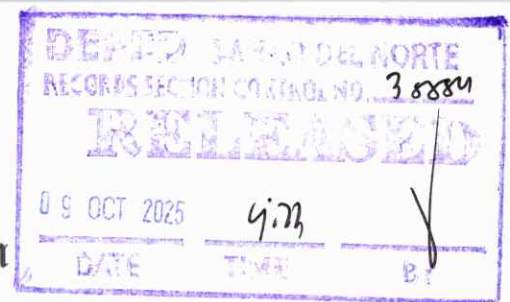




Republic of the Philippines  
**Department of Education**

REGION X

**SCHOOLS DIVISION OF LANA DEL NORTE**



October 7, 2025

**Division Memorandum**

No. 165, s. 2025

**DIVISION TRAINING-WORKSHOP ON INTEGRATING GREEN CHEMISTRY  
AND SUSTAINABILITY IN THE SENIOR HIGH SCHOOL CURRICULUM**

To: Assistant Schools Division Superintendent  
Public Schools District Supervisors/ District In-charge  
School Heads of Public Senior High Schools  
All Senior High Science Teachers  
All Others Concerned  
This Division

1. Pursuant to the Department of Education's commitment to enhancing the quality of science education and integrating environmental stewardship into the K-12 curriculum, the Schools Division Office of Lanao del Norte, through the Curriculum Implementation Division (CID), will conduct a **2-Day Division Training-Workshop on Integrating Green Chemistry and Sustainability in the Senior High School Curriculum on October 24-25, 2025 at Evergreen Garden Resort, Esperanza, Bacolod Lanao del Norte.**
2. The activity aims to:
  - a. Articulate the 12 principles of Green Chemistry and their alignment with the DepEd SHS curriculum;
  - b. Demonstrate proficiency in conducting at least four UNESCO-recognized small-scale chemistry experiments;
  - c. Design a Problem-Based Learning (PBL) lesson plan integrating green chemistry to address a local community issue; and
  - d. Commit to integrating green chemistry concepts into their teaching methodologies.
3. Attached is the List of Participants and Activity matrix.
4. The participants meals and snacks shall be charged against UNILAB Foundation while transportation and other incidental expenses will be charged to



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Republic of the Philippines  
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REGION X  
**SCHOOLS DIVISION OF LANA DEL NORTE**

School Local Funds, subject to the usual accounting and auditing rules and regulations.

5. The participants are entitled to *Vacation Service Credit (VSCs)* in accordance with Deped Order No.013 s. 2024\*Revised Guidelines on the Grant of *VSCs for Teachers* or compensatory Time-Off pursuant to CSC-DBM joint Circular No.2 s. 2004" Non-Monetary Renumeration for Overtime Service Rendered, whichever is applicable.

5. Travelling expenses of the participants shall be charged against the appropriation of local funds/school MOOE subject to the usual accounting and auditing rules and regulations.

6. This Memorandum serves as Authority to Travel for all participants in this activity.

7. Immediate and wide dissemination of this Memorandum to all concerned is desired.

EDWIN R. MARIBOJOC EdD, CESO V  
Schools Division Superintendent



Republic of the Philippines  
Department of Education  
Region X – Northern Mindanao  
**DIVISION OF LANA DEL NORTE**  
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**Two- Day Training Matrix**  
**Division Training-Workshop on Integrating Green Chemistry and Sustainability**  
**in the Senior High School Curriculum**

**DAY 1**

Time	Session Title	Description
8:00-8:30	Registration and Preliminaries	Welcome participants, introduce objectives, and set expectations
8:30 AM - 9:30 AM	<b>Session 1:</b> Introduction to Green Chemistry and Sustainability Education in the Classroom	Discussion of the 12 principles of green chemistry with real-world examples
9:30 AM - 10:30	<b>Session 2:</b> Small-Scale Experiments: Why and How ( <i>Techniques and Chemical Safety</i> )	Hands-on exploration of small-scale lab safety, cost-efficiency, and waste reduction
10:30 AM - 10:45	<b>Health Break</b>	
10:45 AM - 12:00 NN	<b>Workshop 1:</b> Electrolysis of Water	Small-scale setup for hydrogen/oxygen gas collection with minimal chemical use
1:00 - 1:30	Post-Lab Presentation	
1:30 - 3:00	<b>Workshop 2:</b> Strong Acid–Strong Base Titration	Hands-on titration using minimal volumes, sustainable acid/base sources if possible
3:00 - 3:15	<b>Health Break</b>	
3:15 PM - 4:00	Post-Lab Presentation	

**DAY 2**

Time	Session Title	Description
7:30 AM - 8:00 AM	Preliminaries	Welcome participants, recap of previous of session, introduce objectives for the day
8:00 AM - 9:30 AM	<b>Workshop 3:</b> pH Indicators	Extraction and testing of anthocyanins (from locally-available plant samples)
9:30 AM - 10:00 AM	Post-Lab Presentation	
10:00 AM - 10:15 AM	Health Break	
10:15 AM - 11:45 AM	<b>Workshop 4:</b> Law of Conservation of Mass	Conducting reactions in closed systems; tracking matter and

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		minimizing waste
11:45 AM - 12:00 NN	Post-Lab Presentation	
12:00 NN - 1:00 PM	Lunch Break	
1:00 PM - 2:00 PM	<b>Session 3:</b> Problem-based Learning Approach	Discussion on problem-based learning as an approach to meaningful green chemistry education
2:00 PM - 3:00PM	Writeshop on Designing PBL green chemistry experiments - Part 1	Teachers design a green chemistry experiment that solves a local school/community issue using small-scale kits
3:15 PM - 4:00 PM	Gallery Walk and Peer Feedback	Groups present experiments, get peer and facilitator feedback
4:00 PM - 4:30 PM	Closing and Certificate Distribution	Wrap-up, next steps, and giving of certificates



**GREENING CHEMISTRY TRAINING SPONSORED BY UNILAB FOUNDATION Tentatively on  
October 24-25,2025 at Evergreen , Bacolod LDN**

<b>No.</b>	<b>NAME OF SECONDARY SCHOOL</b>	<b>Name of Teacher</b>	<b>District</b>
1	RUFO DELA CRUZ INTEGRATED SCHOOL	DANIELLE ROSE B. RAGPALA	TUBOD WEST
2	RUFO DELA CRUZ INTEGRATED SCHOOL	MITCHELLE A. RABOR	TUBOD WEST
3	PLACIDA MEQUIABAS NATIONAL HS	BETSABE S. RAMIL	KAPATAGAN WEST
4	PLACIDA MEQUIABAS NATIONAL HS	WENDELL B. ESTOCADA	KAPATAGAN WEST
5	PANTAR NATIONAL HIGH SCHOOL	AISA L. AMAL	PANTAR
6	PANTAR NATIONAL HIGH SCHOOL	JAMILAH M. TONTO	PANTAR
7	SERGIO P. CERUJALES JR NATIONAL HIGH SCHOOL	ROWENA E. GENERALLE	MAGSAYSAY
8	MAIGO NATIONAL HIGH SCHOOL	CHARLENE MAE CABASAG	MAIGO
9	MAIGO NATIONAL HIGH SCHOOL	SOLGER PALAHANG	MAIGO
10	Nunungan NHS	ASAR R. SULTAN	Nunungan
11	MAGSAYSAY NATIONAL HS	KHEL ELMAR A. VENDIOLA	MAGSAYSAY
12	PANTAO RAGAT AGRO-IND HS	ASHRAIDAH D. MICAWAYAN	Pantao RAGAT
13	MASIBAY INTEGRATED SCHOOL	ACE SUGANOB	NUNUNGAN
14	BANSARVIL NATIONAL HIGH SCHOOL	SAHARA JANE D. BANGA	KAPATAGAN WEST
15	BANSARVIL NATIONAL HIGH SCHOOL	EDETTE P. LUMACAD	KAPATAGAN WEST
16	MATAMPAY INTEGRATED SCHOOL	JA HARA M. RASCAL	MATUNGAO
17	DIEGO H. PATIGAYON NATIONAL HIGH SCHOOL	BERNABE T. EROY JR.	KOLAMBUGAN
18	DIEGO H. PATIGAYON NATIONAL HIGH SCHOOL	RASELYN R. LOPEZ	KOLAMBUGAN
19	LALA NATIONAL HIGH SCHOOL	JANE T. JAICTIN	LALA CENTRAL
20	Lanao del Norte Provincial Science and Technology High School	IVY LYNETTE O. SAYSON/TWG	TUBOD EAST
21	Lanao del Norte Provincial Science and Technology High School	LOID JAY B. KADILE/TWG	TUBOD EAST
22	PANOLOON NATIONAL HIGH SCHOOL	MARIENE WILLA MAY J. BULAYBULAY	SAPAD
23	PANOLOON NATIONAL HIGH SCHOOL	MEILFLOR O. MADIDIS	SAPAD
25	LANAO DEL NORTE NATIONAL COMPREHENSIVE HIGH SCHOOL	TRAZY ANN N. TUASTOMBAN	BAROY NORTH
26	MAGUINDANAO INTEGRATED SCHOOL	FAHAD T. SARIP	
27	KAPATAGAN NATIONAL HIGH SCHOOL	MYLINDA T. ALISON/TWG	KAPATAGAN CENT
28	KAPATAGAN NATIONAL HIGH SCHOOL	ANTONIO B. BOLOCON JR.	KAPATAGAN CENT
29	LANAO DEL NORTE NATIONAL COMPREHENSIVE HIGH SCHOOL	GLADYS S. OQUINA	BAROY NORTH
30	Lala Proper Integrated School	WELLIE Y. ANCIS	LALA NORTH DISR
31	GERONIMA CABRERA NATIONAL HIGH SCHOOL	RITCHEL L. MARCERA	KOLAMBUGAN



31	GERONIMA CABRERA NATIONAL HIGH SCHOOL	RITCHEL L. MARCERA	KOLAMBUGAN
32	GERONIMA CABRERA NATIONAL HIGH SCHOOL	LOIDA A. CELERIO	KOLAMBUGAN
33	LININDING INTEGRATED SCHOOL	HIDAYA S. HADJI JAMAL	TAGOLOAN DISTRICT
34	MARCELA T. MABANTA NATIONAL HIGH SCHOOL	AZELLAH M. NAGA	KAUSWAGAN
35	ABDUL AZIS LIWALUG NATIONAL HIGH SCHOOL	NARIMAH R. AZIS/ <b>TWG</b>	MATUNGAO
36	ABDUL AZIS LIWALUG NATIONAL HIGH SCHOOL	SITTIE M. SIRAD	MATUNGAO
37	LANAO DEL NORTE NATIONAL COMPREHENSIVE HIGH SCHOOL	CRISLYN O. REGIS	BAROY NORTH
38	LANAO DEL NORTE NATIONAL COMPREHENSIVE HIGH SCHOOL	ESTEWARD P. BAGUIO	BAROY NORTH
39	TEOFILA C. QUIBRANZA NATIONAL HIGH SCHOOL	VERNIE O. LAGCAO	
40	BALO-I NATIONAL HIGH SCHOOL	HANIFA A. CALANDADA/ <b>TWG</b>	Baloi NHS
41	Carusa Integrated School	Daison Anthony V Monter/ <b>TWG</b>	Kapatagan West
42	Carusa Integrated School	Charity May Alvarez	Kapatagan West
43	BALO-I NATIONAL HIGH SCHOOL	AINON MARDIYA M. DIATOR	BALO-I EAST
44	MARCELA T. MABANTA NATIONAL HIGH SCHOOL	CLIFTON C. DUAVIS/ <b>TWG</b>	KAUSWAGAN
45	Sultan Naga Dimaporo Memorial Integrated School	Nadjifah Sanayon Bayao	SND CENTRAL
46	Sultan Ali Dimaporo Memorial Integrated School	ADANIE A. ARUMPAC	SND EAST
47	KAWIT ORIENTAL INTEGRATED SCH	ELSIE C. GENERALAO	KAUSWAGAN
48	KAWIT ORIENTAL INTEGRATED SCH	HELMA J. ARIOLA	KAUSWAGAN
49	TEOFILA C. QUIBRANZA NATIONAL HIGH SCHOOL	JINKY V. PEPITO	
50	RAMAIN INTEGRATED SCHOOL	AISAH B. DANSAL	MUNAI
51	ARSENIO A. QUIBRANZA NATIONAL HIGH SCHOOL	CHATTY O. GONZAGA	Tubod East
52	LINAMON NATIONAL HIGH SCHOOL	SIANN ALMA FE P. DUQUE	LINAMON
53	LINAMON NATIONAL HIGH SCHOOL	MARICEL C. DADULA	LINAMON
54	LANAO DEL NORTE NATIONAL COMPREHENSIVE HS	LEDESMA A. VISITACION	BAROY NORTH
55	ARSENIO A. QUIBRANZA NATIONAL HIGH SCHOOL	ROSALIE B. MORALES	TUBOD EAST
56	Marcela Mabanta NHS	AILLENE MAE B. DADULA	Kauswagan
57	TANGCAL NATIONAL HIGH SCHOOL	CHERYLL I. BALANAY	Tangcal
58	BERUAR INTEGRATED SCHOOL	NAMRAIDA B. BUANDING	
59	DIOSDADO YAP SR. NATIONAL HIGH SCHOOL	CATHERINE T. PEÑAS	BAROY SOUTH
60	PIKALAWAG INTEGRATED SCHOOL	JESSELYN C. ZARAGOZA	SND DISTRICT