

Republic of the Philippines  
**Department of Education**  
Region VII, Central Visayas  
**DIVISION OF CEBU PROVINCE**  
Sudlon, Lahug, Cebu City



May 5, 2015

Division Memorandum  
No. 256, s. 2015

**TEACHER TRAINING: EQUIPPING THE SCIENCE TEACHERS FOR K TO 12**

To: Assistant Superintendent  
Education Supervisors/ Coordinators  
District Supervisors/OICs  
Secondary School Heads

1. Attached is Regional Memorandum No.256, s.2015, dated April 29, 2015, entitled, "Teacher Training: Equipping The Science Teachers For K to 12" .
2. Immediate dissemination of this Memorandum is desired .

  
ARDEN D. MONISIT, Ed.D.  
Schools Division Superintendent

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REPUBLIC OF THE PHILIPPINES  
**DEPARTMENT OF EDUCATION**  
 REGION VII, CENTRAL VISAYAS  
 Sudlon, Lahug, Cebu City



April 29, 2015

REGIONAL MEMORANDUM  
 No. **256**, s. 2015

**TEACHER TRAINING: EQUIPPING THE SCIENCE TEACHERS FOR THE K TO 12**

To: Schools Division Superintendents  
 Officers-in-Charge of Interim and Regular Divisions

1. The Faculty of Education of the University of the Philippines Open University in collaboration with the Pueblo Science, a Charitable organization in Canada dedicated to bringing fun STEM (Science Technology, Engineering and Math) learning to low resource settings, through DOST-Balik Scientist Program, will conduct a science camp entitled "Teacher Training: Equipping the Science Teachers for the K to 12" on May 4-5, 2015 in the covered court of University of the Philippines High School, Lahug, Cebu City.
2. The science camp objectives are: (1) to hold a workshop for grade 7 to 12 school teachers with emphasis on using locally available, low-cost materials to exemplify science principles; (2) to promote self-reliance among teachers; (3) to empower educators and help them achieve their full potential in the teaching profession; (4) to promote student enthusiasm and proficiency in the sciences through hands-on experimentation; and (5) to provide teachers with opportunity to network with international scientists
3. Camp/Teacher training instructors from the University of Toronto and University of California will conduct the following tentative list of experiments on science topics included in the K to 12 curriculum published by the Department of Education:
  - Chemistry of Milk and Ice Cream Making
  - Gel Electrophoresis
  - DNA Extraction and Catalytic Reactions
  - Math Magic: Surfaces, Sequences, Probability, etc.
  - Fluid Power
  - Introduction to Electronics
  - Spread of Germs and Food Nutrition
4. Participants to this science camp are 120 science teachers teaching Grade 7, 8, and 9 in the island of Cebu with specific number of slots per schools division.

Schools Division	No. of Slots
Cebu City	35
Mandaue City	15
Lapu-Lapu City	15
Cebu Province	15
Talisay City	10

Schools Division	No. of Slots
City of Naga	10
City of Carcar	5
Toledo City	5
Danao City	5
City of Bogo	5

5. There is no registration fee so there are no provisions for board and lodging. Expenses incurred by the teacher-participants for the training such as meals, snacks, and transportation may be charged against local school board/ school MOOE / PTA/ personal/ other funds, subject to the usual accounting and auditing rules and regulations.
6. Immediate and wide dissemination of this Memorandum is directed.

*Juliet A. Jeruta*  
**JULIET A. JERUTA, Ph.D.**  
 "Educating for a Strong Republic" Director III  
 Officer-in-Charge



**UNIVERSITY OF THE PHILIPPINES  
OPEN UNIVERSITY**



Department of Education  
Region VII, Central Visayas



RD2015-6655  
28-Apr-15

**FACULTY OF EDUCATION**

27 April 2015


**DR. JULIET A. JERUTA**  
Director III  
Officer-In-Charge  
Office of the Regional Director  
Department of Education Region VII

Dear Dr. Jeruta:

The Faculty of Education is organising "Teacher Training: Equipping the Science Teachers for the K-12". This teacher training is in collaboration with Dr. Mayrose Salvador, the Executive Director of Pueblo Science through the DOST-Balik Scientist Program. It will be conducted in Cebu City on 04-05 May 2015. In this regard, we would like invite 120 science teachers from public high schools in the Cebu. Please find attached to this letter the invitation and activity proposal from Dr. Salvador.

We would appreciate your positive response on this invitation. For more information about this activity, you may contact me through email ([charisse.reyes@upou.edu.ph](mailto:charisse.reyes@upou.edu.ph)) or mobile phone (09485308528).

Truly yours,

  
**CHARISSE T. REYES**  
Assistant Professor  
and Secretary to the Faculty of Education

## **STEM (Science, Technology, Engineering & Math) CAMP PROPOSAL - Cebu**

**Title:** Pueblo RISE 2015: Engaging Students in Science  
**Participants:** Grade 7 – 12 Science (Biology, Chemistry, Physics, Math) Teachers  
**Date:** 04-05 May 2015

### **Background and Training Description**

A concerted effort is needed to improve the Philippine education system in order to cater to the demands of the K to 12 curricula and the 21<sup>st</sup> century. The government recognizes that there is a need to strengthen the teaching competencies, skills and values of science teachers in the Philippines. Providing teachers with ongoing professional development experiences that help build a strong content background, knowledge of effective teaching strategies, and understanding of appropriate uses of resources available around them is a necessity. In particular training the teachers on how to incorporate activities that focus on exploration and hands-on discovery will appeal to the fundamental curiosity of the students and enhance their sense of engagement. Such efforts will effectively provide the students with fundamental skills needed for problem solving, innovation and creation.

*Pueblo Science*, a Charitable organization in Canada dedicated to bringing fun STEM (Science Technology, Engineering and Math) learning to low resource settings, offer its services to deliver a Summer Camp for Science teachers in Laguna on 22-23 April 2015. This opportunity is relevant and timely to help science teachers engage their students in class. Through the camp, the organization intends to provide a seminar-workshop for Grade 7 to 12 Biology, Chemistry and Physics teachers. Volunteers from the organization who have advanced degrees in science and years of teaching experience, will be the trainers and facilitators. This will be the 5<sup>th</sup> year that Pueblo Science holds a science camp for teachers in the Philippines, having visited Masbate, Palawan, Davao, Laguna, Ilocos Norte, Batanes and Rizal in the previous instances of the event.

Since this opportunity to have a relevant seminar-workshop to be facilitated by international experts is rare, the UP Open University strongly supports and proposes the conduct of this project.

### **Science Camp Objectives**

1. To hold a workshop for grade 7 to 12 school teachers with emphasis on using locally available, low-cost materials to exemplify science principles;
2. To promote self-reliance among teachers;
3. To empower educators and help them achieve their full potential in the teaching profession;
4. To promote student enthusiasm and proficiency in the sciences through hands-on experimentation; and

5. To provide teachers with opportunity to network with international scientists and other teachers in Ilocos Norte.

### **Participants**

There must be 120 teachers attending the camp. Each participating teacher must be currently teaching grade 7 to 12 science (chemistry, physics, biology). Preference will be given to science teachers from the barrios. Participants must commit to using the hands-on activities in their classrooms. Pueblo Science will communicate (e-mail, text messages or mail) with the participants after the training to ask for student feedback as well as provide additional materials that they can use in their classrooms.

### **Camp/Teacher Training Instructors**

The following are the Pueblo Science volunteer trainers from the University of Toronto and University of California - Irvine:

1. Mayrose Salvador, PhD
2. Emma Hansen, BSc
3. Calvin Cheng, B.Eng., MSc, PhD Candidate
4. Nari Kim, MSc, PhD Candidate
5. Emina Veletanlic, MSc
6. Erika Daley, PhD student
7. Don Pasiliao, MSc
8. Rommel Santos, BSc
9. Stanley Wong, PhD
10. Ademar de la Santa, MSc

### **Experiments**

The following is a tentative list of experiments. Each experiment will cover topics included in the K-12 curriculum published by the Department of Education.

1. Chemistry of Milk and Ice Cream Making
2. Gel Electrophoresis
3. DNA Extraction and Catalytic Reactions
4. Math Magic : Surfaces, Sequences, Probability, etc.
5. Fluid Power
6. Introduction to Electronics
7. Spread of Germs and Food Nutrition

### **Camp/Teacher Training Format**

The participants will be divided into groups of 20. Each instructor from Pueblo Science will handle 20 participants. Each group of participants will move from one instructor to the other learning different experiments. At the end of the camp, each participant will have learned all 7 experiments as listed above.

**Schedule of Activities**

Registration, table set-up and assigning of group numbers must be done the day before or before 8 am on Day 1.

***Day 1***

8:00 – 8:30 Introduction (Hosting School/Organization, Pueblo Science Volunteers, Participating Teachers)

8:30 – 9:30 Team building Activity: Science Challenge

9:30 – 9:45 Break

9:45 – 11:15 Experiment 1

11:15 – 12:15 Lunch break

12:15 – 13:45 Experiment 2

13:45 – 14:00 Break

14:00 – 15:30 Experiment 3

15:30 – 17:00 Experiment 4

***Day 2***

8:00 – 9:30 Experiment 5

9:30 – 9:45 Break

9:45 – 11:15 Experiment 6

11:15 – 12:15 Lunch break

12:15 – 13:45 Experiment 7

13:45 – 14:00 Break

14:00 – 14:45 Science Magic Show

14:45 – 16:15 Science Chase

16:15 – 16:30 Program Evaluation

16:30 – 17:00 Awarding of Certificates and closing ceremonies

Prepared by:

**MAYROSE SALVADOR**  
**Executive Director, Pueblo Science**