



PSHS - CMC

CISD Gazette

Official Newsletter of the Curriculum and Instruction Services Division

VOLUME 4, ISSUE 1

SEPTEMBER 30, 2015

INSIDE STORY

- ⇒ PH Team Bags Gold as the Undeclared Champion in ASEAN Junior Science Odyssey
- ⇒ 2 CMC Scholars Receive Plaque of Recognition from DOST-X
- ⇒ STUDENTS LEARN FROM LOCAL EXPERTS IN THE 2ND PHILIPPINE INTERNATIONAL SCIENCE FAIR
- ⇒ PSHS System joins the DOST NSTW Celebrations; CMC participates in the Robotics and Interactive Science Exhibit
- ⇒ DIGITAL INTERACTIVE BOARD BY PISAY STUDS
- ⇒ PSHS-CMC joins the PSHS Robotics and Science Interactive Exhibits of NSTW 2015
- ⇒ NUTRITION MONTH 2015 CULMINATING ACTIVITY
- ⇒ Habits of Highly Effective Educators
- ⇒ PSHS Mandate
- ⇒ Seminars, Trainings and Conferences
- ⇒ PSHS System Conducts Initial Curriculum Writeshop for Specialization Years
- ⇒ PSHS Scholars Join Sakura Science Exchange Program
- ⇒ STUDENTS' RESEARCHES FOR SY 2014 – 2015

PH Team Bags Gold as the Undeclared Champion in ASEAN Junior Science Odyssey



Undeclared. The Philippine Team composed of six students from Eastern Visayas and Central Mindanao campuses of the Philippine Science High School maintained the undeclared slate of the country in its four-year participation in the APTJSO. Also in the photo are Dr. Josette Biyo, Director of the Science Education Institute, and Dr. Alexander Lim, Assistant Director and Head of Science and Technology Division of the ASEAN Secretariat

The Philippine Team wins the overall award, as the undeclared champion for four straight years since 2012, in the recently concluded 4th ASEAN Plus Three Junior Science Odyssey (APTJSO) held in Tangerang, Indonesia. Six students from Eastern Visayas and Central Mindanao campuses of the Philippine Science High School made their mark as they demonstrated their skills in performing laboratory experiments in Biology, Chemistry, Physics and Innovation, beating teams from 13 other countries including 10 ASEAN-member countries, plus Sweden, Taiwan, China, and Korea. Their winnings include a gold medal and an Honorable Mention in Physics, a silver medal in Biology, a Bronze medal and an Honorable Mention in Chemistry, and a Bronze medal and an Honorable Mention in Innovation. The Team also won one gold and one silver in the Project Presentation Category, and an Honorable Mention in Poster Presentation.

The Philippines has been the champion for four straight years since the APTJSO started in 2012 in Brunei Darussalam, and maintained their feat in Korea in 2013, and in Thailand in 2014.

State-of-the-art laboratory facilities were provided by Indonesia's Agency for the Assessment and Application of Technology (BPPT) through Geostech, located at PUSPIPISTEK, a science complex that houses laboratories and other facilities related to technology assessment and application. Students and teachers also toured the Baruna Jaya IV, a marine research and survey vessel of the BPPT, and were given lectures on Indonesia's marine biodiversity and the various projects undertaken to protect the marine environment.

In 2016, the Philippines will be hosting the 5th APTJSO as its share in nurturing gifted students in the sciences from the ASEAN region as well from other countries. The ASEAN Center for the Gifted in Science (ACGS), based in the Republic of Korea, is the overall organizer of competition, in cooperation with the ASEAN-member countries, China and Japan.

2 CMC Scholars Receive Plaque of Recognition from DOST-X



The Department of Science and Technology (DOST) in Region X organized a Science Nation Tour dubbed as "Agham na Ramdam," a nationwide road show aimed at making science "felt" by the average Filipino, on August 20-23, 2015 with the theme: "Inspire, Engage, Convert."

One of the activities was the giving of Plaque of Recognition to YES Award-ees in the year 2014 which was scheduled on August 23, 2015, which, two of CMC scholars were recipients of this recognition, namely: Isnihaya Magumpara and Royce Val Malalis. This recognition was given to deserving pupils and students who have brought pride and honor to the country by winning in the international Science and Math competitions. This was part of the effort of the DOST in Region 10 to integrate science in the efforts towards progress and inclusive growth.

STUDENTS LEARN FROM LOCAL EXPERTS IN THE 2ND PHILIPPINE INTERNATIONAL SCIENCE FAIR



The science fair winners happily posed with their expert-mentors and with the PSHS team organizers during the closing ceremony of the 2nd Philippine International Science Fair.

High school students from science schools in seven countries had the chance to be mentored by Filipino experts during the recently concluded 2nd Philippine International Science Fair (PISF) held on May 31 to June 4, 2015 at the First Pacific Leadership Academy, Antipolo City.

Organized by the Department of Science and Technology - Philippine Science High School System (DOST-PSHS) in partnership with the First Pacific Leadership Academy, the biennial fair aims to promote a culture of science among the youth.

This year's fair tackled issues concerning the environment and climate change with the theme **"Innovate to Mitigate."** Students from Indonesia, Japan, Korea, Malaysia, Singapore, Sweden and Philippines closely interacted with Filipino specialists who gave them valuable feedback and advice on their mini-projects during the prototyping sessions. For this activity, the participants were divided into teams and each team had to develop product prototypes, design, or project proposal of innovations that would mitigate or prevent disasters. Three scenarios were given, namely *Lake Management: Saving Taal Lake*, *Urban Living: Making Metro Manila a Safer Place to Stay*, and *Sustaining Permaculture Farming*.

According to Ceciree Villanueva of Cavite National Science High School, UP Diliman's Geology and Environmental Science Professor, Dr. Carlos Primo David, advised their team to focus on the root of the problem, on ways to stop people from throwing garbage into the creek.

Their team's project, which they dubbed as **"Project Sphyder (Specialized Physical Debris Remover)"** was chosen as "Best Project" under Scenario 2. The project was conceived during a study tour in Marikina wherein Villanueva and her group-mates, **Demi Antonette Jacomilla of PSHS Central Mindanao**, Chiara Borgueta of PSHS Eastern Visayas, Justine Romero of PSHS Bicol, and Rohith Srinivas of Raffles Institution in Singapore, learned that during heavy rain, garbage clogs the water under the bridge along Marikina River in Brgy. Tumana. SPHYDER, they said, is a filter-like technology especially designed to remove the garbage faster, more efficiently and cost-effectively which eventually cleans up the water.

Dr. David and UP Diliman's Environmental Science and Meteorology Associate Prof. Dr. Tolentino Moya also taught them that biological and

chemical debris also pollute bodies of water aside from physical debris such as garbage.

Another activity, called "Meet the Experts," gave the young participants a chance to listen to Filipino experts who shared their career experiences and knowledge. They were Dr. Perry S. Ong, professor and head of the Biodiversity Research Laboratory in UP Diliman's Institute of Biology and Dennis G. de la Torre, Research Fellow of the Center for Local and Regional Governance in UP Diliman's National College of Public Administration and consultant of the Special Committee on Climate Change in the House of Representatives.

Other scientists who shared their expertise during the science fair were UP Diliman's Biology Professor Dr. Zubaida U. Basiao, UP Diliman's Biology Associate Professor Dr. Luis Ma. Garcia and Philippine Rice Research Institute Supervising Science Research Rizal G. Corales and Dr. Ricardo F. Orge.

Additionally, a design thinking workshop, study tours, teachers' forum, and poster making contest were held during the four-day science fair.

PSHS Executive Director Larry L. Cabatic expressed his appreciation to all the participants, partner agencies, media partners and the organizers for making the event a successful one.

The Over-all Project Head of the 2nd PISF was Ms. Virginia Andres, Campus Director of PSHS-Main Campus with active participation of all the PSHS Executive Committee members and their respective campuses. (S&T Media Service/Pisay Info Team)



PSHS System joins the DOST NSTW Celebrations; CMC participates in the Robotics and Interactive Science Exhibit



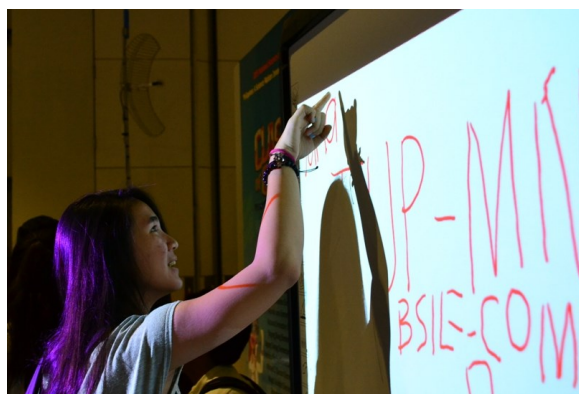
In line with the celebration of the National Science and Technology Week (NSTW) spearheaded by the Department of Science and Technology, the Philippine Science High School System (PSHSS) through its regional campuses conducted the one-day robotics and interactive science exhibit entitled “Pisay, maka-science dito!” on July 27, 2015 from 9:00 AM to 4:00 PM at the Main Stage, SMX Convention Center, Mall of Asia (MOA), Pasay City.

The PSHS scholars showcased their science interactive exhibit and robotic projects to visitors and guests, most particularly to the elementary and secondary students coming from private and public schools in nearby areas. CMC sent Abdulhakim C. Abantas, Ivan Gabriel P. Etorma, Effie Mae S. Sabaot, Carlos Martin L. Enriquez and Czarina Therese C. Acut to man the two displays in the interactive science exhibits and to entertain guests and visitors. On the other hand, there were three students - Ivan Richmond T. Jumawan, Aline W. Taladua and Briah Blaire L. Buot - assigned in the robotics demonstration who welcomed and entertained the guests and visitors. In this activity, three faculty chaperones accompanied the students to monitor and ensure the welfare and safety of the student-exhibitors, and at the same time, to assist in the ushering

of guests and documentation of the said activity. They were Christopher P. Ramayla, Ronn Marr M. Perez and Anwar Zeus S. Pattuinan, together with the Campus Director, Engr. Lorvi B. Pagorogon and the CISD Chief, Richard B. Jumawan.

For the student-exhibitors, it was really a learning and fun-filled day as the event showed to the viewers the fun and wonderful world of science. The NSTW aims to bring science and technology closer to the people by letting them experience the vital role of science, technology, and innovation in improving the people’s quality of life, protecting the environment and contributing to national development, particularly in poverty alleviation.

DIGITAL INTERACTIVE BOARD BY PISAY STUDS



A student inscribed messages on a digital interactive board using only her finger at the exhibit area of the Department of Science and Technology’s (DOST) Philippine Science High School System during the National Science and Technology Week (NSTW) recently held at SMX Convention Center in Pasay City. The interac-

tive board is equipped with sensors, allowing anyone to write something and erase what is written by simply wiping one’s hand on it. It is among the innovative technologies developed by students from Philippine Science High School exhibited in NSTW. (S&T Media Service)

PSHS-CMC joins the PSHS Robotics and Science Interactive Exhibits of NSTW 2015

Anwar Zeus S. Pattuinan

As part of DOST's National Science and Technology Week (NSTW), PSHS-CMC was one of the Pisay campuses which exhibited during the one-day PSHS Robotics and Science Interactive Exhibits held on July 27, 2015 at the SMX Convention Center, Pasay City.

PSHS-CMC student-exhibitors were Czarina Therese C. Acut, Abdulhakim C. Abantas, Ivan Gabriel P. Etorma, Carlos Martin L. Enriquez and Effie Mae S. Sabaot for the Science Interactive exhibits, while Ivan Richmond T. Jumawan, Aline W. Taladua, and Briah Blaire L. Buot were for the Robotics exhibit. The scholars were accompanied by teacher-chaperones, Mr. Christopher P. Ramayla and Mr. Anwar Zeus S. Pattuinan, who are both Physics teachers of this campus. Mr. Ronn Marr M. Perez was also there as one of the NSTW working committee members.



The student-exhibitors and teacher chaperones (L-R): Mr. Christopher Ramayla, Briah Blaire Buot, Ivan Richmond Jumawan, Mr. Ronn Marr Perez (Working Committee), Effie Mae Sabaot, Abdul Hakim Abantas, Carlos Martin Enriquez, Ivan Gabriel Etorma, Mr. Anwar Zeus Pattuinan, Mr. Richard Jumawan (observer), Czarina Therese Acut, and Aline Taladua. Photo courtesy: CPRamayla

The Robotics exhibit consisted of 3 different robot designs with different functions, and each one can be controlled via bluetooth through android devices installed with a LEGO NXT app. The robots were designed and built by the student-exhibitors with the guidance of Mr. Ramayla.

The Science Interactive exhibit consisted mainly of induction setups and a conservation of energy apparatus. The inductor setups were composed of the inductor radio, various coils with LEDs, running lights, and modified generator to slightly electrocute visitors. The conservation of energy apparatus was designed to be a backward bowling game. These exhibits were designed and built by the student-exhibitors, the Physics teachers of this campus, and the most of inductor apparatus' circuit components were assembled by Mr. Radel D. Rayon.

The exhibit program started at 9:00AM, welcomed by the Executive Director Dr. Larry L. Cabatic, with an inspirational message from an alumna of the Main Campus, Dr. Ma. Corazon de Ungria. The ribbon cutting followed, which was led by the EXECOM members and DOST Usec. Dr. Rowena Cristina Guevara.



Ribbon Cutting: (L-R) Dr. Warren Cordeta (CVIS), Ms. Lilia Habacon (CLC), Usec. Rowena Cristina Guevara, [holding the scissors is] Dr. Ma. Corazon de Ungria, Dr. Larry L. Cabatic, and Dr. Conrado Rotor (CARC). Behind are Engr. Lorvi Pagorogon (CMC) and other campus directors. Photo by AZSP

Eleven PSHS campuses (Main, IRC, CVC, CARC, CLC, BRC, WVC, CVIS, EVC, SMC, and SRC) had their own exhibits as well, while representatives from PSHS' young campuses CRC (Butuan) and CBC (Batangas) were there as observers. Visitors of the exhibit consisted mainly of pupils, high school and college students from different schools in NCR and nearby regions, together with their teachers.



PSHS' Executive Director Dr. Larry Cabatic getting electrified with CMC's exhibit. Photo by AZSP



Preparation of exhibits. Photos by CPRamayla and by AZSP

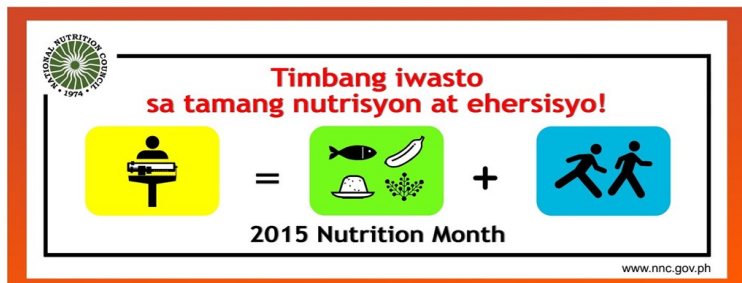
Exhibitors in action. Photos by CPRamayla and AZSP



The exhibit ended around past 4:00PM just as President Benigno Aquino's final SONA was about to start, which was projected on the main stage's three screens.

NUTRITION MONTH 2015 CULMINATING ACTIVITY

By: Lloyd B. Logronio



The PHILIPPINE SCIENCE HIGH SCHOOL –CENTRAL MINDANAO CAMPUS recently conducted the Nutrition Month 2015 Culminating Activity on July 31, 2014 with this year's theme: "Timbang Iwasto sa Tamang Nutrition at Ehersisyo."

The theme focused on the growing problem of obesity in the Philippines. This aimed to make people aware of the importance of proper nutrition, physical exercise and preventing obesity since there is a growing number of Filipinos who suffer from excessive weight gain through the years.

Studies have shown that child undernutrition particularly in the first 1,000 days of life can lead to obesity in adulthood. Infants (0 to 1 year old) who experience growth failure in early life and rapid weight gain in childhood might be at a risk of adult obesity and non-communicable diseases such as cancer, diabetes, cardiovascular problems liver diseases, musculoskeletal disorders-arthritis and gallbladder diseases-gallstones.

Obesity is caused by dietary changes brought about by increasing urbanization and globalization where there is an increased trade liberalization making a large variety of processed foods available, as well as an increase in the frequency of dining and having eating habits influenced by mass media. The prevalence of obesity may also be attributed to "high and fast living where lifestyle is sedentary, fast foods are abundant and planning and preparation of nutritious food for the family is not a prime importance."

Obesity has not only affected adults but children and teenagers too. According to the National Nutrition Survey, overweight and obesity prevalence in children is 5%, while in teenagers it is 8.3%.

One's weight status can be determined through the following Basal Mass Index (BMI):

BMI	WEIGHT STATUS
18.5 and below	Underweight
18.5 - 24.9	Normal
25.0 - 29.9	Overweight
30.0 and above	Obese

(Source: WHO)

In order to lessen the untoward effects of obesity and overweight, the culmination activity was highlighted with Zumba Exercise led by the Zumba Instructor Neal Alvin R. Dumaguing of Aerobics Jazz Fit, Iligan City. This activity was participated by the scholars, faculty and staff of the campus. The campus

school nurse also intensified the information campaign on proper nutrition. A nutritious meal was also served at the school canteen during lunch time.

In terms of daily food intake, it is advised that consumers should be aware of the nutritional value of the food they consume.

Plan healthy and eat healthy.



Habits of Highly Effective Educators



The success of an organization, like in academic institutions, is made possible because of the effective employees who belong to such group. It is true that in order for the organization to move forward and be successful to its defined vision, mission, goals and objectives, an employee must be responsive, effective and efficient.

In a book authored by an American educator Stephen R. Covey, he enumerated 7 habits that an educator must possess in order to be highly effective.

The first one is to be proactive or being able to control a situation through making things happen or preparing for possible future problems. Goal setting is also a way to be proactive. This is a process of turning one's vision or plan into real action. It is focused on the acquisition of knowledge and the organization of time and resources. Being proactive means more than taking initiatives; it means we are responsible for our own lives, behavior and actions. This is the **Habit of Choice** and the **Principle of Personal Vision**.

Beginning with the end in mind is also a habit that one should have. This is through envisioning a mission and vision. To begin with the end in mind means to start with a clear understanding of our destination. We need to know where we are going in order to better understand where we are now so that the steps we take are always in the right direction. The best way to do this is to prepare a **Personal Mission Statement** as our guiding principle in the journey of our life. This statement focuses on what you want (*character*) and to do (*contributions and achievements*) in the organization and on the values or principles upon which being and doing are based. This is the **Habit of Vision** and the **Principle of Personal Leadership**. Oliver Weidell Holme shared, "What lies behind us and what

lies before us are tiny matters compared to what lies within us."

Putting first things first is also another habit of highly effective person. Time management is a key to this habit. This means setting one's priorities. This can be done by doing the things that must be done first before the other. It is an exercise of independent will toward becoming a principle-centered individual. This is the **Habit of Integrity and Execution** and the **Principle of Personal Management**.

Seek first to understand, then to be understood. This is done through active listening and understanding the experiences of others. It involves a deep paradigm shift of one's individual for it engages empathetic listening to others. Normally, people seek first to be understood, that is, most people listen to the reply; they are either speaking or preparing to speak most of the time. It is the **Habit of Mutual Understanding**.

Think win-win and synergize are the fifth and sixth habit. The first is referred to as win-win negotiation or the fair compromise. This aims to find a solution that is acceptable to both parties and leaves both parties feeling that they have won. It is the **Habit of Mutual Benefit**. Synergizing, on the other hand, is through working together to produce best results. It is the **Habit of Creative Cooperation**.

Sharpening the saw is the seventh habit, and this is through evaluating the direction where a person himself sees to it that he is progressing. According to Hans Selye, "A long, healthy, and happy life is the result of making contributions, of having meaningful projects that are personally exciting and contribute to and bless the lives of others." It is the **Habit of Renewal and Making Commitments** for the general welfare of the organization.

Through time, more skills will be embodied; and with these habits, a person will be more effective, as a leader and as a person, at large. Thus, LIVE, LOVE, LEARN and LEAVE a legacy in your organization!

CHECK YOUR STUDY HABITS!

You can prepare yourself to succeed in your studies. Try to develop and appreciate the following habits:

Take responsibility for yourself

Recognize that in order to succeed you need to make decisions about your priorities, your time, and your resources.

Center yourself around your values and principles

Don't let friends and acquaintances dictate what you consider important.

Put first things first

Follow-up the priorities you have set for yourself, and don't let others or other interests distract you from your goals.

Discover your key productivity periods and places

Is it morning, afternoon, or evening? Find spaces where you can be the most focused and productive. Prioritize this for your most difficult study endeavors.

Consider yourself in a win-win situation

When you contribute your best to a class, you, your fellow students, and even your teacher will benefit. Your grade can then be one additional check on your performance.

First understand others, then attempt to be understood

When you have an issue with a teacher (e.g. a questionable grade, an assignment deadline, etc.) put yourself in the teacher's place. Now ask yourself how you can best make your argument given his/ her situation.

Look for better solutions to problems

For example, if you don't understand the course material, don't just re-read it. Try something else! Consult with the teacher, a tutor, an academic supervisor, a classmate, a study group, or your Guidance Counselor.

Look to continually challenge yourself

Partially adapted from the audio cassette by Stephen Covey, *Seven Habits of Highly Effective People* (Source: <http://www.studygs.net>)

PSHS Mandate



Mandate

To offer on a free scholarship basis a secondary course with special emphasis on subjects pertaining to the sciences with the end in view of preparing its students for a science career. (Sec. 2, RA 3661)

Mission

Operating under one system of governance and management, PSHS provides scholarship in secondary education to Filipino students with high aptitude in Science & Mathematics; prepares its students for careers in science and technology; and to attain a critical mass of professionals and leaders in science and technology towards nation building.

Vision

Philippine Science High School Scholar is the country's leading science high school that prepares its scholars to be world-class Filipino scientists who are dedicated to nation building.

Core Values

The PSHS System adheres to the following core values: Pursuit of TRUTH; Passion for EXCELLENCE; and Commitment to SERVICE.

CISD Newsflash!

2015 SMT Festival. The celebration is moved from September 21-25, 2015 to November 23-27, 2015. The conduct of the festival is scheduled during the National Biotechnology Week Celebration. The change of the schedule is to give ample time to the students for their projects in research to come up with good quality outputs during the Research Display, which is a major focus of the festival.

The division hopes to sustain the practice which was started last year, and hopefully the conduct will be improved under the leadership of Ms. Jasmin C. Esperante, SMT Department Head. The two (2) activities which will be done during the festival are the Region-wide Community Science Fair and the Regional Invitational Quiz Show.

Seminars, Trainings and Conferences



The Curriculum and Instruction Division is very supportive to the professional growth and development among its personnel in order to enhance their potentials. To them keep abreast with the latest issues, trends and development of their own field of specialization, the following faculty members were sent to seminars, trainings and conferences nationwide. To wit:

Richard B. Jumawan, Mathematics Teacher

Attended the Seminar-Workshop on 21st Summer Institute in the Natural Science and Mathematics with the theme "Building Competencies towards the New Curricula" at University of the Philippines Baguio, Baguio City on April 30 – May 2, 2015

Jenefer A. Godinez, Biology/Research Teacher

Attended the Seminar-Workshop on 21st Summer Institute in the Natural Science and Mathematics with the theme "Building Competencies towards the New Curricula" at University of the Philippines Baguio, Baguio City on April 30 – May 2, 2015

Sheila Marie B. Lazaro, Biology Teacher

Attended the Seminar-Workshop on 21st Summer Institute in the Natural Science and Mathematics with the theme "Building Competencies towards the New Curricula" at University of the Philippines Baguio, Baguio City on April 30 – May 2, 2015

Ronn Marr M. Perez, Physics Teacher

Attended the Teacher Training-Workshop on Resilience: Survive and Thrive™ at University of the Philippines Marine Science Institute on July 7, 2015

Anwar Zeus S. Pattuinan, Physics Teacher

Attended the Teacher Training-Workshop on Resilience: Survive and Thrive™ at University of the Philippines Marine Science Institute on July 7, 2015

Richard B. Jumawan, Mathematics Teacher

Attended the Seminar-Workshop on 7 Habits of Highly Effective People – Education Edition at Robbinsdale Residences, Quezon City on July 28-30, 2015

May Flor M. Zaldivar, English Teacher

Attended the Seminar-Workshop on 7 Habits of Highly Effective People–Education Edition at Robbinsdale Residences, Quezon City on July 28-30, 2015

Carlito c. Lariosa, IS Teacher

Attended the Seminar-Workshop on 7 Habits of Highly Effective People–Education Edition at Robbinsdale Residences, Quezon City on July 28-30, 2015

Ma. Genile C. Caballero, *Mathematics Teacher*

Attended the International Seminar in Mathematics Education with the theme “Upgrading the Standards of Teaching Mathematics towards Globalization” at Hotel Conchita, Cagayan de Oro City on August 14-15, 2015

Richard B. Jumawan, *Mathematics Teacher*

Attended the International Seminar in Mathematics Education with the theme “Upgrading the Standards of Teaching Mathematics towards Globalization” at Hotel Conchita, Cagayan de Oro City on August 14-15, 2015

Ronna Y. Magto, *Mathematics Teacher*

Attended the International Seminar in Mathematics Education with the theme “Upgrading the Standards of Teaching Mathematics towards Globalization” at Hotel Conchita, Cagayan de Oro City on August 14-15, 2015

Arvin Paul B. Sumobay, *Mathematics Teacher*

Attended the International Seminar in Mathematics Education with the theme “Upgrading the Standards of Teaching Mathematics towards Globalization” at Hotel Conchita, Cagayan de Oro City on August 14-15, 2015

Jefferson R. Pabalay, *Physics Teacher*

Attended the Career Guidance and Leadership Training Forum (CGLF)

at Mindanao University for Science and Technology, Cagayan de Oro City on August 21, 2015

Christopher P. Ramayla, *Physics Teacher*

Attended the Career Guidance and Leadership Training Forum (CGLF)

at Mindanao University for Science and Technology, Cagayan de Oro City on August 21, 2015

Expertise Sharing in PSHS System

The following faculty members shared their expertise in various PSHS Systemwide activities to advance the curriculum and instruction program. To mention:

Gay Marie Tiu-Madrado, *Chemistry Teacher*

Member, Technical Working Group

2015 PSHSS Readiness Examination

Meeting at The Mabuhay Manor Hotel, Pasay City on August 3-5, 2015

Yvonne H. Branzuela, *Biology Teacher*

Member, Technical Working Group

2015 PSHSS Readiness Examination

Meeting at The Mabuhay Manor Hotel, Pasay City on August 3-5, 2015

Jenefer A. Godinez, *Biology/Research Teacher*

Curriculum Writeshop for Specialization Years of PSHS Curriculum (STEM Research) at Lancaster Hotel, Mandaluyong City on August 10-14, 2015

Arvel L. Huilar, *Computer Science Teacher*

Curriculum Writeshop for Specialization Years of PSHS Curriculum (Computer Science) at Lancaster Hotel, Mandaluyong City on August 10-14, 2015

Perlita M. Requino, *Filipino Teacher*

Curriculum Writeshop for Specialization Years of PSHS Curriculum (Filipino) at Lancaster Hotel, Mandaluyong City on August 10-14, 2015

Anwar Zeus S. Pattuinan, *Physics Teacher*

Curriculum Writeshop for Specialization Years of PSHS Curriculum (Physics) at Lancaster Hotel, Mandaluyong City on August 10-14, 2015

May Flor M. Zaldivar, *English Teacher*

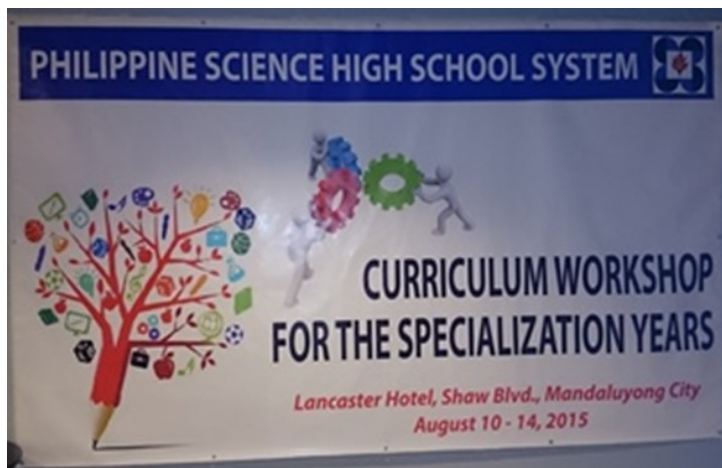
Curriculum Writeshop for Specialization Years of PSHS Curriculum (English) at Lancaster Hotel, Mandaluyong City on August 10-14, 2015



PSHS System Conducts Initial Curriculum Writeshop for Specialization Years

Anwar Zeus S. Pattuinan

PSHS System is now gearing up for the Specialization Years (Grades 11 and 12) through the Curriculum Writeshop held on August 10-14, 2015 at the Lancaster Hotel, Shaw Boulevard, Mandaluyong City, Metro Manila.



Dr. Yazon and Dr. de Lara explaining the expectations and outcomes of the curriculum writeshop.

The writeshop consisted of talks from RPAD and OED personnel, together with speakers from different schools such as Xavier School in Greenhills, San Juan and UP NISMED. It also tackled on writing the content standards and outcomes, and the major topics or contents for the course offerings of Grades 11 and 12.

The participants were mainly from the main campus, RPAD-OED, and regional campuses except for CALABARZON and CARAGA regions. From CMC, the participants were Mr. Arvel L. Huilar (Computer Science), Ms. Jenefer A. Godinez (STEM Research), Ms. Perlita M. Requino (Filipino), Ms. May Flor M. Zaldivar (English) and Mr. Anwar Zeus S. Pattuinan (Physics).

The writeshop is still on-going. The next step will be to write the curriculum of the course offerings and to finalize the curriculum of the Specialization Years program of the PSHS System. These will be held possibly in September 2015 and the finalization will be in October 2015.



The Physics Group: (L-R) Edman H. Gallamaso (SRC), Mary Grace R. Navarro (IRC), Benito A. Baje (CVIS), Edward C. Albaracin (WVC), Anwar Zeus S. Pattuinan (CMC), Maria Veronica S. Torralba (MC), Maria Aileen R. Pesino (BRC), Michelle C. Dalay-on (CARC), Anariza M. Gozon (EVC), and Cromwell M. Castillo (SMC)

MTG National Qualifier

Young Mathematicians' In-House
Intensive Training Program (YMIITP)

Alena W. Taladua
National Qualifier



Alena W. Taladua
Silver Medallist



2015 International Mathematics for Wizard Challenge (IMWiC)

August 9-12, 2015 at Hongkong, China

Coach: Ma'am Ronna Y. Magto

PSHS Scholars Join Sakura Science Exchange Program

By: Pierre Angeli P. Barbaso



Twenty scholars from different Philippine Science High School (PSHS) campuses together with two campus directors joined the Sakura Science Exchange Program of Japan on May 9-16, 2015. Aside from Filipino students, Thai and Indian students also joined the program which consisted visits to Japan's universities and historical landmarks and cultural center.

On the first day, students first visited the Kinkaku Temple or commonly known as the Golden Temple in Kyoto City, where they roamed around seeing the temple's ground, love shrine, wooden veranda and waterfall. The next stop was at the Ritsumeikan University. Students toured around the university and had a chance to see its library, gymnasium, classrooms, halls and other facilities.

On the second day, students went to Osaka University where they saw dozens of equipment necessary for research works and a compartment where sensitive elements are kept. Students were given demonstrations



and taught how to use the equipment. Then the students, along with a Filipino Biology major, went to see the laboratory of Molecular Microbiology to see most of the equipment. After the lab visit, the closing ceremony took place.



On the third day, the group headed to Tsukuba Campus' KEK or High-Energy Accelerator Research Organization. Students checked the Photon Factory where synchrotron light is emitted by the electron accelerator. They saw what seemed to be thousands of wires all connected to a long train of machines. Across

the Photon factory was another building filled with prototypes of the different parts of KEK. It was where the students had a short film-viewing on how the accelerator works and how Belle, the detector, gets data from the collision.



The next destination was to JAXA or Japan Aerospace Exploration Agency where the students had a perfect view of a rocket and a real astronaut suit. Students then viewed the equipment used to

train people who want to be

astronauts, the isolation chambers, the space fish, and the different space foods. The last

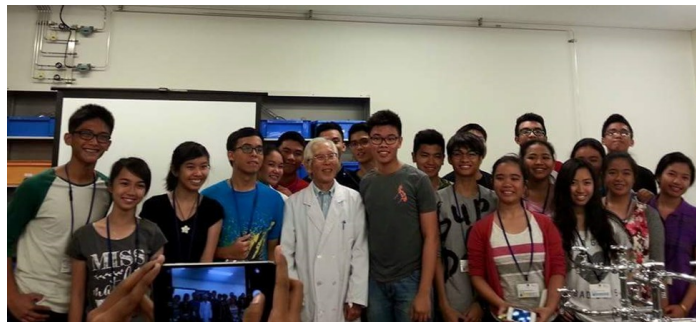
stop of the day was at the embassy of the Republic of the Philippines. There students sat

around the table with the Director of Japan-Asia Youth

Exchange Program in Science, Mr. Kazuki Okimura, and the Ambassador, Mr. Lopez. After students delivered their short speeches, Mr. Okimura gave his speech, with the help of an interpreter, in which he acknowledged Japan's initiative to give students, especially from the Philippines, a chance to see the culture and various facilities that have led Japan to its peak.



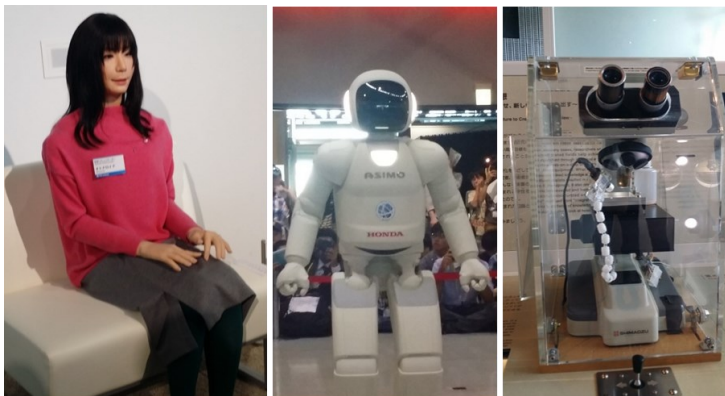
On the fourth day, students went to Miraikan, the National Museum of Emerging Science and Innovation where they met the first Japanese astronaut and Miraikan's Executive Director, Dr. Mamoru Mohri. Dr. Mohri shared his experience of being a scientist and of his



fate of getting to space in 1992. It was also where the students saw an android which looked absolutely real, a gigantic globe flashing images and short videos on its surface, and a humanoid robot named "Asimo" created to operate in the same environment as humans do.

After visiting Miraikan, the group went and stopped at Shibaura Institute of Technology where they did experiments in Chemistry

Laboratory led by the 2000 Nobel Prize in Chemistry winner Dr. Hideki Shirakawa. Dr. Shirakawa delivered a short lecture before starting an



experiment in which students learned about polymers and few basic concepts. After the experiments, the group headed to Diver City, Tokyo, where they saw the world's only full-sized Gundam statue.

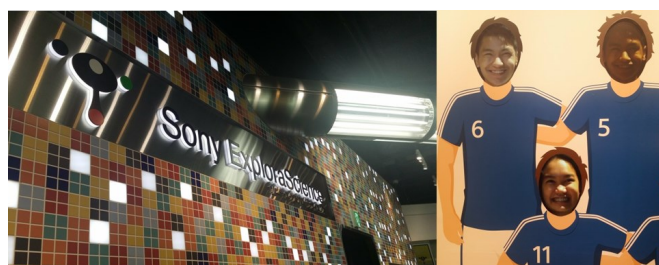
On the fifth day, students had a good time at the Sony Explora-Science, a science museum that explores light, sound and entertainment. This museum features a sound zone, a light zone and a 3D theater. Other interactive programs include delayed speech, emotional speech, marble market, and data tiles. After the visit, the group headed to the Imperial Palace where students beheld and revered the stunning beauty of the palace. Then students strolled and shopped at the center of electronic shops, the country's Otaku culture, and the establishments filled with countless kinds of anime and manga.



On the sixth day, the place of the University of Tokyo fascinated the eyes of the group of students as they entered the campus. Then a short overview of the university's School of Engineering was given to students, promoting the Graduate School of Information Science and Technology (IST). Students strolled around the place and visited two labs in the university – one was the Wind Engineering Department where students experienced a simulated wind in a closed chamber and the other one was the lab where a three-floor-big microscope stands.

The formal closing ceremony began after the tour was done and when everyone arrived and settled. Director Okimura delivered a speech, after the speeches of select students and supervisors, expressing his gratitude to the participating countries. Representatives of each country gave an intermission number. The Philippine team sang and danced the two popular Filipino songs - "Kaleidoscope" and "Pinoy Ako."

On the last day, the students visited the Meji Shrine at Harajuku and Tokyo Metropolitan. They went to a restaurant and souvenir shops before going to Narita airport. Before they knew it, they were home.



STUDENTS' RESEARCHES FOR SY 2014 – 2015

PROJECT TITLE	PROPONENTS
APPLIED SCIENCES AND MATHEMATICS	
<i>Eichhornia crassipes</i> (Water Hyacinth) as Source of Textile	Hannah Lee S. Aldave, Phia Lynn M. Tacastacas and Geraldine Faith D. Yanez
Trends in Rainfall and Temperature Data from PAG-ASA-El Salvador in Relation to Climate Change for Years 1077-2013	Mareal Jan M. Donasco, Faye A. Escobido, and Shaina Chelsey T. Mainit
Briquettes made from Bunker Sludge Fuel from an Industrial Plant in Iligan City	Noelle Grace U. Baroman and Edd-Rustom R. Lumayaga
Combustion Properties of Biomass Briquettes made from <i>Mangifera indica</i> (Mango) Leaves and <i>Eichhornia crassipes</i> (Water Hyacinth) Shoots	Vince Robert P. Arboleda and Orly John P. Lanquino
U-Series Term Ratios as Convergents of Non-degenerate Lucas Constants	John Francis G. Rizada
<i>Eichhornia crassipes</i> (Water Hyacinth) Fiber Mat as Ceiling Material for Thermal Insulation	Christian Vic M. Datan, Erika grace C. Roxas, and Adriana Marie T. Salvador
Survey on the Management of Rice Insect Pests by Maranao Farmers in Bubong, Lanao del Sur	Nurulizzah G. Abdulghaffar, Ayeena Aleah M. Dicali, and Cassandra Isabel A. Soriano
Center of the Graphs of Polynomials	Coreleonne S. Mangindo and Ervin M. Vasaylaje
Class Attendance System for Philippine Science High School-Central Mindanao Campus	Dionela Mae C. Ellos, Maikkee Tamara L. Lagasca and Farrah Angelica M. Suson
Integrated Science Game for Philippine Science High School-Central Mindanao Campus Seventh Graders	Angel Kate S. Compañero, Elyzza Jane L. Descallar and Ariana Vellotchka A. Gallardo
BIOLOGICAL SCIENCES	
Testing for <i>Escherichia coli</i> and Fecal Coliform in “Buko” Juices Sold by Street Vendors near Selected Schools in Iligan City	Maria Conchita Kyla D. Abellanosa, Aynanie S. Kiram and Paul Christian T. Kuinisala
<i>Crescentia cujete</i> (Calabash) Fruit: a Potential Source of Bioethanol	John Elmar R. Bebelone, Royce Val C. Malalis and Carl Edward F. Pahuyo
Phytochemical Screening of the Crude Ethanolic Leaves Extracts of <i>Hydrocotyle vulgaris</i> (Penntwort), <i>Pogonatherum paniceum</i> (Bonsai Bamboo), <i>Blumea balsameifera</i> (“Sambong”), and Root Extract of <i>Ficus skeptica</i> (“Lagnub”) and <i>Bidens pilosa</i> (“Tuway-tuway”)	John Wilber L. Almeria, Val Agustus Bonite, and Carlos Miguel Soriano
Fecal Coliform Content in the Water Sampled from Different High School Institutions in Iligan City, Lanao del Norte	Adia Arianne A. Bangcola
Identification of Phytochemical Components of <i>Zingiberaceae</i> sp. (Wild Ginger), <i>Curcuma longa</i> (Turmeric) and <i>Zingiber officinale</i> (Common Ginger)	Putri Alyanah Haya M. Alonto, Gay Myr Ben C. Roa and Cleo Clarice A. Vibas
Bioethanol Content from the Seeds of <i>Unipe Mangifera indica</i> (Apple Mango) and <i>Mangifera altissima</i> (Pajo Mango) through Anaerobic Fermentation using <i>Saccharomyces cerevisiae</i> (Baker's Yeast)	Andrei C. Baterna
Population Genetic Structure and Anthropogenetics of Makabangkit-Lanto Clan	Sayyed Khatami S. Abdulraouf, Hisham Mohammad M. Amerol and Sean Kenneth T. Sala
Community Structure of Zooplanktons in the Neritic Water of Kiwalan, Iligan City	Raya Faye M. Bahian, Conni Rubein N. Baliog and Franchette Pearl M. Requino
Determination of Physico-Chemical Qualities of Water and Its Fecal Coliform Content in Lake Seluton, Lake Sebu, South Cotabato	Hannan S. Magad
Potential Nematicidal Property of <i>Vitex parviflora</i> (Molave) Extract	Monique Abigail M. Nubio, Kryss Lorenz B. Paluca and Gabriel B. Valenzuela
Protein Content of Selected Sea Cucumbers and Seashells from Baliangao, Misamis Oriental	Lessie Shane O. Alla, Jann-Marie Mizpa G. Cocamas and Donah Clytel G. Yap

ENGINEERING AND TECHNOLOGY PROJECTS	
Automatic Fish Feeder	Christine Jane P. Beleta, Cheska Marie P. Rosales and Rosal May G. Ruda
Microcontroller-based Liquified Petroleum Gas Leak Detector and Alarm System	Abbierose P. Abanes, Ara Joy A. Abatayo and Mel Angel R. Ducao
Automatic Plant Watering System	Armarie M. Gasalatan, Hanipha S. Hairulla and Lady Hero Dale J. Zalsos
Micro-controller-based Improved Soil Moisture Sensor (SMS) System	May Rose A. Dayham, Mikha C. Hamoy and Kathleen Mae M. Juadiong
Outlet with Microcontroller -Based Timer for Automatic Switching of Electronic Devices	Lawrence Jay G. Magsayo, Rio Micah C. Migalbin and Yustin P. Torreno
PC-Based Automated Sales Registry and Inventory Software for Cafeteria	Kent Justine E. Cabanog, Kenneth Roy M. Rojo and Felix Adrian R. Zamoranos
Microcontroller -Based Burglar Alarm System	Christian Maude C. Barcos, Allerah Mejlan C. Quinto and Jezza M. Viñalon
Arduino-based Solar-Powered Traffic Light for Road Construction (A Prototype)	Joshua Irving B. Fabricante, Earl Ernest C. Gonzales and Jomer A. Zerna
Alarm System for PSHS-CMC Class Schedules	Mohammad Salic R. Arumpac, Czarlon Jade C. Lactuan and Joemar L. Pacarat
Microcontroller-Based Heat Monitoring and Alarm System Device for Copra Dryer	Twina Jame C. Campos, Jessel Babe G. Capin and Kathleen Mae V. Edquila
Portable Pedal-Cranked Multi-Purpose Roaster	Mohammad Fadel Batara Barambangan
Inter-convertible Earphone-Speaker Device	Mikho Angelo A. Cabasag and Hezekiah Cresja M. Docdoc

For a total of 33 research projects for SY 2014-2015, 14 were under the advisory of Engr. Redempto C. Madrazo and 19 were under the advisory of Miss Jenefer A. Godinez.

CISD Gazette Editorial Board

**CISD Personnel
CMC Scholars**

(News Article Writers/ News Contributors)

**Radel D. Rayon/ Franklin L. Salisid
(Graphics and Lay-out Design & Printing)**

**Franklin L. Salisid
(Administrative Staff)**

**Rodel R. Marayan
(Editor-in-Chief)**

**Richard B. Jumawan
(Consultant/ Adviser)**