

REPORT OF AMERICAN CHEMICAL SOCIETY (ACS) NIGERIA COMMITTEE ON ACTIVITIES AND OUTREACHES 2025

Chair: Dr. Felicia Ejiah

Committee: Activities and outreaches

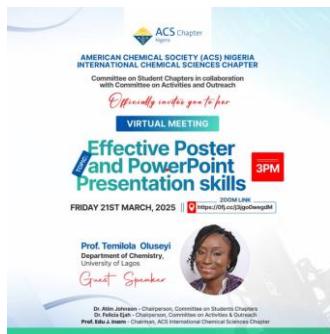
Members of committee: 20

American Chemical Society (ACS) Nigeria, Committee on Activities and Outreaches was saddled with the responsibility to plan and organize high-quality activities for the Chapter including community-based outreach programs, products, and services. Plan and organize Chapter events such as Chemists Celebrate Earth Week and National Chemistry Week, provide opportunities to connect chemists with their local communities in an effort to improve the public's perception of chemistry.

As a committee, we were able to organize four programs comprising of an event for each quarter. Below is a summary of the quarterly events.

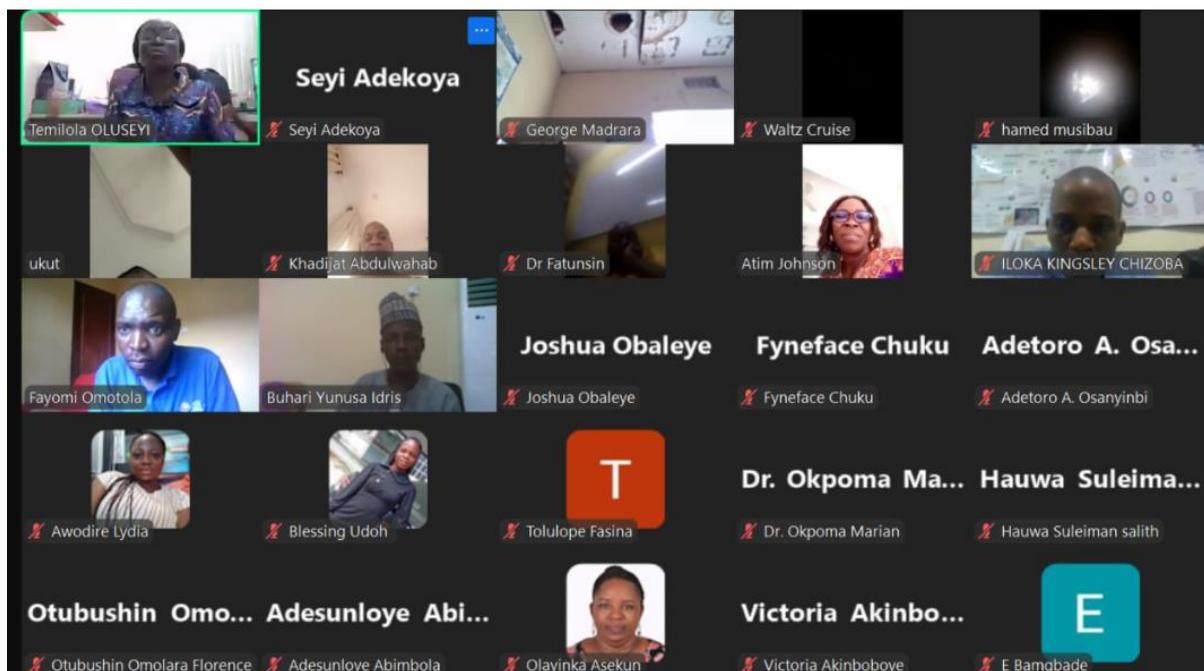
ACTIVITY	DATE	TOPIC	COORDINATOR	GUEST SPEAKERS
Program on effective Power point Presentation	March 21 st 2025	Effective poster and power point presentation skills	Dr. Atim Johnson and Dr. Felicia Ejiah	Prof. Temilola Oluseyi
CCEW	April 21 st 2025	Glaciers: Hot Topic, Cool Chemistry	Dr. Olubunmi Adewusi	Prof. A. S. Olatunji
Program on Safety	July 24 th 2025	Safety in the Laboratory workplace and Industry	Dr. Felicia Umanah	Prof. Kehinde Olayinka and Eng. Mary Umoh
NCW	October 22 nd 2025	The Hidden Life of Spices	Mr. Okebugwu Ochulo	Prof. Irfan Zaheer Khan

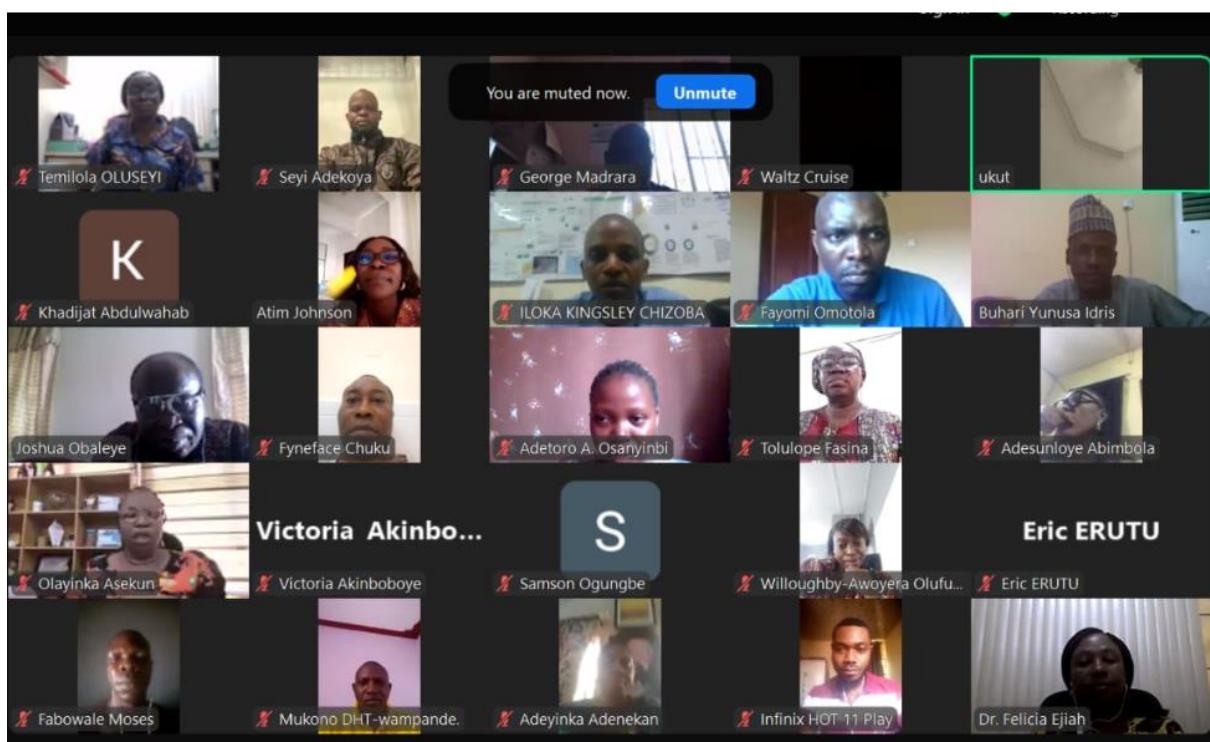
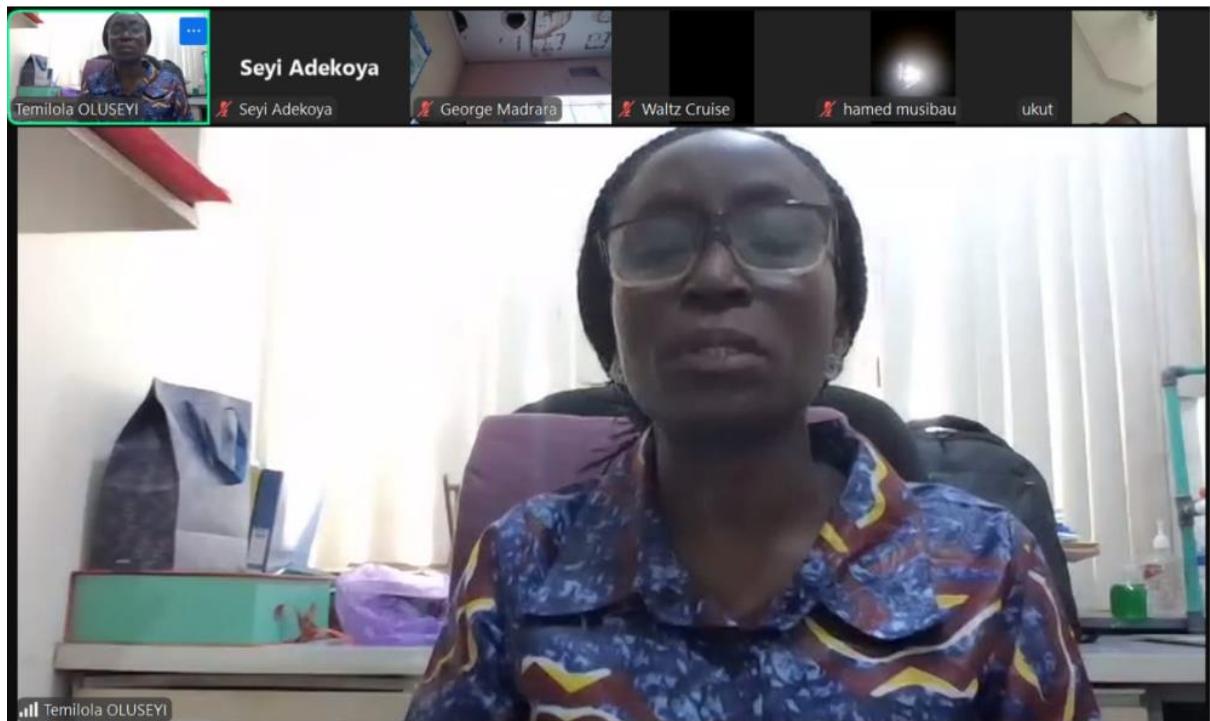
Program on Effective Power point Presentation

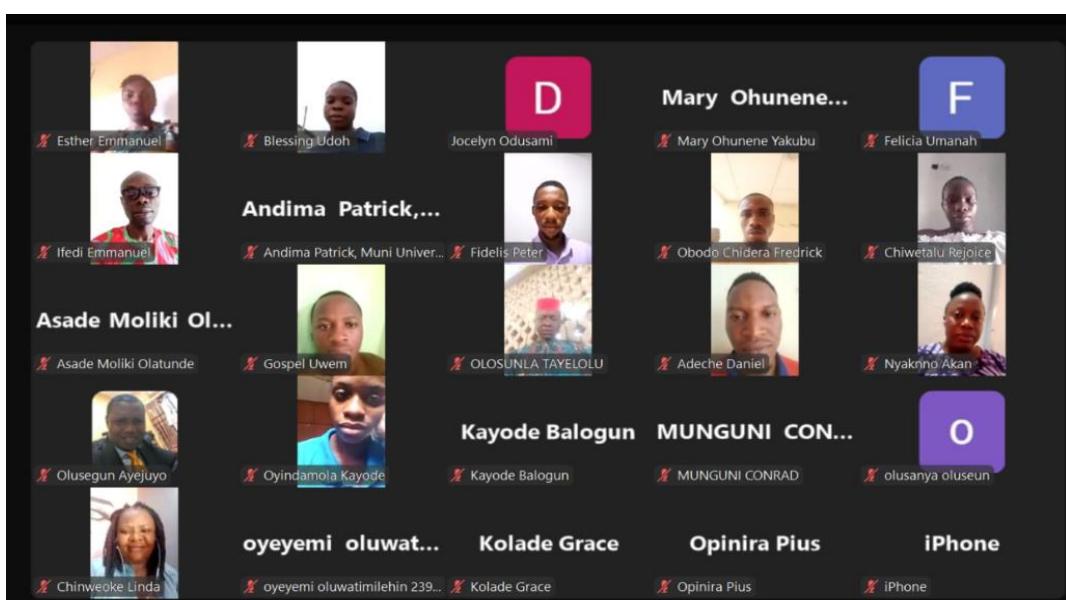
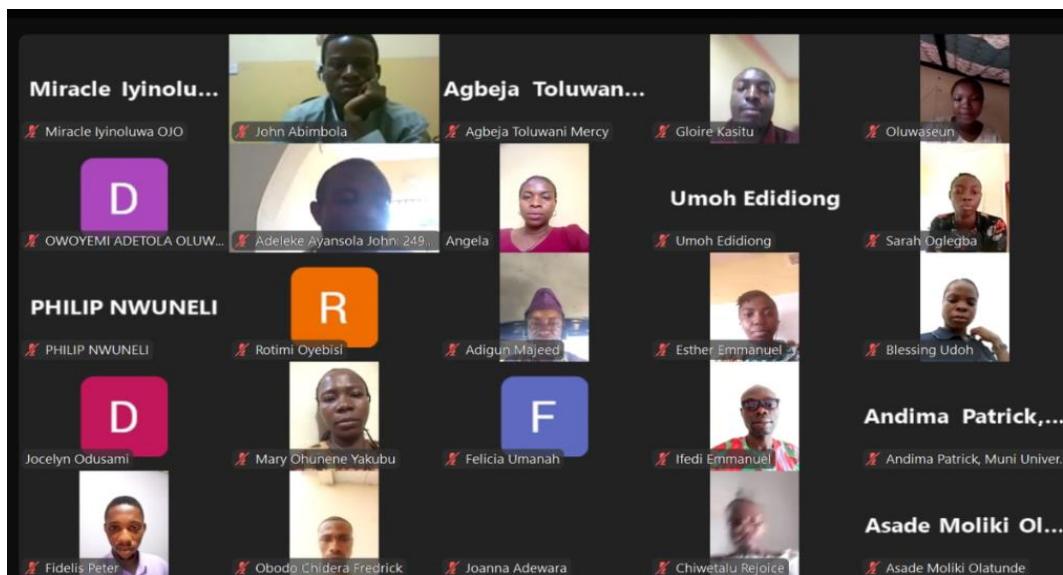
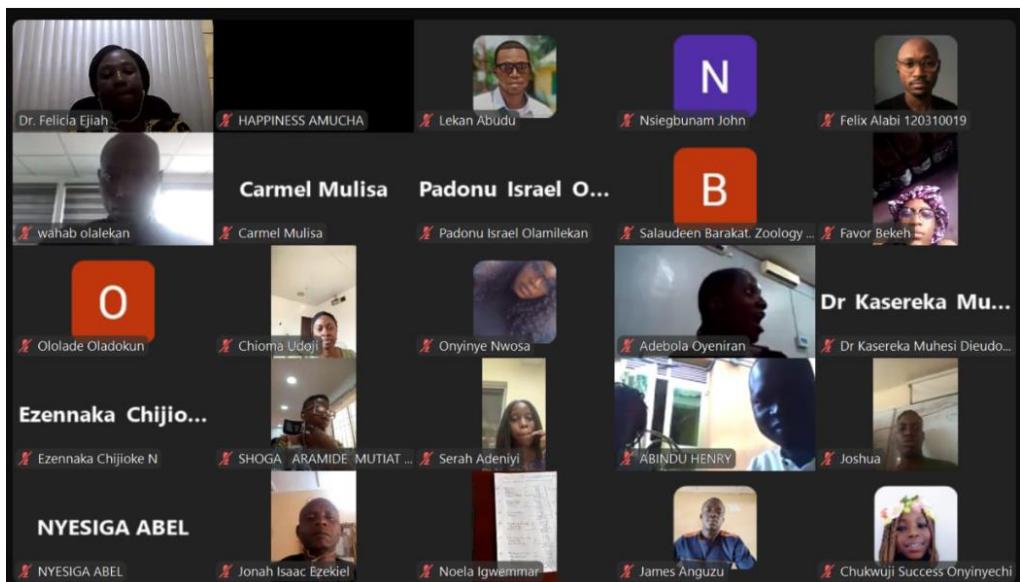


This program was organized by committee on students' chapters in collaboration with activities and outreaches. The event was held on the 21st of March 2025, with Title "Effective poster and power point presentation skills". The online presentation exposed the student chapters on how to prepare award winning poster presentations and effective presentation skills. It was a well attended event with over 100 participants comprising of both undergraduates, graduate and academics. At the end, all students were well informed and expressed their appreciation. The event was organized by Dr. Atim Johnson and Dr. Felicia Ejiah.

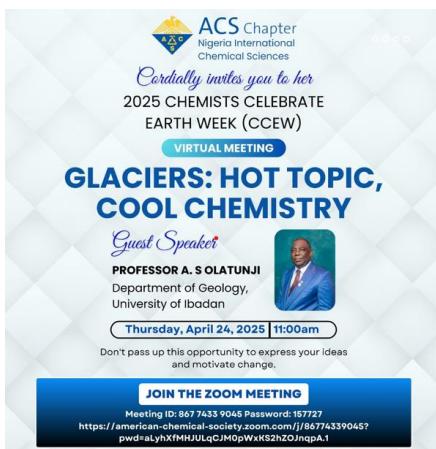
Pictures from Effective Power point Presentation







Chemists Celebrate Earth Week 2025



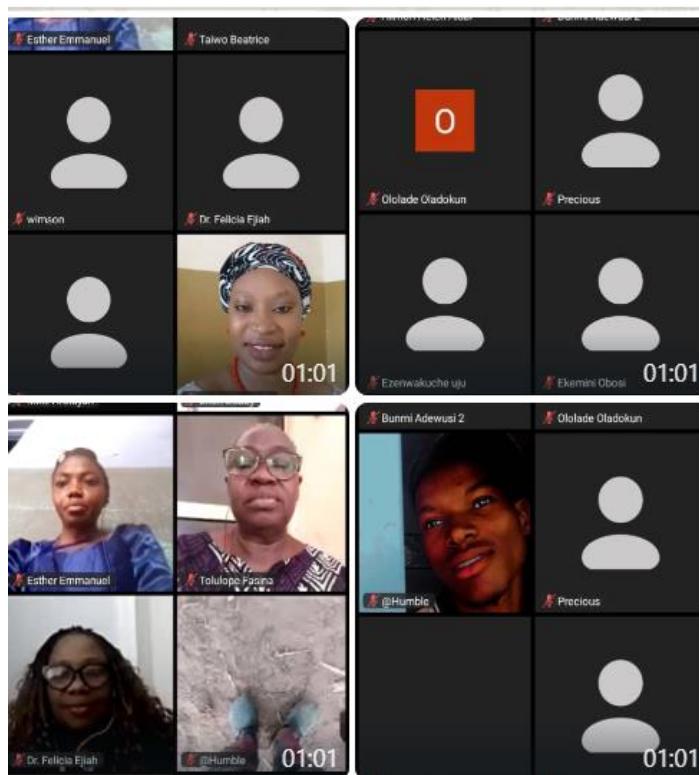
Chemists Celebrate Earth Week (CCEW) was organized by ACS Nigeria on the 24th of April 2025 with the Theme ‘’ **Glaciers: Hot Topic, Cool Chemistry!** ‘’ To promote the positive role that chemistry plays in the world, the guest speaker, Prof. A. S. Olatunji emphasized on Glacier Preservation and glaciers' role in creating a more sustainable world. During CCEW, ACS Nigeria members and chemistry enthusiasts celebrate by coordinating events and communicating the importance of chemistry. This was demonstrated by 15 ACS Nigeria students' chapters as listed below, making presentations on the Theme. Three students' chapters was awarded for their outstanding presentations; Lagos State University (1st), University of Ilorin (2nd), Kola Daisi University (3rd). The event was attended by over 120 students and academics.

Dr. Olubunmi Adewusi coordinated the events with her team; Dr. Atim Johnson, Esther Emmanuel, Dr. Felicia Ejiah.

S/N	AFFILIATION	CCEW Presentation Topics
1	University of Uyo	The Chemistry of Ice: Why Glaciers Don't Just Melt Instantly – Exploring hydrogen bonding, heat capacity, and phase changes in glacier formation.
2	University of Lagos	Glaciers as Earth's Coolant: How Chemistry Controls Climate – The role of albedo, CO ₂ absorption, and feedback mechanisms.
3	University of Ibadan	From Vapor to Ice: The Chemistry Behind Glacier Formation – Phase transitions and nucleation processes in the atmosphere.
4	University of Calabar	Chemical Records in Ice Cores: Glaciers as Climate Time Machines – How trapped gases and isotopes reveal Earth's climate history.
5	Federal University of Wukari	Salt and Ice: How Chemistry Controls Glacier Melting

		<ul style="list-style-type: none"> – The effect of solutes like salt on freezing point depression and ice stability.
6	University of Ilorin	<ul style="list-style-type: none"> Carbon Capture in Ice: Glaciers as Natural CO₂ Sinks – The chemistry behind gas trapping and storage in glaciers.
7	Ladoke Akintola University of Technology Ogbomoso	<ul style="list-style-type: none"> Acid Rain and Glacial Chemistry: A Slow Burn – The long-term chemical effects of acid deposition on glacial environments.
8	Federal University Otueke	<ul style="list-style-type: none"> Cold Catalysts: Enzymes and Chemical Reactions in Glacial Microbes – Biochemical chemistry in extreme cold environments.
9	Kola Daisi University	<ul style="list-style-type: none"> Glacial Dust and the Ocean: Chemistry Linking Ice and Ecosystems – How chemical nutrients from glacial dust affect marine chemistry.
10	Joseph Sarwuan Tarka University Markurdi	<ul style="list-style-type: none"> Antifreeze Proteins in Nature: Chemical Defense Against Freezing – Biochemical adaptations in organisms living in glacial areas.
11	University of Nigeria Nsukka	<ul style="list-style-type: none"> Glacier-Formed Minerals: A Cool Source of Elemental Chemistry – How glacial movement impacts mineral weathering and geochemistry.
12	Sokoto State University	<ul style="list-style-type: none"> Glacial Melt and Ocean Chemistry: The Salty Side of Climate Change – The impact of freshwater input on ocean salinity, density, and chemical circulation
13	River State University of Science and Technology	<ul style="list-style-type: none"> Isotopes in Glacial Ice: Chemistry Clues to Earth's Past Temperatures – Using oxygen and hydrogen isotopes to track historical climate trends.
14	Olusegun Agagu University of Science and Technology	<ul style="list-style-type: none"> Chemical Weathering Beneath Glaciers: Nature's CO₂ Filter – How glacial meltwater drives reactions that remove CO₂ from the atmosphere.
15	Lagos State University	<ul style="list-style-type: none"> Supercooled Water and Ice Nucleation: The Hidden Chemistry of Glacial Beginnings – Exploring how water can remain liquid below 0°C and the chemistry that triggers sudden freezing, crucial in glacier formation.

Pictures from CCEW 2025



ACS Nigeria Program on Safety



ACS Nigeria, Committee on Activities and Outreaches on behalf of ACS Nigeria Chapter organized a virtual safety program on "Safety in the Laboratory Workspace and Industry" on the 12th of July 2025. The event had two speakers, one from academia and the second from industry. Prof. Olayinka from the University of Lagos highlighted on the topic "Chemical Safety and Material Science". Her presentation gave an in-depth knowledge of laboratory safety especially for undergraduate and postgraduate students in chemical science. Eng. Mary Umoh, from Exxon Mobil reiterated the importance of safety, not only in the academic laboratories but also in the industry, especially for intending students preparing for student industrial work experience scheme (SIWES). This event was organised at a time that students were preparing for this scheme, it was well appreciated by all the students present. Both speakers emphasized on safety as a way of life.

The event recorded over 120 attendees. Dr. Felicia Umanah with her LOC comprising of Mr. Iheme Chinaemerem Ebenezer, Mary Yakubu and Dr. Felicia Ejiah organized the event on behalf of ACS Nigeria, Committee on Activities and Outreaches.

ACS Nigeria National Chemistry Week



ACS Nigeria joined the globe to celebrate National Chemistry Week (19th-25th October 2025). It was a week of interesting and exciting activities by the ACS Nigeria Student Chapters. The week commenced with Home chemistry day, Social Media Challenge; Show your spice lab on the 19th of October, 2025. Each student chapter was encouraged to engage in home chemistry to show their spice lab.

The virtual day celebration focused on the Theme “The hidden Life of Spices”. The hidden life of spices by prof. Irfan zaheer khan was an inciting and excellent presentation which centred on impact of spices on human health and disease, spices packed with antioxidants and anti-inflammatory compounds. The audience cut across students, academia, health enthusiasts, and the general public. During the event, each student chapter also made presentations on the Theme, with 22 student chapters making brilliant presentations which was assessed. At the end, four student chapters emerged as winners as follows; University of Lagos (1st), University of Ibadan (2nd), Benue State University (3rd), University of Abuja (3rd). Other activities for students during NCW include fastest fingers in answering questions and gift awards. The program had over 150 participants.

The NCW also saw ACS Nigeria student chapters participating in Factory tour-visit to spice processing/food factory, in addition to School and community outreach-Hands on activities. Awards to Best event, Event that attracted highest number of attendees or impacted highest number of people received recognitions. It was a week packed events to celebrate the National Chemistry Week.

This laudable long week program was organized by Okeh Ochulo (LOC chair), with members, Dr Nnanake-Abasi Offiong, Chemist Faith Sutu Patrick-Inezi, Chika Nnabuihe, Dr. Atim Johnson and Dr. Felicia Ejiah.

S/N	STUDENT CHAPTER	TOPIC
1	Federal University of Petroleum Resources Effurun (FUPRE)	The Sweet Aroma of Cinnamaldehyde: Chemistry of Cinnamon
2	Michael Okpara University, Umudike	Phytochemicals in Spices: Nature's Hidden Pharmacy
3	Federal University Dutsin-ma, Katsina state, Nigeria. (FUDMA)	Turmeric as Nature's Golden Medicine: Anti-inflammatory and Healing Powers"
4	Niger Delta University (NDU)	Spices as Natural Preservatives: Traditional Knowledge Meets Modern Food Science
5	Federal University of Technology, Minna	Allicin: Garlic's Secret Weapon Against Infections
6	Benue State University	The Chemistry of Cumin: Why Turmeric Glows Yellow
7	Ebonyi State University, Abakaliki	Nanotechnology and Spices: Innovative Uses in Modern Medicine
8	Federal University Dutse, Jigawa	The Hidden Chemistry of Cloves: Eugenol and Its Uses
9	KolaDaisi University, Ibadan	The Chemistry Behind Flavor: How Spices Stimulate Taste and Aroma
10	Joseph Sarwuan Tarka University Markurdi	Ginger and Human Health: From Digestion Aid to Cold Remedy
11	Akwa Ibom State University	Cinnamon in Ancient Egypt, Rome, and Beyond
12	University of Lagos	Cinnamon and Blood Sugar Control: Science Behind the Spice
13	University of Abuja	Climate Change and the Future of Spice Production
14	University of Uyo	The Global Spice Market: Opportunities and Challenges
15	Ladoke Akintola University of Technology Ogbomoso	Nutmeg's Secret Chemistry: Myristicin and Its Psychoactive Side
16	University of Ibadan	Chili Peppers in Medicine: Pain Relief and Metabolism Boost
17	University of Calabar	Ginger as a Symbol of Energy and Vitality in Traditional Medicine
18	Federal University of Wukari	From Traditional Dishes to Modern Pharmaceuticals: The Journey of Chili
19	Nnamdi Azikiwe University, Awka	Crocin and Safranal: The Chemistry of Saffron's Colour and Aroma
20	University of Ilorin	Hidden Dangers: The Difference Between True and Cassia Cinnamon
21	Yaba College of Technology	Spices in Cosmetics and Perfumery: Beyond the Kitchen
22	University of Nigeria, Nsukka	Nutmeg and Colonial History: A Spice Worth Fighting for

Pictures from NCW 2025

