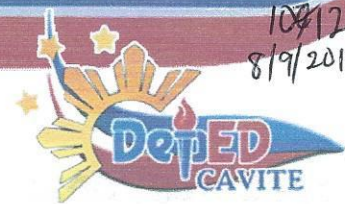




Republic of the Philippines
Department of Education
Region IV-A (CALABARZON)
Division of Cavite
Trece Martires City, Cavite



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August 8, 2017

DIVISION MEMORANDUM
NO. 233 S. 2017

DIVISION WORKSHOP ON DIY (DO IT YOURSELF) IN SCIENCE

To: OIC, Assistant Schools Division Superintendent
Chiefs, CID & SGOD
Education Program Supervisors
Public Schools District Supervisors
Public Secondary School Heads
All Concerned

1. In line with the Regional Science and Technology Fair and Congress and The Regional Festival of Talents in Science, where DIY is the latest additional contest, and in the implementation of the Division cluster/school based "Hands On- Minds On" Science Adventure, this division will **conduct One Day Workshop on DIY (Do It Yourself) in Science** in coordination with Science Star Corporation, on August 14, 2017 at Trece Martires City Elementary School, Trece Martires City.
2. The objectives of the Workshop is as follows:
 - a. Equip Science teachers and learners with manipulative and simple research skills in using DIY instructional Materials,
 - b. Strengthen teaching competencies in developing critical and analytical thinking skills of learners on the use of manipulative materials,
 - c. Develop /Come up with a prototype simple tools, machineries and new simple inventions along science and technology.
3. The participants in the morning are the 19 Science Key Admin and 21 Key Teacher Handling Special Science Elementary Schools (SSES), and in the afternoon are the 60 Head Teachers/Key Teachers in Science of the Junior High schools 24 Science Key Teachers of Senior High Schools. They are requested to bring the NSTIC equipment delivered to their school by DepEd Central Office.
4. The lecturers are the Personnel from Science STAR Corporation with Selected Science teachers as facilitators. The working team with the function based team as the task force is hereby attached as Enclosure No. 1.
5. Travel and food expenses of the participants are chargeable against school/local fund subject to accounting and auditing procedures.
6. Immediate dissemination of this Memorandum is earnestly desired.


CHERRYLOU D. DE MESA
OIC, Schools Division Superintendent



Republic of the Philippines
Department of Education
Region IV-A (CALABARZON)
Division of Cavite
Trece Martires City, Cavite



Enclosure No. 1 to the Division Memorandum No. _____, s. 2017

Executive Committee

CHERRYLOU D. DE MESA
Schools Division Superintendent

Dr. Elias A. Alicaya
Assistant Schools Division Superintendent

Dr. Elpidia B. Bergado
Chief, Curriculum Implementation Division

Estrellita M. De Vera
Education Program Supervisor – Science

| Activities | In Charge/ Task Force /Facilitators |
|--|--|
| 7:30-8:00- Opening Program | Host School -Science Department |
| 8:00 -12:00 Lecture Demo Station 1- Physics Station 2 - Chemistry Station 3 - Biology Station 4 - Earth Science Station 5 - Robotics Programming Station 6 - Invention Machines | Amelita Buenavente, Ma Victoria Maligayo Science STAR personnel Team 1- Arjay Diokno – Buho ES, Silang - Ace Abestado – Bulihan Sites ES, Silang Team 2 - Angelo Amurao – Belvedere ES, GenTrias -Erick Baingan – Pasong Kawayan, GenTrias Team 3 -Frederick Romana - Milagrosa West ES, Carmona - Raquel Palle –San Jose Elem., Tagaytay Team 4 - Ferdinand Vidallo – Litlit ES, Silang Team 5 - Allan Nava – Amadeo Central Sch Team 6 - Mary Harley Joy David-Mendez Crossing ES, Tagaytay |
| 1:00 – 5:00 pm | Irma Ejanda, Edelisa Catacutan |
| Lecture Demo Station 1- Physics Station 2 - Chemistry Station 3 - Biology Station 4 - Earth Science Station 5 - Robotics Programming Lecture Demo Station 6 - Invention Machines | Science STAR personnel Team 1 - Loida Arce, Naic SHS -Araceli Mendoza – Bucal NHS Team 2 - Eliaquim O. Bisa, Cavite Science HS -Michael Yee, Bulihan NHS Team 3 - Ferdinand de Castro- Bagbag NHS -Salome de la Cruz- Tanza NCHS Team 4 - Aries Manalo, Rosario NHS -Marissa Rodil – Trece Martires City NHS Team 5 - Jacquelyn Ureta, Cavite Science HS - Norman Duarte, Bucal Senior HS Team 6 - Arvin Marinduque, Tagaytay Sci HS - Lilia Tayco, Binakayan NHS |



DepEd Schools of Cavite
High School/Senior High School Department

PROGRAMME

August 14, 2017

**9:00 AM -4:00 PM Demonstration, PASCO Scientific Equipment
(21st Technology for Science Lab)**

- Introduction of Wireless Sensors
- Digital Microscopy
- sensors/lab equipment for Physics, Biology and Chemistry, Environmental Science
- A wide array of rugged, accurate, high quality sensors for measuring practically anything - in or out of the lab
- Wireless spectrometer
- Horizon Renewable Energy

Note: A free presentation for all Science teachers.
PASCO has been designing, developing, and supporting innovative teaching and learning solutions for K-12 and higher education.

"Because sensor-based investigations develop Science Literacy and give students the hands-on tools that allow them to think like scientists."

"Children cannot be effective in tomorrow's world if they are trained in yesterday's skills ."

SCIENCE HANDS-ON DEMONSTRATION

LABORATORY ROOM

DEMONSTRATION: SCIENCE LABORATORY EQUIPMENT

- Sensor based technology for Physics, Biology and Chemistry, Environmental Science
- Mechanical equipment for Physics (Mechanics, Optics, Thermodynamics, Magnetism, Waves)
- Wireless Sensors for Ipad/tablet/smart phones

HANDS-ON

ACTIVITIES:

6 SET UP

SCIENCE EXPERIMENT

- pH measurement of common chemicals
- micro climate
- fruits batteries
- Match graph (motion sensor)
- Germinating of mongo seeds
- Digital Microscopy

NOTE FOR THE WORKSHOP:

PARTICIPANTS: Senior HS and Secondary Schools' Teachers in Cavite (provided with snack)

DURATION OF

ACTIVITY: 3 HRS per session. Senior HS in the morning then Secondary Schools in afternoon.

MECHANICS:

Teachers will be divided into 6 groups per session and will do the experiments simultaneously. Once the group completed each set up they have to move to another station until they finish all set up. ScienceStar staffs will facilitate and explain each set up per subject in the workshop area. Teachers can play the equipment with proper guidelines.

DATE: AUGUST 14, 2017

VENUE: Trece Martires Elementary School

MATERIALS

NEEDED:

- (2) Iron stand
- (7) 250 ml beaker
- (2) 1000ml beaker
- 1 L Absolute Distilled water
- 1 pack of tissue paper
- wash bottle
- 5 different solutions for pH determination preferably base and acid (softdrinks, soap sol'n, juices, milk, vinegar etc)
- (30) pcs of germinating mongo seeds (soaked in water for 24hrs before the experiment)
- (30) pcs dried mongo seeds
- citrus fruits, potato, pineapple
- prepared slides for microscopy
- table tennis ball (if available)
- projector
- 6 tables
- extension cable

SCIENCESTAR

STAFF:

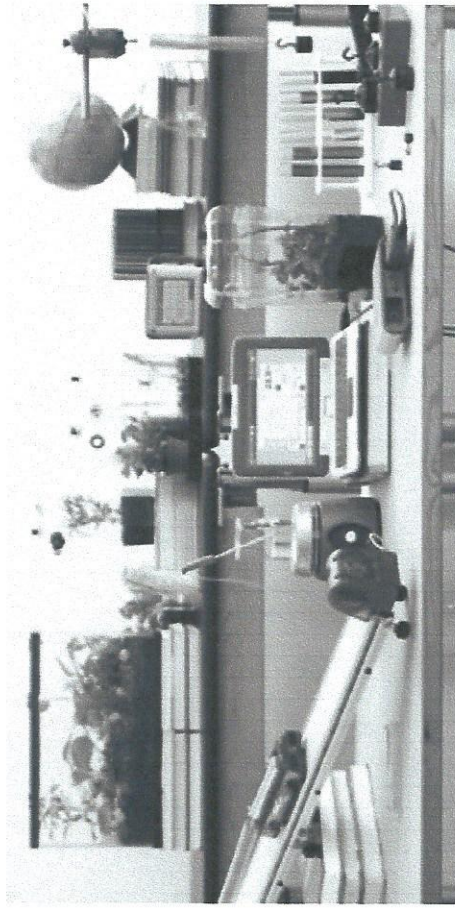
Ms. Nanette R. Lim (Gen. Manager)
Mr. John S. Mallari (Technical Support Team Leader)
Ms. Lia R. Samaniego (Technical Support)
Mr. Yllor Sedol (Technical Support)
Ms. Katrina O. Hular (Technical Sales Representative)
Mr. Emmanuel Abangan (Technical Sales Representative)

Why Use Probeware?

Because sensor-based investigations develop science literacy and give students the hands-on tools that allow them to think like scientists.

Research evidence demonstrates that sustained, guided student use of technology tools for data collection, analysis, and visualization helps deepen students' understanding of science concepts. This increases their scientific literacy while giving them experiential knowledge of science practices. Research also suggests that such learning experiences help increase students' interest, motivation, and engagement in science.

PASCO's sensor-based lab investigations provide extensive opportunities for students to develop scientific literacy and familiarity with the practices of science through hands-on experiences using tools similar to those used by scientists and engineers. And PASCO provides high-quality student equipment at low cost, which helps stretch precious science education resources further.



The increased global need for scientific literacy requires a modern science classroom