



# Philippine Foundation for Science and Technology

03 November 2017

**DR. FEDERICO P. MARTIN, CESO IV**  
Schools Division Superintendent  
Department of Education- Division of Baguio City  
DepEd- CAR Complex, Wangal  
La Trinidad, Benguet



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Dear Dr. Martin:

Warm greetings from the Philippine Foundation for Science and Technology (PFST)!

Anchored on the DepEd's K to 12 Curriculum, the Philippine Science Centrum (PSC) features interactive exhibits that enhance learning of basic science concepts and processes which are effective tools in rediscovering science in its essence. However, to reach school children who, for reasons of geography, are not able to benefit from an educational visit to our Science Centrum in Marikina, PFST launched seven sets of Traveling Exhibitions, (*Science Adventures, Sci-Fun Caravan, Science on the Move, Science Works!, Science Sparks!, Health Science on the Go! and Mobile Science*), which has visited 219 cities towns and municipalities with an overwhelming participation of over 5 million visitors.

PSC and its traveling exhibits are recognized by DepEd and proven to be an effective tool for K to 12 curriculum.

In a study conducted by the University of the Philippines-National Institute for Science and Mathematics Education Development (UP-NISMED), it was found out that *students who are exposed to interactive exhibits either at PSC or its traveling exhibitions become more interested in science when they go back to classrooms and learning takes place while interacting with the exhibits even for the shortest duration of one minute.*

In this regard, we would like to explore the possibility of bringing our *Science on the Move* to Baguio City as a continuing effort to serve the students, teachers and school administrators of from **January 15 to February 24, 2018** with Baguio City Science Foundation as host/venue partner.

There will be minimal learning investment fee of P60 for 40 exhibits (P1.50 per exhibit), cost of which is just enough to defray the cost of operations like, trucking to/from Manila, cost of utilities repair and maintenance, printing of tickets, etc.

To further discuss the details, we would appreciate if we will be given a chance to present to you our proposal at your most convenient time.

Thank you very much and looking forward to bring *Science on the Move* to Baguio City.

Very truly yours,


**MAY M. PAGSINOHIN**  
Executive Director  
Philippine Foundation for Science and Technology

**DR. OSMUND B. BELMONTE**  
President  
Baguio City Science Foundation


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Republic of the Philippines  
DEPARTMENT OF EDUCATION  
CORDILLERA ADMINISTRATIVE REGION  
**DIVISION OF BAGUIO CITY**  
#82 Military Cut-off Road, Baguio City, 2600



November 9, 2017

**TO: ALL SCHOOLS**

For information.

Please contact Dr. Osmund Belmonte on the above contact details for confirmation.

**FEDERICO P. MARTIN, EdD, CESO VI**  
 Schools Division Superintendent

OSDS/st/efs

NOV 14 2017  
RELEASED

Advisory No. 157, s. 2017

July 11, 2017

In compliance with DepEd Order No. 8, 2013  
this Advisory is issued not for endorsement per DO 28, s. 2001,  
but for the information of DepEd officials,  
personnel/staff, as well as the concerned public.  
(Visit [www.deped.gov.ph](http://www.deped.gov.ph))

PHILIPPINE FOUNDATION FOR SCIENCE AND TECHNOLOGY PROGRAMS  
AND PROJECTS FOR SCHOOL YEAR 2017-2018

The Philippine Foundation for Science and Technology (PFST) has designed the following programs and projects for School Year 2017-2018 to promote Science and Technology consciousness among the youth and various sectors of society:

1. *Philippine Science Centrum (PSC)*. This flagship program of PFST is the first interactive science museum in the country. The exhibits are hands-on and interactive, and science concepts and processes are taught not by looking at exhibits and reading accompanying explanations, but by interactive and performing activities which facilitate learning in an atmosphere of fun;
  - a. *School Visit*. A science mobile exhibit with 10-12 interactive exhibits display inside the school premises to complement during school events like foundation day and science fairs.
  - b. *Science Beyond Classroom Project (SBCP)*. An educational initiative that provides opportunities for low performing schools to send students to experience hands-on interactive exhibits at the PSC, which aims to improve the student's performance in Science.
2. *PSC-Traveling Exhibitions* such as: (a) Science Adventures, (b) Sci-Fun Caravan, (c) Science on the Move, (d) Science Works!, (e) Science Sparks, (f) Health Science on the Go, and (g) Mobile Science. These traveling science exhibitions featuring the replicas of PSC's popular interactive exhibits primarily aim to reach places, which could not benefit from its permanent exhibits at PSC due to distance and other cost constraints;
3. *Training, Seminars and Workshops for Teachers*. These activities are for science teachers, either in the elementary or secondary level, introducing the following interactive and integrative approaches/strategies in teaching science-related subjects:
  - a. Hands on-Minds on Microscale Chemistry Workshop;
  - b. Teachers Science Camp; and
  - c. Start Kits.
4. *Science Centrum Foundation*. This is an exhibit fabrication unit of PFST for interactive exhibits with technical capability of developing, prototyping, fabricating and/or manufacturing interactive exhibits and other educational paraphernalia for the promotion and development of science and technology.

The target participants are learners, teachers and school administrators from both public and private schools.

In line with DepEd Memorandum No. 47, s. 2017 entitled *Moratorium on DepEd Educational Field Trips and Other Similar Activities*, schools may organize extra-curricular activities provided these are done inside the school premises to ensure the security and safety of the learners.

Participation of both public and private schools shall be subject to the *no-disruption-of-classes policy* stipulated in DepEd Order No. 9, s. 2005 entitled *Instituting Measures to Increase Engaged Time-on-Task and Ensuring Compliance Therewith*. This is also subject to the no-collection policy as stated in Section 3 of the Republic Act No. 5546, *An Act Prohibiting the Sale of Tickets and/or the Collection of Contributions for Whatever Project or Purpose from Students and Teachers of Public and Private Schools, Colleges and Universities* (Ganzon Law).

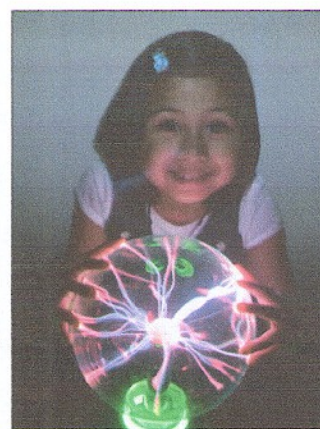
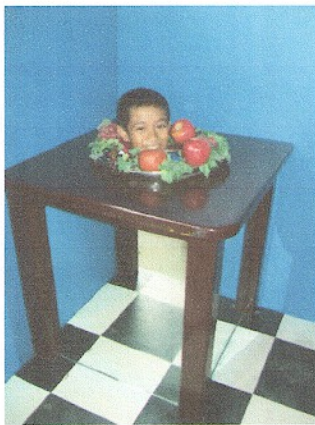
More information may be inquired from:

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### Traveling Science Centrum



#### Implementing Agency:



**Philippine Foundation for Science and Technology**

#### Partner Agency:



**Baguio City Science Foundation**

#### Proposed Period:

**January 10- February 9, 2017**

## RATIONALE:

Filipino culture places a high premium on education. However, government and private efforts are regularly directed towards inputs to education, such as classrooms, textbooks, and teachers. The less traditional inputs such as academic support through museums and educational trips are often neglected.

*"Science Centrum is indeed a great tool in enhancing K-12 education in the country. It is competency-based, learner centered and inquiry-based. Truly, Science is fun at Science Centrum"*

*-Bro. Armin A. Luistro  
Former DepEd Secretary*

The Philippine Science Centrum covers the 3 domains of learning science in K-12. Its unique feature is its interactivity. Science concepts and processes are taught not by looking at exhibits and reading accompanying explanations, but by handling them and performing activities that facilitate and reinforce learning. This, after all, is the best

way to learn many science concepts.

Anchored on the DepEd's K-12 Curriculum, the Philippine Science Centrum and its traveling component, the *Science Adventures (SA-TSC)*, *Sci-Fun Caravan (SFC-TSC)*, *Science On the Move (SOM)*, *Science Works! (SW)*, the *Science Sparks! (SS)*, *Health Science on the Go! (HSOG!)* and *Mobile Science (MS)* feature interactive exhibits that enhance learning of basic science concepts and processes which are effective tools in rediscovering science in its essence. To date, the PSC and its traveling exhibitions have been visited by over six million visitors.

A further service of the Philippine Science Centrum is its traveling exhibits. Through its traveling exhibits, the Science Centrum has reached communities that would not have benefited from its permanent exhibits in its Science Center/Museum in Metro Manila because of distance and cost constraints. To date, the PSC Traveling Science Centrum, has already visited 216 cities and provinces.

When we unload and install **Science on the Move -TSC** in **Cordillera Administrative Region**, the students will come face to face with an educational yet exciting and stimulating learning facility. Such facility allows for S & T discovery, interaction, and manipulation of interactive exhibits in the atmosphere of fun, excitement and entertainment. Our aim is to excite young minds to learn more about science and appreciate how it works in order to improve the quality of life. Exhibits are aligned with the Deped's K-12 learning competencies on Earth Science, General Science Physics and Environment.

## **THE EXHIBIT PACKAGE:**

The Philippine Foundation for Science and Technology (PFST) offers the **Science on the Move** which includes:

### **A. Exhibits and Other Features:**

1. Forty (40) interactive exhibits

The PFST will also take care of gallery lay-out and design for ready-for-printing brochures and other informational materials.

### **B. Manpower:**

1. Two (2) PFST personnel
  - Administrator
  - Technical Supervisor

### **C. Over-all Management of the SOM-Traveling Exhibition includes:**

1. Take charge of ingress/egress of exhibits;
2. Conduct training of local explainers/guides;
3. Maintenance and repair of exhibits;
4. Guest relations and trafficking of visitors;
5. Collection/safekeeping of daily admission fees and accounting;
6. Supervision of all personnel directly involved in operations, including local explainers/guides, security and janitorial personnel.

### **D. Operations Cost of SOM-TSC(from ingress, operation, egress):**

1. Travel allowances and transportation of 2 PFST personnel;
2. Accommodation of two (2) PFST staff;
3. Trucking of exhibits from PSC-Marikina to Baguio and vice versa;
4. Insurance of PFST personnel and exhibits;
5. Exhibits and office supplies and materials;
6. Maintenance and repair cost;
7. Printing of tickets

## RESPONSIBILITIES OF BAGUIO CITY SCIENCE FOUNDATION:

1. Identify, make available and prepare venue with the following requirements:
  - a. Exhibit space of at least **600sq.m.** (secured, well ventilated, accessible to the public, with ample parking space, good water supply and electricity --- area requirements and specifications per exhibit, gallery design and lay-out to be identified upon ocular visit);
2. Assign five (5) explainers/guides (to be trained by PFST) and accounting personnel to counter check the day-to-day operations of the exhibits.
3. Provide manpower support for the ingress and egress of the exhibition
4. Assist PFST in setting up exhibits as well as in other administrative matters that will be needed from time to time.
5. Promotions:
  - a) Inviting/scheduling school groups (public and private ) and other interested parties (150 students/ per hour, 8:00 a.m. to 5:00 p.m., Monday to Friday)

## BENEFITS AND GAINS:

1. Provides a rare opportunity for school children, teachers and school administrators to improve performance in science via **Science on the Move** learning experience.
2. An effective venue for learning K to 12 science beyond the classroom.

## MONETARY TERMS:

### Sharing of Gross Admission Fees between the PFST and BCSF:

1. **Entrance fee – P60.00** (general admission)
2. **PFST – P35.00** share from gross income
3. **BCSF- P25.00** share from gross income
4. For **PFST**, income will be utilized for maintenance, repair and development of new exhibits.
5. For **BCSF** - income will be utilized for the implementation of science related projects.
6. Target number of students is **10,000**.
7. **Teachers – FREE**

# Science ON THE MOVE

## EXHIBITS:



1. 3D Glasses
2. Anti-Gravity Mirror
3. Archimedes Screw
4. Bernoulli Blower
5. Bicycle Gears
6. Bone Stress
7. Colored Shadows
8. Eddy Current Brake
9. Eddy Current Discs
10. Ferro Fluid
11. Finger Tingler
12. Flashing Pendulum
13. Floating In Aluminum
14. Following Faces
15. Frozen Shadows
16. Head On A Platter
17. Gravity Well
18. Gyroscope
19. Hexagonal Kaleidoscope
20. Hot Spot
21. Hydropower
22. Hyperbolic Slot
23. Hyperbolic String
24. Illusions
25. Look Who's Talking
26. Magnetic Field
27. Magnetizer/ De-magnetizer
28. Mirage
29. Money Detector
30. Van de Graaff
31. Photovoltaic Cells
32. Plasma Sphere
33. Pythagorean Theorem
34. Rotating Disc
35. Simple Generator
36. Stereo Viewer
37. Tangrams
38. Uphill Roller
39. Vibrating String
40. Water parabola
41. Wind Power
42. Zoetrope

## Line Item Budget and Projected Income

Projected Income – 10,000pax @ P60.00 = P 600,000.00

PFST (P 35.00)		BCSF ( P 25.00)	
<b>Gross Income</b>	<b>P 350,000.00</b>	<b>Gross Income</b>	<b>P250,000.00</b>
<i>Expenses:</i>		<i>Expenses:</i>	
Trucking of Exhibits (MLA-Bagui and Vice versa)	170,000.00	Incentives/rebates to school/s (optional)	50,000.00
Accommodation of 2 PFST staff	10,000.00	Promotions and Marketing	10,000.00
Salaries & Travel Allow.	42,000.00	Cost of Venue/Utilities	20,000.00
Exhibit Maintenance & Repair	40,000.00	Miscellaneous	<u>10,000.00</u>
Printing of Tickets	15,000.00		P 90,000.00
Others ( Ocular inspection, scientific tokens, etc.)	<u>15,000.00</u>	<b>Net Income</b>	<b>P 160,000.00</b>
	P 292,000.00		
<b>Net Income</b>	<b>P 58,000.00</b>		