



CISTEM

Center for Integrated STEM Education, Inc.

Creating a culture of inquiry and innovation for nation-building



An independent program of



STEM Global Benchmarking Tour and Intensive Training

Massachusetts, USA | April 20-29, 2018

University of the Philippines, Department of Education, Philippine Science High School System



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Ms. Eileen Villaruz, Master Teacher, DepEd

Ms. Aimee Pareno, Master Teacher, DepEd

It aims to establish Integrated STEM Education in the Philippines through its

STRATEGIC PROGRAMS



**Teacher
Upskilling**



**Learner
Empowerment**



**Curricular
Innovation**



**GIE
Partnerships**



Research



Teacher Upskilling: Webinars



Accredited Learning Service Provider of
NEAP (DepEd Training Arm)



3-Part Webinar Series:
Teaching and Learning STEM EDUCATION in the New Normal
via Zoom!

- Reframing STEM Education for the New Normal**
Dr. Jay C. Rosales, Ph.D.
July 24, 2020 | 10am
- Remote STEM Teaching for Diverse Learners**
Trishia C. Ochoa, M.A.Ed.
August 18, 2020 | 10am
- Assessment at a Distance: Ensuring Learning from Afar**
Melvin T. Magasin, M.A.Ed.
August 25, 2020 | 10am

3-part Webinar Series
Total People Reached: 132,505
Total Engagements: 33,202

WEBINAR SERIES #3
August 08, 2020 | 9:00 - 10:30 am
"Context-Based Learning in the Chemistry Classroom"
Edwenna Elinor S. Poslerma, Ph.D.
via ZOOM
CISTEM UNILAB FOUNDATION

REIMAGINING THE ROLE OF TEACHERS FOR INCLUSIVE STEM LEARNING
July 28, 2020 | 10am
MELVIN T. MAGASIN, M.A.Ed.
CISTEM UNILAB

REMOTE AND INTERACTIVE LEARNING CONVERSATIONS
eSTEM in the madness: Preparing to Teach STEM Courses Remotely
with Prof. Sheryl Lee C. Montano, Ph.D., UP Diliman College of Education
12 August 2020 (Thursday) 3:00-3:30 PM

erhan learning
CISTEM UNILAB

Reframing Education for the New Normal
July 6, 2020 | 9:30 AM
CISTEM UNILAB

Staying Agile, Staying Well: WORK-LIFE BALANCE in the time of COVID-19
WEBINAR | 10:00 AM
CISTEM UNILAB

Remote STEM TEACHING for Diverse Learners
May 21, 2020 | 1:00 PM
CISTEM UNILAB

Sustaining a Digital Community of Practice
May 18, 2020 | 10am
CISTEM UNILAB

BEYOND COVID-19: The Evolving Education Research Agenda
June 16, 2020 | 10:30 AM
CISTEM UNILAB

erhan learning
CISTEM UNILAB

MAXIMIZING CONTEXT-BASED LEARNING IN THE TIME OF PANDEMIC
July 28, 2020 | 10am
CISTEM UNILAB

Partnership with C&E Publishing and other organizations



Teacher Upskilling: Innovation Workshop

In partnership with



Online Innovation Workshop for Faculty Members of the University of the Philippines System

July 13, 16, 23, and August 3, 2020

PAIR UP

Platform for Academe-Industry Relations for the University of the Philippines



GEARING UP FOR A POST-PANDEMIC WORLD WORKING WITH OTHERS THROUGH COMMUNITY-BASED REMOTE LEARNING

03 Aug 2020 | 9:00am - 1A | Gear UP for Remote Learning



ViExPro Virtual Immersive Experience For Industrial Processes and Unit Operations

EduTech 4B

PROJECT AMBAG A Collaboration Platform



Mobile Cross-Platform Online Learning Experience Optimization

PROPOSAL



Project #Connection (Connecting Interactively in Offline/Online eNvironments) Phase 1: Leveraging Interconnectivity of Moodle LMS and GSuite - Graphical User Interface (GUI)

Team 4A



UP System Committee on Remote Learning
Gear UP for Remote Learning: Innovation Workshop
Group 2B

Project OBLE Online/Offline Bridging of Learning Experiences

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Teacher Upskilling: Design Thinking Workshop for Educators



Philippine Science High School System



Adopted schools of





Teacher Upskilling: STEM Teaching Factory

Teacher Immersion Program with focus on STEM Careers

In partnership with





Learner Empowerment: Summer Program (2019)



Chemistry: Ice Cream Making



Biology: Learning about Neurons



Physics: Science of
Philippine Games



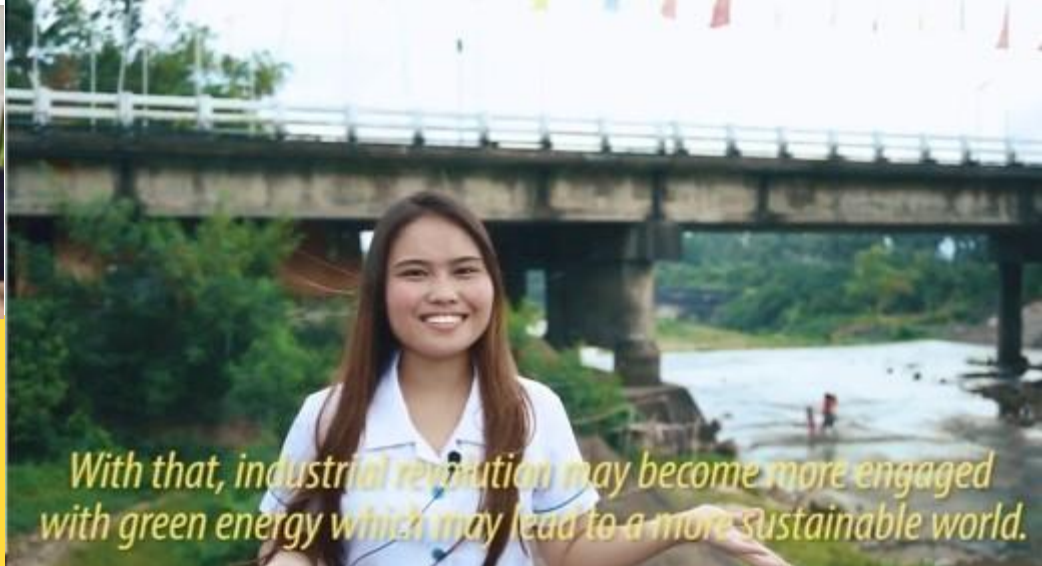
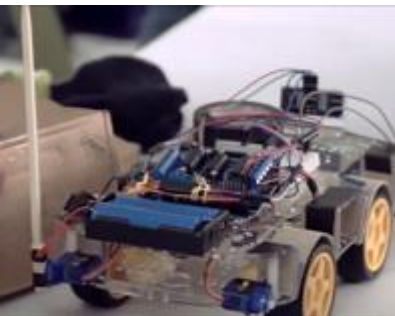
Earth Science: Soil Painting



Mathematics: Origami and Kirigami



Learner Empowerment: Hackathon and STEAM Innovation Competition



**SORSOGON
STEAM
INITIATIVE**





Learner Empowerment



STEAM RESEARCH OUTPUTS

UTILIZING THEOBROMA CACAO AS AN ALTERNATIVE TO COMMERCIAL CHOCOLATE SPREAD
 Authors: Gabrielle Allen Nepomuceno, Jomel Furina, Klana Therese Tan, Arvie Calas
 Adviser: Lawrence Ann L. Meodina
 BALLEWASA NATIONAL HIGH SCHOOL

ABSTRACT
 This study aims to determine the effect of Theobroma cacao on the spreadability of chocolate spread. Theobroma cacao is a tropical tree that produces cacao beans, which are used to make chocolate. Theobroma cacao is a rich source of antioxidants and has been shown to have health benefits. Theobroma cacao is also a good source of fiber and iron. Theobroma cacao is a good source of antioxidants and has been shown to have health benefits. Theobroma cacao is also a good source of fiber and iron.

INTRODUCTION
 Chocolate spread is a popular snack that is enjoyed by many people. However, commercial chocolate spread is often made with refined sugar and hydrogenated oils, which are not healthy. Theobroma cacao is a natural source of antioxidants and has been shown to have health benefits. Theobroma cacao is also a good source of fiber and iron.

MATERIALS & METHODS
 Theobroma cacao was used as the main ingredient in the chocolate spread. Theobroma cacao was ground and mixed with other ingredients to create the chocolate spread. Theobroma cacao was used as the main ingredient in the chocolate spread. Theobroma cacao was ground and mixed with other ingredients to create the chocolate spread.

RESULTS & DISCUSSION
 Theobroma cacao was found to be a good source of antioxidants and has been shown to have health benefits. Theobroma cacao is also a good source of fiber and iron. Theobroma cacao was found to be a good source of antioxidants and has been shown to have health benefits. Theobroma cacao is also a good source of fiber and iron.

CONCLUSION
 Theobroma cacao is a good source of antioxidants and has been shown to have health benefits. Theobroma cacao is also a good source of fiber and iron. Theobroma cacao was found to be a good source of antioxidants and has been shown to have health benefits. Theobroma cacao is also a good source of fiber and iron.

REFERENCES

Mercedes B. Peralta Senior High School
ERCELES B. PERALTA SENIOR HIGH SCHOOL
Effectiveness of Urine and Bleach (Sodium Hypochlorite NaOCl) Solution as a Potential Power Source for Public Urinals
 Authors: April Gray & Rebecca...
 Adviser: ...

MATERIALS AND METHODS

"KARAGUMUJ FIBER: PROMOTING LIVELIHOOD OPPORTUNITIES IN THE TEXTILE INDUSTRY IN GUBAT"
 Authors: ...
 Adviser: ...

ABSTRACT
 Karagumuj fiber is a natural fiber that is used in the textile industry. Karagumuj fiber is a natural fiber that is used in the textile industry. Karagumuj fiber is a natural fiber that is used in the textile industry.

INTRODUCTION
 Karagumuj fiber is a natural fiber that is used in the textile industry. Karagumuj fiber is a natural fiber that is used in the textile industry. Karagumuj fiber is a natural fiber that is used in the textile industry.

MATERIALS & METHODS
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RESULTS & DISCUSSION
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CONCLUSION
 Karagumuj fiber is a good source of ... Karagumuj fiber is a good source of ... Karagumuj fiber is a good source of ...

REFERENCES

Donsol National Comprehensive High School
Hazel Mae M. Dela Rosa
Chelsea S. Clang
John G. Aldes
Rommel E. Acabado
 Adviser: Ronald L. Lomerio

Made with KINE



Learner Empowerment: COVID-19 Comics



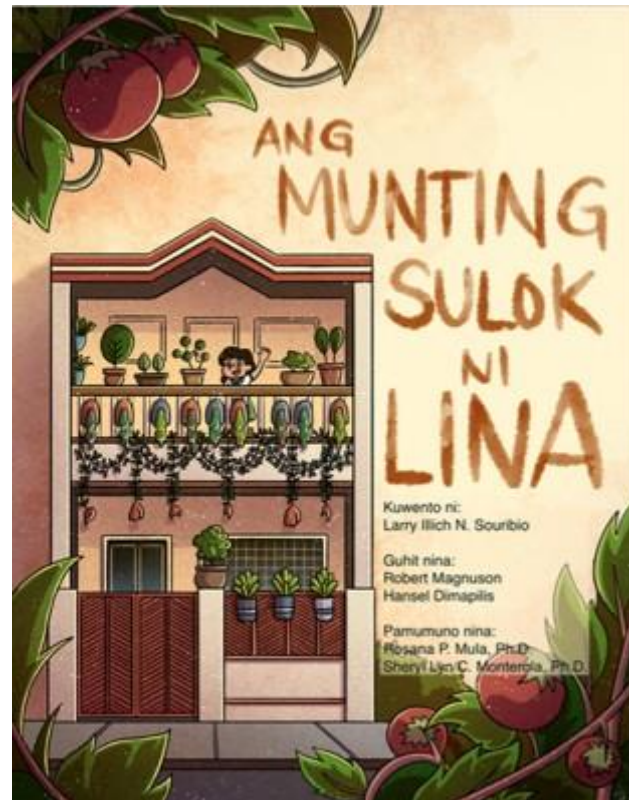
Circulated in all public elementary schools





Learner Empowerment: Urban Agri Activity Booklet and Filipino Storybook

In partnership with





Curricular Innovation: K-2 Science of Us

- 25 Modules for remote learning
- Lab-in-a-box
- Video tutorials for parents/home learning partners
- FB group assistance for parents and home learning partners





Curricular Innovation: Sorsogon STEAM Innovation Program

- Consultation with Stakeholders
- Community Needs Assessment

- Innovation-focused Curriculum
- Teacher Capacity building

- STEM Talk for Parents
- Hackathon; Innovation Competition



Design challenges



Ideation techniques



Prototyping



Innovation Pitch



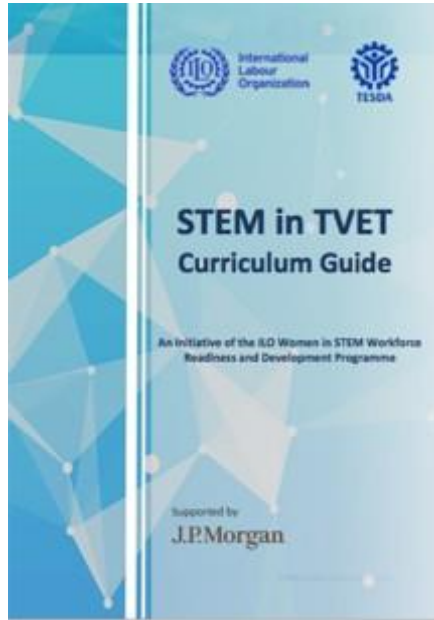
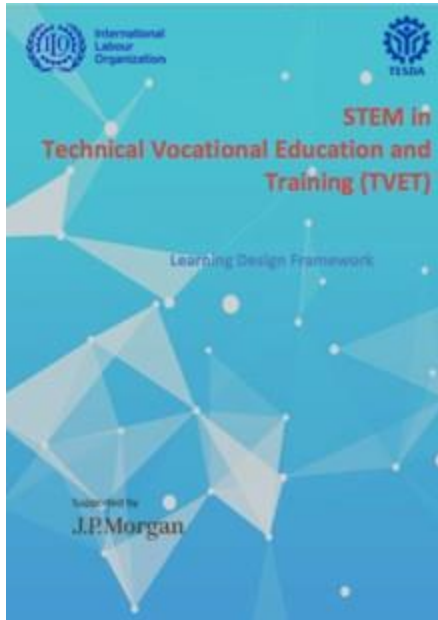
Curricular Innovation: STEM in TVET



International
Labour
Organization



TESDA



Curriculum Guide Writeshop

October 20, 23, 27, 30, November 3, 2020

120 TESDA Curriculum writers

Train the Trainers Workshop

February 2, 4, 9, 11, 16, 2021

112 TESDA Trainers

Upcoming activities

- Meeting with ILO Geneva
- Trainers Guide and Student Workbook



Curricular Innovation: National TV Program

The graphic features a smiling man in a white shirt and tie standing on the left. The background is a teal wall with a large, stylized graphic of a face with a wide smile. The text 'JUANDER SCIENCE' is written in large, bold, orange letters with a white outline. Below it, 'with TEACHER MELVIN' is written in white on a yellow banner. In the top left corner, the DepED logo is visible. In the bottom left corner, there is a logo for 'DepED TV' featuring a television set with a book and stars, and the text 'Junior High Science 10'.

DepED
Department of Education

**JUANDER
SCIENCE**

with **TEACHER MELVIN**

DepED TV Junior High Science 10



Curricular Innovation: Radio Programs



#ABSCBNNews #ABSCBNLiveStream #NewsLive
Juander Titser | Teleradyo (30 January 2021)

Juander Titser DZMM Teleradyo



Juander Teacher On Air Mindanao



Radyo Turo Guro in partnership with Ateneo SALT



GIE Partnerships: 2nd Integrated STEM Leadership Summit in Asia

- Co-organized with MIT J-WEL, SEAMEO, US STEM Leadership Alliance, Unilab Foundation, and SEAMEO STEM-ED Centre
- 3, 770 participants representing 50 countries
- 100 speakers

<https://www.stemsummitasia.org/>

**2ND INTEGRATED
STEM LEADERSHIP
SUMMIT IN ASIA**

REIMAGINING INTEGRATED STEM EDUCATION: *Amplifying Agility
and Transformational Collaboration for a Post Pandemic Asia*

January 21ST - 22ND 2021 (GMT +8:00)
This event is free and fully virtual!
Take part in the evolution of STEM in Asia!
Register now through bit.ly/stemasia2021



GIE Partnerships: Fora and Academic Meetings

CISTEM

UP College of Education
Center for Integrated STEM Education in the Philippines
and
MakerSpace@NYP
Present

**A Forum on
MakerSpace**

A Hub for Bringing Human-centric Solutions to Life

FREE REGISTRATION

April 25, 2019
9:00AM – 12:00NN
UP Integrated School Auditorium UP
Diliman, Quezon City

**Nanyang Polytechnic
A Forum on MakerSpace**

April 25, 2019



**Asia Society Center for Global Education
Global Skills in STEM and Vocational Education
Professional Development Workshop
November 18-19, 2019**

CONVERSATIONS WITH PROFESSIONAL ASSOCIATIONS:
"Nurturing and Advancing the Philippine STEM Pipeline"

8:00 am - 5:00 pm
Friday, November 15, 2019
UP Diliman, Quezon City

UNLAP CISTEM NYP

**GIE Forum: Philippine STEM Pipeline
November 15, 2019**

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GIE Partnerships: 1st Integrated STEM Leadership Summit in Asia

- Co-organized with US STEM Leadership Alliance and Unilab Foundation
- 400 participants
- 70 speakers

FIRST INTEGRATED STEM LEADERSHIP SUMMIT **— A S I A —**

**Strengthening Integrated STEM
through Global Crossvergence**

November 21-24, 2019

Shangri-La's Mactan Resort & Spa, Cebu, Philippines

Summit Highlights: <https://www.youtube.com/watch?v=XR7jgYjZ9PY>



GIE Partnerships



J-WEL

Abdul Latif Jameel World Education Lab



WPI

STEM
Education
Center



Smithsonian
Science Education Center



Asia
Society®

Center for
Global Education



nsta

National Science Teaching Association



NATIONAL COUNCIL OF
TEACHERS OF MATHEMATICS



AMERICAN SOCIETY FOR
ENGINEERING EDUCATION



Challenger
CENTER

NYP Nanyang
Polytechnic



FONDATION
La main à la pâte

POUR L'ÉDUCATION À LA SCIENCE



International
Labour
Organization



GIE Partnerships





CISTEM

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Thank you.