker As Learning Tool And Interactive Android Application	Mark Anthony F. Casimiro	Joseph T. Santos	Ms. Jessica S. Mateo	Dr. Cynthia L. Ayles	
Muntinlupa City	John Reyn Santino R. Villaeaster, Rowel D. Grate, Joshua Miguel Quicho	Muntinlupa National High School	G.A.M.A.I (Global Assistant For Medical Aid And Intelligent Care)		Dr. Antonio B. Rocha	Dr. Armda S. Oblinada	Dr. Evangelina P. Ladines CESO V	
Pasig City	Julienne Milkyla P. Cruz, Mervin Joshua C. Bautista, Luke Samuel B. Legaspi	Rizal High School	Air-Tect: Air Quality Monitoring Device For Concentrations Of Methane (Ch4), Carbon Monoxide (Co), Carbon Dioxide (Co2), Sulfur Dioxide (So2), Temperature And Humidity Using Arduino	Eileen L. Del Rosario	Richard T. Santos	Ms. Liza A. Alvarez	Mrs. Sheryl T. Gayola, CESO V	
Quezon City	Ram Fonzy S. Bobis, Teodor L. Escobido, Trixie Paulyn M. Manuel	Holy Spirit National High School	Time Scheduler And Earthquake Alarm System - TSEQAS Using Ev3 Module	Mr. Diosdado C. Espiritu Jr.	Dr. Arnel L. Cañero	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Cedilla, CesO V	

Valenzuela City	Angelina A. Alipio, Faustine John A. Calmag, Jerson B. Estrada	Malinta National High School	Pyroguard: Assessing The Functionality Of An Arduino-Based Heat-Responsive Fire Suppression Technology With Rfid Access Control For Type A And B Fire	Chealand Dela Cruz	Edwin L. Valera	Dr. Maria Lea Q. Prondo	Dr. Noel D. Bagano
	Kiara Cheska D. David, Sofia Kristine Ysabel S. Soledad, Selwyn D. Braccanonte	Quezon City Science High School	S.A.R.H.: A Soft Actuated Robotic Hand for Range of Motion Therapy on the Rehabilitation of Hand Function for Monoparesis Patients	Ms. Genevieve C. Vasquez	Ms. Carolyn C. Simon	Dr. Maria Pilar Capalongan	Ms. Carleen S. Sedilla, CESO V

Finalist Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
Mathematics and Computational Sciences Individual	Caloocan City	Jan Angelo R. Roncales	Caloocan City Science High School	A Graphical Case Study On The Tricycle Transportation Network In Zone 6, Caloocan City Using Directed Centrality Measures	Guiller Jobert H. Suarez	Philip A. Villamor	Engr. Jennifer B. Mondoy	Dr. Jenilyn Rose B. Corpuz
		Yorihc K. Tabiara	Manila Science High School	Simson Line Duality 2: Complete Quadrilaterals	Julie Anne O. Ramirez	Manolo G. Peña III	Ms. Merie Gerlie V. Capiral	Dr. Rita E. Riddle

Muntinlupa	James Rommel B. Guevara	Muntinlupa Science High School	A* (A-Star) Algorithm With Manhattan Distancing And Geographic Information System (Gis) To Prompt Efficient Public Commuting Routes: Muntinlupa City As The Paradigm Municipality	Geraldine S. Gonzales	Florante C. Marmeto	Dr. Arrida S. Oblinada	Dr. Evangelina P. Ladines CESO V
Navotas City	Ezekiel Jay R. Mata	Navotas National Science High School	Mathematical Formulation Of Linear Attenuation Coefficient: Exploring Energy-Range Relationships	Jerome P. Padillo	Russell P. Samson	Dr. Alberto J. Tiangco	Dr. Melton P. Zurbano
Pasay City	Denmark Jan T. Dapul	Pasay City South High School	Hands: A Transcription Tool For Basic Filipino Sign Language Using Hand Analytic Network Detection System (Image Processing)	Glenn Arwin M. Bristol	Emilia L. Tolentino	Mr. Rogelio S. Junio (Dr. Maripaz T. Mendoza)	Dr. Joel T. Torrecampo, CESO V
Pasig City	Edgar Gerard L. Soliva	Rizal High School	The Patterns Generated in Modified Pascal's Triangles with Ordered Pair Entries (A,B) in	Joshua Elijah P. Gerona	Richard T. Santos	Dr. Teresita P. Tagulao	Mrs. Sheryl T. Gayo CESO V

	Taguig City and Pateros	Alexander R. Doronila	Taguig Science High School	Preliminary Investigation On Coordinates And Circles Of "Fibonacci Spiraling Points"	Kristoffer Paulo Ramirez	Donald S. Bruno	Dr. Mirasol Rongavilla	Dr. Alejandro Ibañez
	Valenzuela City	Leandro S. Asunan	Valenzuela City School Of Mathematics And Science	Geometry Of Taxicab Parabolas: Identifying The Relationship Between The Latus Rectum-Focal Distance Ratio And Directrix In Non-Slant Taxicab Parabolas	Dioscoro G. Lumogdang III	Jaime S. De Vera Jr.	Ms. Marilyn B. Soriano	Dr. Noel D. Bagano

**Finalist**

Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
Mathematics and Computational Sciences Team	Las Pinas City	Kathrina Marie R. Ocampo, Takao John A. Dolente, Janella Erin F. Gutierrez	Las Pinas City National Science High School	Geolocation Database Forecasting For Internet Users Using Television White Space	Angelito P. Kitlala	Eleanor V. Honrales	Dr. Gina L. Aguttez	Dr. Loreta B. Torrecampo
	Mandaluyong City	Matthew Allan S. Fernandez, Kyle Christian M. Cloma,	City Of Mandaluyong Science High School	Lumos: Lighting Using Mathematical Optimization System In Non-	Mr. John Francis S. Cultura	Ms. Gigi G. Bullanday	Mr. Restituto Rodelas	Dr. Aurelio G. Alfonso CESO VI

		Wyndle Wyne R. Calansingin		Reflective Rectangular Prism Rooms With An Upright Floor-Level Cubic Object				
Muntinlupa City		Thony John T. Peralta, Ralph Andre H. Halili, Kyle Xedryc R. Medina	Muntinlupa Science High School	Dijkstra'S Algorithm For Path Optimization Of Emergency Evacuation Route For Deped Instructional Buildings	Zarina T. Pabelonia	Muntinlupa Science High School	Dr. Armida S. Oblinada	Dr. Evangelina P. Ladines CESO V
Pasay City		Lorraine Beatriz C. Agamata, May Relyn S. Depaz, Althea I. Rodriguez	Pasay City National Science High School	Forecasting The Monthly Farmgate Price Of Poultry Chickens Using Sarina Model	Abegail A. Villanueva	Rouell A. Santero	Mr. Rogelio S. Junio (Dr. Maripaz T. Mendoza)	Dr. Joel T. Torreampo, CESO V
Pasig City		Carl A. Basco, Ma. Michelle Angeline C. Sagrado	Pasig City Science High School	Trick or Treat: Using Machine Learning with Python To Detect Scam Sms Messages	Joseph S. Lara	Charlie O. Fababaer	Dr. Teresita Tagulao	Mrs. Sheryl T. Gayol CESO V
Taguig City and Pateros		Myke Lawrence F. Ricerra, Don O'Nelle S. Dujali, Angelo Justine G. Zaraspe	Sen. Renato "Compañero" Cayetano Memorial Science And Technology High School	Longest Diagonal Relationship (Ldr): A Mathematical Quest On Area And Nature Of Regular Convex	Quinn Norman O. Arreza	Dr. Mirasol Rongavilla	Dr. Alejandro G. Ibañez	

	Valenzuela City	John Rafael S. De Dios, Ethan Samuel R. Estabillo, Zoe Gwyneth P. Sarmiento	Valenzuela City School Of Mathematics And Science	Polygon Composition	Dragon Curve: Transforming Collatz Conjecture Through Visual Coefficient Modification	Jayvee P. Orejola	Jaime S. De Vera Jr.	Ms. Marilyn Soriano	Dr. Noel D. Bagano
	Quezon City	Kirsten Geraldine C. C. Esteban, Kim D. Agot, Lozano L. Cruz, Jr.	Quezon City Science High School	A Mathematical Investigation on the Maximum Number of Intersections of k Segments Equally Dividing each Vertex Angle of a Triangle		Ms. Allyn R. Mendez	Ms. Carolyn C. Simon	Dr. Joel P. Feliciano	Ms. Carleen S. Sedill CESO V

Finalist									
Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent	
Science Innovation Expo Individual	Manila	Maria Janina Bien V. Calma	Victorino Mapa High School	Project Watch	Barbara V. Calma	Robert P. Velasquez	Merle Gerlie V. Capiral	Dr. Rita E. Raddie	
	Martinda City	Leoj Auguston T. Ong	Malanday National High School	Efficiency Of Multifunctional Solar Charging Storage Box	Donna Heizel F. Lopez	Nerissa S. Estrella	Ms. Jessica S. Malco	Dr. Cynthia L. Ayles	

Muntinlupa City	Sean Conrad B. Lababo	Muntinlupa Science High School	Production, Characterization, And Properties Of Suckermouth Sailfin Catfish (Pterygoplichthys Pardalis) Entrails As An Alternative Feedstock For Biodiesel Blends	Mark Archel O. Javier	Fiorante C. Marneto	Dr. Armiida S. Oblinada	Dr. Evangelina P. Ladines
Navotas City	Kylie Q. Cruz	Navotas National Science High School	Dasca: Enabling Connection - A Specialized Augmentative Alternative Communication (Aac) Application For Breaking Language And Speech Communication Barriers Among Filipino Citizens	Karl Erniel D. Arambulo	Russell P. Samson	Ms. Jocelyn R. Aguito	Dr. Meliton P. Zurbano
Paranaque City	Alyanna B. Belista	Paranaque National High School-Main	Printed Metalized Biaxially Oriented (Bopp) Film As A Thermal Insulator	Princetonville S. Lanza	Gerry A. Lumbaban	Dr. Corazon A. Javier	Dr. Nerissa L. Losari
Pasay City	Francis James Thaddaus M. Armendi	Pasay City South High School	Time-Programmed Current Terminating Arduino Uno-Based Device With Relay Module In Solving Phantom Load	May Ann D. Romano	Emilia L. Tolentino	Dr. Maripaz T. Mendoza	Dr. Joel T. Torrecampo, CESO V
Taguig City and Pateros	George Lean C. Tizon	Senator Renato Compañero Cayetano Memorial	Stair Assistance For Everyone (S.A.F.E.)	Annalyn B. Noble	Quinn Norman O. Arreza	Dr. Marivic T. Almo	Dr. Alejandro G. Ibañez

			Science And Technology High School						
Quezon City			Quezon City Science High School	Arduino Uno For Power Interruption Adjunct To Flood Water Detection (APAW)	Mr. Earl Francis C. Merilles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedill	CESO V
	Alfred S. Tadena								

Finalist									
Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent	
Science Innovation Expo Team	Malabon City	Joana B. Rolette, Denver G. Gerez, Shane M. Mesina	Corcepcion Technical Vocational School	Assessing The Ability Of Prototype Atomic (Automated Teachers' Organizing Material For Instructional Convenience) As A Mobile, Compact And Multi-Functional Device	Jenny Cris R. Siazon	Nenita J. Rivera	Dr. Manolo Davantes Jr.	Dr. Cecile G. Carandang	
	Marikina City	Luis Benedict V. Schied, Cyflor Averhyle P. Dordas, Michael Scalitel G. Rivera	Marikina High School	Home Laundry Wastewater Recycling Facility	Emil Constantine Buguina	Maribeth C. Rosario	Ms. Jessica S. Mateo	Dr. Cynthia L. Ayles	
	Muntinlupa City	Jillian R. Santos, Rifa Antonia D. Rasalan,	Muntinlupa Science High School	Manila Clam (Venerupis Philippinarum) Shells As Filters On Biocomposite	Lady Edlenill J. Tavu	Fiorante C. Marmeto	Dr. Armida S. Oblinada	Dr. Evangelina P. Ladines	

		Manuel Issiah A. Rito		Denture Base Acrylic Resins				
Navotas City	Rednalyn Joy C. Chua, Shane Dyll Kate A. Cuña, Patricia Denise T. Santos	Filemon T. Lizan Senior High School	Development Of A Bio-Based Sealant Using Chanos Chanos (Milkfish) Fish Glue And Goat Dung Ash	Engr. Francis Paul B. Dela Cruz	Irwin S. Jopio	Ms. Jocelyn R. Agulto	Dr. Meliton P. Zurban	
Paranaque City	Eulheime A. Lopez, Anna A. Domine, Charles Christian P. Gopengco	Paranaque Science High School	Particle Board Production Using Bamboo (Bambusa Schreb), Tobacco (Nicotiana Tabacum) Stalks, and Gmelina (Gmelina Arborea) Wood with Cement	Ma. Theresa G. Batta	Ruel A. Grañil	Dr. Corazon A. Javier	Dr. Nerissa L. Losaria	
Pasig City	Angel Dennisse B. Esguerra, Marcia Ghaye A. Marcelo, Mia Ivahna C. Villafania	Pasig City Science High School	C47 Astmask: Life Mask With Installed Inhaler For Asthmatic Patients Filtered With Taro Leaves	Engr. Lady Kynnia D. Garado	Charlie O. Fabbauer	Ms. Liza A. Alvarez	Mrs. Sheryll T. Gayolala CESO V	
Taguig City and Paleros	Shannen Elysse M. Puga, Anica Myiel H. Timogtimog, Meleen T. Constantino	Taguig Science High School	X-Haust Scrubber: The Use Of Activated Charcoal As A Solution To Vehicle Smoke Emissions	Janeth G. Mamansag	Donald S. Bruno	Ms. Marivic T. Almo	Dr. Alejandro G. Ibanez	
Quezon City	Mark Louis Y. Tiongco, Fiona Margarette S. Ayeras,	Quezon City Science High School	A Solar Powered Smart Traffic Light System For Emergency	Ms. Genevieve C. Vasquez	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalangan	Ms. Carleen S. Sedilla, CESO V	

		Lahlaime Joy M. Esparrago		Vehicles Prioritization Using AI-Enhanced Machine Learning Framework				
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**Enclosure 3 Top 5 Best Research Projects**

<b>Top 5 Best Research Projects: Life Science Individual</b>								
Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Quezon City	Josiah Christopher Q. Cruz	Quezon City Science High School	Anticancer Potential Of Molave ( <i>Vitex parviflora Juss.</i> ) Crude Leaf Ethanolic Extract Against Lung Cancer Cells (A549 And GI01)	Mr. Earl Francis C. Merilles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V
Second	Navotas City	Diana Rose D. Mucho	Navotas National Science High School	Moringa Oleifera Leaf Extract Decreases Caffeine-Induced Insomnia In Sleep-Wake Behaviors Of Drosophila Melanogaster	Joseph Gabriel G. Cruz	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Meliton P. Zurbarano
Third	Taguig City and Pateros	Charisse M. Macapagal	Sen. Renato "Compañero" Cayetano Memorial Science And	Anti-Angiogenic And Vascular Irritancy Screening Of Purple Corn (Zea	Gleza Lynn N. Aseñas	Quinn Norman O. Arreza	Dr. Marivic T. Almo	Dr. Alejandro G. Ibañez

			Technology High School	Meys L.) Cob Using In Ovo Duck Chorioallantoic Membrane Assay					
Fourth	Paranaque City	Jasmin Victoria B. Bonifacio	Paranaque National High School-Main	A Comparative Study Of The Efficacy Between Rice Husk And Corn Cob As Substrates For Hydroponic Gardening	Princeville S. Lanza	Gerry A. Lumaban	Dr. Corazon A. Javier	Dr. Nerissa L. Losaria	
Fifth	Las Pinas City	Sofia Astrud P. Rogado	Las Piñas National High School-Senior High School	In Silico Analysis Of Curcuminoids And "Curcumin" Analogues As Epidermal Growth Factor Receptor (Egfr) Inhibitor: A Novel Approach For Prostate Cancer Therapy	Margian Erica S. Taguas	Ignacio L. Son, Jr.	Ms. Laprizal Castuerras	Dr. Loreta B. Torrecampo	

**Top 5 Best Research Projects: Life Science Team**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Quezon city	Alyanna Marie S. S. Iliw-Iliw, Lucia Faye T. Tagupa,	Quezon City Science High School	Herbicidal Effects Of Rice Straw Extract ( <i>Oryza sativa L.</i> ) On The Seedling Viability of Itchgrass	Mr. Earl Francis C. Merlles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V

		Mark Jared V. Teng		( <i>Rothboellia cochinchinensis</i> )					
Second	Navotas City	Saireen Jan C. Oliveros, Venice Angelica A. Crampatana, Carlo T. Timbas	Navotas National Science High School	Bruguiera Sexangula (Potolan) Inhibits Angiogenesis Via Chick Chorioallantoic Membrane (Cam) Assay	Don King Evangelista	Russell P. Sanson	Ms. Jocelyn R. Agulto	Dr. Meliton P. Zurbarano	
Third	Passay City	Heiza Adeth G. Banaag, Rochelle N. Terrado, Simon Gabriel Villa	Passay City National Science High School	Micropropagation Of The Endangered Philippine Teak ( <i>Tectona Philippinensis</i> ) By Organogenesis Using Nodal Segments	Shannen Dorothy P. Gomez	Rouell A. Santero	Dr. Maripez T. Mendoza	Dr. Joel T. Torreampo, CESO VI	
Fourth	Malabon City	Aralyn B. Cantorjos, Trisha A. Ancheta, Mary Laine C. Avila	Tinajeros National High School	Effectiveness Of Caraway ( <i>Carum Carvi</i> ) Seed Extract As Pesticide Against Luzon Point Headed Ternites ( <i>Neautitermes luzonicus</i> )	Shannarie S> Villabeza	Ma. Victoria R. De Gulan	DR. Manolo C. Davantes Jr.	Dr. Cecille G. Carandang	
Fifth	Passig City	Princess Chloe R. Bonifacio, Shilo Havanalyn P. Campomanes, Vince Danielle R. Mansueto	Passig City Science High School	Enhanced Antibacterial Activity Of Wound Dressing Using Biosynthesized Gold And Copper Nanoparticles		Charlie O. Fababaer	Ms. Liza A. Alvarez	Dr. Sheryll T. Gayola	

**Top 5 Best Research Projects: Physical Science Individual**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Manila	Karl Ellison O. Zurbano	Cayetano Arellano High School	Feasibility Of Taal Volcanic Scoria As Radiation Attenuating Property For Construction Aggregates	Neil Juvert F. Valentino	John Butch P. Locara	Ms. Merie Gerlie V. Capiral	Dr. Rita E. Riddle, CESO V
Second	Taguig City and Pateros	Gwyn Nicole L. Dulongbinte	Sen. Renato "Compañero" Cayetano Memorial Science And Technology High School	Mixed Dye Extracts Of Red Onions (Allium Cepa L.), Red-Fleshed Pitaya Peels (Selenicereus Costaricensis), And Sweet Potato Leaves (Ipomoea Batatas L.) As Photosensitizers In Dye-Sensitized Solar Cells	Gleza Lynn N. Aseñas	Quinn Norman O. Arreza	Dr. Marivic T. Almo	Dr. Alejandro G. Ibañez
Third	Mandaluyong City	Rhianah S. Sultit	City Of Mandaluyong Science High School	Absorption Of Cellulose And Antimicrobial Properties In Pandan (Pandanus Amaryllifolius) Leaf Fiber As A Potential Plant-Based Alternative To Superabsorbent Polymer (Sap) In Commercially Available	Ms. Crizel J. Peligrino	Ms. Gigi G. Bullanday	Ms. Roxane S. Villanueva	Dr. Aurelio G. Alfonso

				Disposable Diapers					
Fourth	Paranaque City	Steffi D. Entrada	Paranaque National High School-Main	Tomato (Lycopersicon Esculentum) Lycopene Extraction With Coconut Oil As A Sun Protection Factor Enhancer In A Formulated Sunscreen Lotion	Marylene P. Salvatera	Gerry A. Lumaban	Dr. Corazon A. Javier	Dr. Nerissa L. Losaria	
Fifth	Las Pinas City	Rafael P. Quiling III	Las Pinas National Science High School- Senior High School	The Utilization Of Xanthan Gum Polysaccharide And Cooking Oil Waste In Las Pinas To Create An Abrasion Resistant Rubber Mat	Phyllina Beatriz S. De Guzman, Rmt	Eleanor V. Horrales	Ms. Laprizal P. Castueras	Dr. Loreta B. Torrecampo	

**Top 5 Best Research Projects: Physical Science Team**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Taguig City and Pateros	Vince Kristan L. Arcilla, Zandre C. Managbanag, Aprille Rowena F. Simora	Senator Renato "Compañero" Cayetano Memorial Science And Technology High School	Adsorption Of Hexavalent Chromium (Cr (VI)) In Aqueous Solution Using Surface Functionalized	Jinnaira U. Abanto	Quinn Norman O. Arreza	Dr. Marivic T. Almo	Dr. Alejandro G. Ibañez

				Chitosan-Coated Cogon Grass (Imperata Cylindrica L.) Fiber				
Second	Quezon City	Anne Gabrielle M. Rosaldo, Maira Mercurie G. Marcelo, Wyatt Alfonso M. De Belen	Quezon City Science High School	Classification Of Electron Beam- Irradiated Papaya (Carica papaya) Using Neural Networks	Mr. Earl Francis C. Merilles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V
Third	Navotas City	Maria Jannalia G. Rojo, Lincoln Xere B. Traquina, Cassandra A. Ingeniero	Navotas National Science High School	S.A.G.E.: Sustainable Dye- Adsorbent For Greener Environment-- Combined Paper Wastes And Commercial Coconut Activated Carbon (Ac) As An Adsorbent Paper Matrix For Methylene Blue And Aniline (Jobst) Dyes	Don King O. Evangelista	Russell P. Samson	Ms. Jocelyn R. Aguilo	Dr. Melton P. Zurbano
Fourth	Manila	Albancia, James Rey F. Labonete, Ma. Faye N. Perucho, Jasmine A	Raja Soliman Science and Technology High School	Molecular Docking of Moringin, A Stable Isothiocyanate from Moringa oleifera and TRPA1 (Ligand-Free) with Bound Calcium for Visualization of Potential Non- Covalent Activation through Ankyrin Repeat-17 Domain	KENT- ZELLARY ENRIQUEZ		Ms. Merie Gertie Capiral	Dr. Rita E. Riddle, CESO V

				Neighboring Residues				
Fifth	Mandaluyong City	Rhayanna Grey S. Jumawid, Loren Joyce B. Doydora	City Of Mandaluyong Science High School	Feasibility Of Tamarind (Tamarindus Indica) Seed Husks As Potential Adsorbents For Phytoremediation Of Lead And Copper From Pasig River	Ms. Crizel J. Peligrino	Ms. Gigi G. Bullanday	Ms. Roxane S. Villanueva	Dr. Aurelio G. Alfonso

<b>Top 5 Best Research Projects: Robotics and Intelligent Machine Individual</b>								
Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	School's Division Superintendent
First	Quezon City	Angelica A. Prelegera	Quezon City Science High School	Arduino-Based Autonomous Navigation To Detect Solid Metals For Ground Contamination Recovery (Andar)	Mr. Earl Francis C. Meriles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V
Second	Makati City	Ignacio Emil N. Lucina	Bangka High School	Agricultural Auto-Care System With Sms Alert For Water Level Monitoring In Aeroponic Tomato (Solanum Lycopersicum) Vegetation: Controlling Humidity, Lighting,	Marlou E. Balaoing	Lutgardo P. Cruz	Mr. Hernan Apurada	Ms. Ma. Evalou Concepcion A. Agustin, CESO V

				Temperature, And Water Level As Sensing Device				
Third	Marikina City	Justine Eumir D. Aquino	Malanday National High School	The Efficiency Of An Improvised White Cane With An Ultrasonic Sensor And Buzzer For Visually Impaired	Mark Andrew Yague	Nejassa S. Estrella	Ms. Jessica S. Mateo	Dr. Cynthia L. Ayles
Fourth	Valenzuela City	Noaxy S. Cabalin	Valenzuela National High School	The Effectiveness Of Identification Regulated Access Of Water (draw) As Tool In Promoting Water Conservation And Plastic Waste Reduction	Arvin C. Austria	Christopher J. Delino	Dr. Maria Lea Q. Prondo	Dr. Noel D. Bagano
Fifth	Malabon City	Jack Patrick Q. Abude	Panghulo National High School	The Efficiency Of A.B.E.R (Arduino-Based Enrollment And Registrar) System In Managing Panghulo National High School Files	Mariel G. De Jesus	Julius D. Jaylo	Dr. Manolo C. Davantes	Dr. Cecille G. Carandang,

<b>Top 5 Best Research Projects: Robotics and Intelligent Machine Team</b>								
Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Quezon City	Raim Fonzy S. Bobis, Teodor L. Escobido, Trixie Paulyn M. Manuel	Holy Spirit National High School	Time Scheduler And Earthquake Alarm System - TSEQAS Using EV3 Module	Mr. Diosdado C. Espiritu Jr.	Dr. Arnel L. Cañero	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Cedilla, Ceso V
Second	Malabon City	Ayaanna C. Bunag, Kent Louis V. Ganiron, Kaye-Ern Redarmy R. Mancilla	Malabon National High School	Floodfind: An IoT-Based Flood Monitoring System Using Arduino Mega		Olivia Q. Martin	Dr. Manolo C. Davantes	Dr. Cecille G. Carandang
Third	Quezon City	Kiara Cheska D. David, Sofia Kristhne Yasbel S. Soledad, Selwyn D. Bracamonte	Quezon City Science High School	S.A.R.H.: A Soft Actuated Robotic Hand for Range of Motion Therapy on the Rehabilitation of Hand Function for Monoparesis Patients	Ms. Genevieve C. Vasquez	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V
Fourth	Makati City	Seven Anthony B. Mangubat, Shaunn Jared M. Bercasio, Kealoha Arguelles	Bangka High School	Project A.R.V.M.I.S. (Arduino-Based Reverse Vending Machine In Schools) To Improve Solid Waste Management Program	Judelyn M. Alvaro	Lutgardo P. Cruz	Mr. Hernan L. Apurada	Ms. Ma. Evelyn Concepcion A. Agustin, CESO V

Fifth	Valenzuela City	Angelina A. Alipio, Faustine John A. Calimag, Jerson B. Estrada	Malinta National High School	Pyroguard: Assessing The Functionality Of An Arduino-Based Heat-Responsive Fire Suppression Technology With Rfid Access Control For Type A And B Fire	Chealand Dela Cruz	Edwin L. Valera	Dr. Maria Lea Q. Prado	Dr. Noel D. Bagano
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**Top 5 Best Research Projects: Mathematics and Computational Sciences Individual**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Valenzuela City	Leandro S. Asunan	Valenzuela City School Of Mathematics And Science	Geometry Of Taxicab Parabolas: Identifying The Relationship Between The Latus Rectum-Focal Distance Ratio And Directrix In Non-Slant Taxicab Parabolas	Dioscoro G. Lumogdang III	Jaime S. De Vera Jr.	Ms. Marilyn B. Soriano	Dr. Noel D. Bagano
Second	Muntinlupa City	James Rommel B. Guevara	Muntinlupa Science High School	A* (A-Star) Algorithm With Manhattan Distancing And Geographic Information System (GIS) To Prompt Efficient Public	Geraldine S. Gonzales	Florante C. Marneto	Dr. Arniida S. Obinada	Dr. Evangelina P. Ladines CESO V

				Commuting Routes: Muntinlupa City As The Paradigm Municipality					
Third	Manila	Yorlic K. Tablara	Manila Science High School	Simon Line Duality 2: Complete Quadrilaterals	Julie Anne O. Ramirez	Marolo G. Peña III	Dr. Remyllinda Soriano	Dr. Rita E. Riddle, CESO V	
Fourth Fourth	Pasig City	Edgar Gerard L. Soliva	Rizal High School	The Patterns Generated in Modified Pascal's Triangles With Ordered Pair Entries (A, B) In Addition Modulo 2, 3, and 4	Joshua Elijah P. Gerona	Richard T. Santos	Dr. Teresita P. Tagulao	Mrs. Sheryl T. Gayola, CESO V	
Fifth	Pasey City	Denmark Jan T. Depul	Pasay City South High School	Hands: A Transcription Tool For Basic Filipino Sign Language Using Hand Analytic Network Detection System (Image Processing)	Glenn Arwin M. Bristol	Emilia L. Tolentino	Mr. Rogelio Junio	Dr. Joel T. Torrecampo, CESO VI	

**Top 5 Best Research Projects: Mathematics and Computational Sciences Team**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Mandaluyong City	Matthew Allan S. Fernandez, Kyle Christian M. Clorna,	City Of Mandaluyong Science High School	LUMOS: Lighting Using Mathematical Optimization System in Non-	Mr. John Francis S. Cultura	Ms. Gigi G. Bullanday	Mr. Resituito I. Rodelas	Dr. Aurelio G. Alfonso

		Wyndle Wyne R. Calansingin		Reflective Cuboid Rooms with Upright Objects				
Second	Pasig City	Carl A. Basco, Ma. Michelle Angeline C. Sagrado	Pasig City Science High School	Trick Or Treat: Using Machine Learning With Python To Detect Scam Sms Messages	Joseph S. Lara	Charlie O. Faboabaer	Dr. Teresita P. Tagulao	Mrs. Sheryll T. Gayola, CESO V
Third	Las Pinas City	Kathrina Marie R. Ocampo, Takao John A. Dolente, Janella Erin F. Gutierrez	Las Pinas City National Science High School	Geolocation Database Forecasting For Internet Users Using Television White Space	Angelito P. Kilala	Eleanor V. Honrales	Dr. Gina L. Aguitez	Dr. Loreta B. Torrecampo
Fourth	Quezon City	Kirsten Geraldine C. C. Esteban, Kim D. Agot, Lozano Jr. L. Cruz	Quezon City Science High School	A Mathematical Investigation On A Strict Upper Bound For The Maximum Number Of Intersections Of Varying Number Of Segments From Each Vertex Equally Dividing The Angles Of A Triangle	Allyn R. Mendez	Carolyn C. Simon	Dr. Joel P. Feliciano	Dr. Carleen S. Sedilla
Fifth	Valenzuela City	John Rafael S. De Dios, Ethan Samuel R. Estabillo, Zoe Gwyneth P. Sarmiento	Valenzuela City School Of Mathematics And Science	Dragon Curve: Transforming Collatz Conjecture Through Visual Coefficient Modification	Jayvee P. Orejola	Jaime S. De Vera Jr.	Ms. Marilyn B. Soriano	Dr. Noel D. Bagano

<b>Top 5 Best Research Projects: Science Innovation Expo Individual</b>								
Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Navotas City	Kylie Q. Cruz	Navotas National Science High School	Dasca: Enabling Connection - A Specialized Augmentative Alternative Communication (Aac) Application For Breaking Language And Speech Communication Barriers Among Filipino Citizens	Karl Ernie D. Arambulo	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Melton P. Zurbano
Second	Taguig City and Pateros	George Lean C. Tizon	Senator Renato Compañero Cayetano Memorial Science And Technology High School	Stair Assistance For Everyone (S.A.F.E.)	Annalyn B. Noble	Quinn Norman O. Arreza	Dr. Marivic T. Almo	Dr. Alejandro G. Ibanez
Third	Pasay City	Francis James Thaddaus M. Armendi	Pasay City South High School	Time-Programmed Current Terminating Arduino Uno-Based Device With Relay Module In Solving Phantom Load	May Ann D. Romano	Emilia L. Tolentino	Dr. Maripaz T. Mendoza	Dr. Joel T. Torrecampo, CESO VI
Fourth	Quezon City	Alfred S. Tadena	Quezon City Science High School	Arduino Uno For Power Interruption Adjunct To Flood Water Detection (APAW)	Mr. Earl Francis C. Merilles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Scdilla, CESO V

Fifth	Paranaque City	Alyanna B. Belista	Paranaque National High School-Main	Printed Metalized Biaxially Oriented (Bopp) Film As A Thermal Insulator	Princeville S. Lanza	Gerry A. Lumaban	Dr. Corazon A. Javier	Dr. Nerissa L. Losaria
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**Top 5 Best Research Projects: Science Innovation Expo Team**

Place	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
First	Quezon City	Mark Louis Y. Tiongco, Fiona Margarette S. Ayeras, Lahlaine Joy M. Esparrago	Quezon City Science High School	A Solar Powered Smart Traffic Light System For Emergency Vehicles Prioritization Using AI-Enhanced Machine Learning Framework	Ms. Genevieve C. Vasquez	Ms. Carolyn C. Simon	Dr. Maria Pia O. Capalongan	Ms. Carleen S. Sedilla, CESO V
Second	Muntinlupa City	Jillian R. Santos, Riffa Antonia D. Rasalan, Manuel Issiah A. Rito	Muntinlupa Science High School	Manila Clam (Venerupis Philippinorum) Shells As Fillers On Biocomposite Denture Base Acrylic Resins	Lady Edlenill J. Tavan	Florante C. Marmeto	Dr. Armida S. Oblinada	Dr. Evangeline P. Ladines CESO V
Third	Paranaque City	Eulheinne A. Lopez, Anna A. Domine, Charles Christian P. Gopengco	Paranaque Science High School	Particle Board Production Using Bamboo (Bambusa Schreb), Tobacco (Nicotiana Tabacum) Stalks, and Gmelina	Ma. Theresa G. Baita	Ruel A. Grafi	Dr. Corazon A. Javier	Dr. Nerissa L. Losaria

				(Gimelina Arborea) Wood with Cement					
Fourth	Navotas City	Rednalyn Joy C. Chua, Shane Dyll Kate A. Cuña, Patricia Denise T. Santos	Filemon T. Lizan Senior High School	Development Of A Bio-Based Sealant Using Charos Charos (Milkfish) Fish Glue And Goat Dung Ash	Engr. Francis Paul B. Dela Cruz	Irwin S. Jopio	Ms. Jocelyn R. Agulto	Dr. Meliton P. Zurbarano	
Fifth	Pasig City	Angel Dennisse B. Esguerra, Marcia Ghaye A. Marcelo, Mia Ivahna C. Villafania	Pasig City Science High School	C47 AsthmaMask: Life Mask With Installed Inhaler For Asthmatic Patients Filtered With Taro Leaves	Engr. Lady Kynnia D. Garado	Charlie O. Fababaer	Ms. Liza A. Alvarez	Mrs. Sheryll T. Gayola, CESO V	

**Enclosure 4 Lourdes Choice Award**

<b>Lourdes Choice Award</b>									
Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent	
Robotics and Intelligent Machine Individual	Marikina City	Jusdne Eumir D. Aquino	Malanday National High School	The Efficiency Of An Improvised White Canic With An Ultrasonic Sensor And Buzzer For Visually Impaired	Mark Andrew Yague	Narissa S. Estrella	Ms. Jessica S. Mateo	Dr. Cynthia L. Ayles	

Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	Schools Division Superintendent
Life Science Individual	Quezon City	Josiah Christopher Q. Cruz	Quezon City Science High School	Anticancer Potential Of Molave ( <i>Vitex parviflora Juss.</i> ) Crude Leaf Ethanolic Extract Against Lung Cancer Cells (A549 And GI01)	Mr. Earl Francis C. Merilles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V
Science Innovation Expo Individual	Pasey City	Francis James Thaddeus M. Armendi	Pasey City South High School	Time-Programmed Current Terminating Arduino Uno-Based Device With Relay Module In Solving Phantom Load	May Ann D. Romano	Emilia L. Tolentino	Dr. Maripaz T. Mendoza	Dr. Joel T. Torrecampo, CESO VI
Robotics and Intelligent Machine Team	Quezon City	Kiara Cheska D. David, Sofia Kristine Ysabel S. Soledad, Selwyn D. Bracamonte	Quezon City Science High School	S.A.R.H.: A Soft Actuated Robotic Hand for Range of Motion Therapy on the Rehabilitation of Hand Function for Monoparesis Patients	Ms. Genevieve C. Vasquez	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V
Science Innovation Expo Individual	Navotas City	Kylie Q. Cruz	Navotas National Science High School	Dasca: Enabling Connection - A Specialized Augmentative Alternative Communication (Aac) Application	Karl Ermiel D. Arambulo	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Meliton P. Zurbano

				For Breaking Language And Speech Communication Barriers Among Filipino Citizens				
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**Enclosure B NSTP Qualifiers**

Category	SDO	Researchers' Names	Name of School	Research Title	Research Adviser	School Head	Science Supervisor	School's Division Superintendent
Life Science Individual	Quezon City	Josiah Christopher Q. Cruz	Quezon City Science High School	Anticancer Potential Of Malave ( <i>Vitex parryiflora</i> Juss.) Crude Leaf Ethanolic Extract Against Lung Cancer Cells (A549 And GI01)	Mr. Earl Francis C. Merilles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Sedilla, CESO V
Life Science Team	Quezon City	Alyanna Marie S. S. Ilw-Ilw, Lucia Faye T. Tagupa, Mark Jared V. Teng	Quezon City Science High School	Herbicidal Effects Of Rice Straw Extract ( <i>Oryza sativa</i> L.) On The Seeding Viability Of Itchgrass ( <i>Rottboellia cochinchinensis</i> )	Mr. Earl Francis C. Merilles	Ms. Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Ms. Carleen S, Sedilla, CESO V
Physical Science Individual	Manila	Karl Ellison O. Zurbano	Cayetano Arellano High School	Feasibility Of Taal Volcanic Scoria As Radiation Attenuating Property For Construction Aggregates	Neil Juvert F. Valentino	John Butch P. Locara	Ms. Merie Gerlie V. Capiral	Dr. Rita E. Riddle, CESO V

Physical Science Team	Taguig City and Pateros	Vince Kristan L. Arcilla, Zandre C. Managbanag, Aprille Rowena F. Simora	Senator Renato "Compañero" Cayetano Memorial Science And Technology High School	Adsorption Of Hexavalent Chromium (Cr (VI)) In Aqueous Solution Using Surface Functionalized Chitosan-Coated Cogon Grass (Imperata Cylindrica L.) Fiber	Jimmaira U. Abanto	Quinn Norman O. Arreza	Dr. Marivic T. Almo	Dr. Alejandro G. Ibañez
Robotics and Intelligent Machine Individual	Quezon City	Angelica A. Prellegera	Quezon City Science High School	Arduino-Based Autonomous Navigation To Detect Solid Metals For Ground Contamination Recovery (Andar)	Earl Francis C. Merilles	Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Dr. Carleen S. Secilla
Robotics and Intelligent Machine Team	Quezon City	Ram Fonzy S. Bobis, Teodor L. Escobido, Trixie Paulyn M. Manuel	Holy Spirit National High School	Time Scheduler And Earthquake Alarm System - TSBOAS Using EV3 Module	Mr. Diosdado C. Espiritu Jr.	Dr. Arnel L. Cañero	Dr. Maria Pilar O. Capalongan	Ms. Carleen S. Cedilla, Ceso V
Mathematics and Computational Sciences Individual	Valenzuela City	Leandro S. Asunan	Valenzuela City School Of Mathematics And Science	Geometry Of Taxicab Parabolas: Identifying The Relationship Between The Latus Rectum-Focal Distance Ratio And Directrix In Non-Slant Taxicab Parabolas	Dioscoro G. Lumogdang Iii	Jairne S. De Vera Jr.	Ms. Marilyn B. Soriano	Dr. Noel D. Bagano
Mathematics and Computational Sciences Team	Mandaluyong City	Matthew Allan S. Fernandez, Kyle Christian M. Cloma,	City Of Mandaluyong Science High School	LUMOS: Lighting Using Mathematical Optimization System In Non-	Mr. John Francis S. Cultura	Ms. Gigi G. Bullanday	Mr. Restituto I. Rodelas	Dr. Aurelio G. Alfonso

		Wynndle Wyne R. Calansingin		Reflective Cuboid Rooms with Upright Objects				
Science Innovation Expo Individual	Navotas City	Kylie Q. Cruz	Navotas National Science High School	Dasca: Enabling Connection - A Specialized Augmentative Alternative Communication (AAC) Application For Breaking Language And Speech Communication Barriers Among Filipino Citizens	Karl Erricell D. Aranbulo	Russell P. Samson	Ms. Jocelyn R. Agulto	Dr. Meliton P. Zurbano
Science Innovation Expo Team	Quezon City	Mark Louis Y. Tiongco, Fiona Margarette S. Ayeras, Lahaine Joy M. Esparrago	Quezon City Science High School	A Solar Powered Smart Traffic Light System For Emergency Vehicles Prioritization Using Ai- Enhanced Deep Learning Framework	Genevieve C. Vasquez	Carolyn C. Simon	Dr. Maria Pilar O. Capalongan	Dr. Carleen S. Sedilla