



2023

GLOBE THAILAND REPORT

2024 GLOBE Asia-Pacific Regional Meeting
April 14 – 18, 2024, Malé, Maldives



GLOBE Thailand Team



**DR. THIRADET
JIARASUKSAKUN**
President of IPST/
Country Coordinator of
Thailand



DR. KUSALIN MUSIKUL
Assistant to President of
IPST



SUWINAI MONGKONTHAN
GLOBE Thailand Project Manager /
Specialist



PARICHAT PUANGMANEE
Expert



YUPAPORN LAPLAI
Specialist



SAMORNSRI KANPHAI
Specialist



SIRIPORN LAOWANITCH
senior officer



Thailand

Year Joined: 1999

COUNTRY AT A GLANCE

Participation

Training

44119 Students

3008 Educators

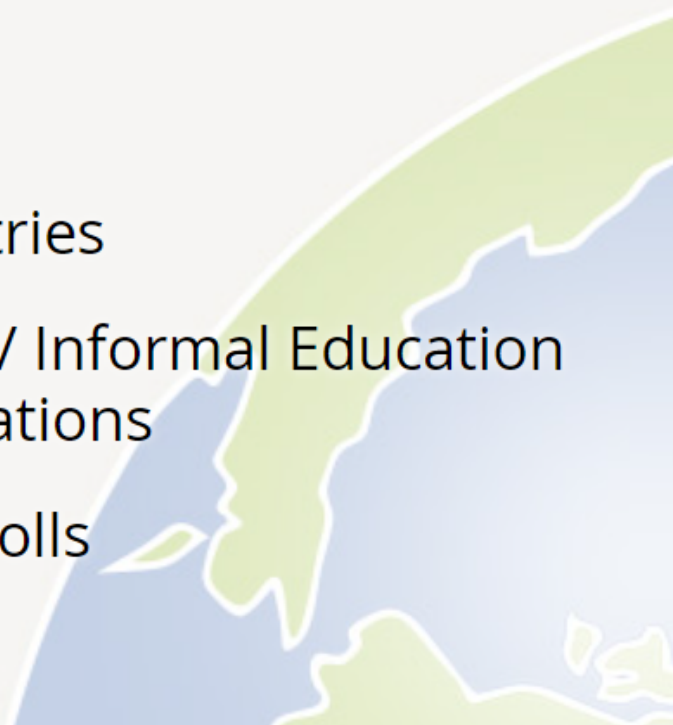
250 Pre-service Teachers

15352 GLOBE Observers

409803 Data Entries

1226 Schools / Informal Education Organizations

124 Honor Rolls



GLOBE Stars



Thailand GLOBE: Quick and Creative Start

14 Sep 2023

[See all GLOBE Stars >](#)

Student Research Reports



Effects of salinity, temperature, acidity, alkalinity and DO in the growth of crabs in Trang.

11 Mar 2024

Vision

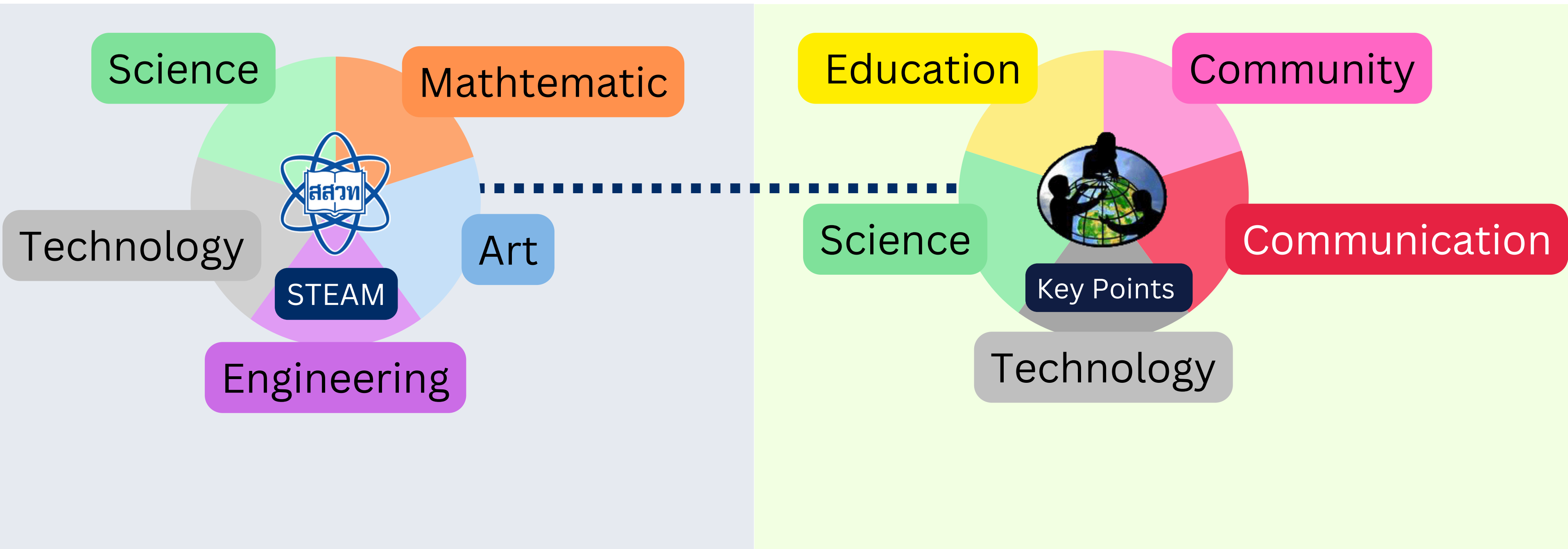
ENVIRONMENTAL SCIENCE AND CLIMATE CHANGE LITERACY

**SCHOOL - UNIVERSITY -
IPST - PRIVATE AGENCY -
THE GLOBE PROGRAM**



Vision

ENVIRONMENTAL SCIENCE AND CLIMATE CHANGE LITERACY



Target

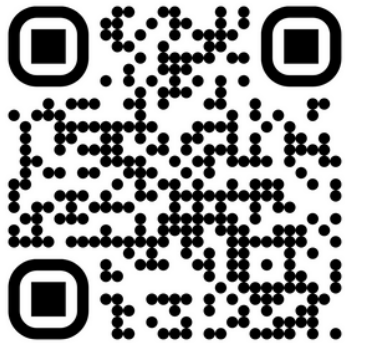
Teacher

Student

Citizen

GRADE 4 - 12

Project



01

Science

Enhancing Student and Teacher Potential on Environmental Science **Research and Innovation** for Environmental Science Education 2023

02

Education

Online Training for Enhancing **Teachers'** Potential in Understanding Climate Change and Earth System Science

03

Community

Promoting **GLOBE Activities** and Raising Awareness of Environmental Science Learning in Thailand

04

Technology

GLOBE Media Development

05

Science

Education

Cooperation with Universities in Promoting Environmental Science Research Based on IPST Concept

06

Science

Community

The Extension of **GLOBE Research** Program and Network to Strengthen Local Wisdoms in Rural Areas of Thailand

07

Communication

GLOBE Thailand **Special Events**

Achievement

22+2

769

2,774

(1,631 / 1,128 / 15)

10

1

5

6

**UNIVERSITY / US EMBASSY / COMMUNITY CHILDREN
FOUNDATION (CCF) UNDER THE ROYAL PATRONAGE OF
HRH PRINCESS MAHA CHAKRI SIRINDHORN.**

SCHOOL

TEACHER / STUDENT / CITIZEN

TEACHER TRAINING (ONLINE)

GLOBE MEDIA (ONLINE)

GLOBE CAMPAIGNS (ONLINE)

ENVIRONMENTAL SEMINAR (ONLINE)

01

Enhancing Student and Teacher Potential on Environmental Science Research and Innovation for Environmental Science Education

1.1 GLOBE Student Research Competition 2023 (GLOBE SRC)

- Primary and secondary education students.
- Online competition for formal, private, and buddhist schools.
- **90 oral presentations** from 76 schools



01

Enhancing Student and Teacher Potential on Environmental Science Research and Innovation for Environmental Science Education

1.2 Thailand Junior Water Prize 2023 (TJWP)

- Upper secondary students (Age 15-19).
- Online competition for inventions and innovations in water resource conservation on May 2, 2023
- **45 research projects** from 45 schools

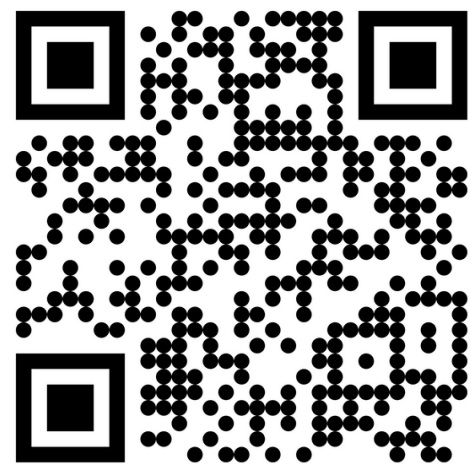


01

Enhancing Student and Teacher Potential on Environmental Science Research and Innovation for Environmental Science Education

1.3 Stockholm Junior Water Prize 2023 (SJWP)

- The winner from TJWP participated in the SJWP 2023 on 19 - 24 August 2023 in Stockholm, Sweden.

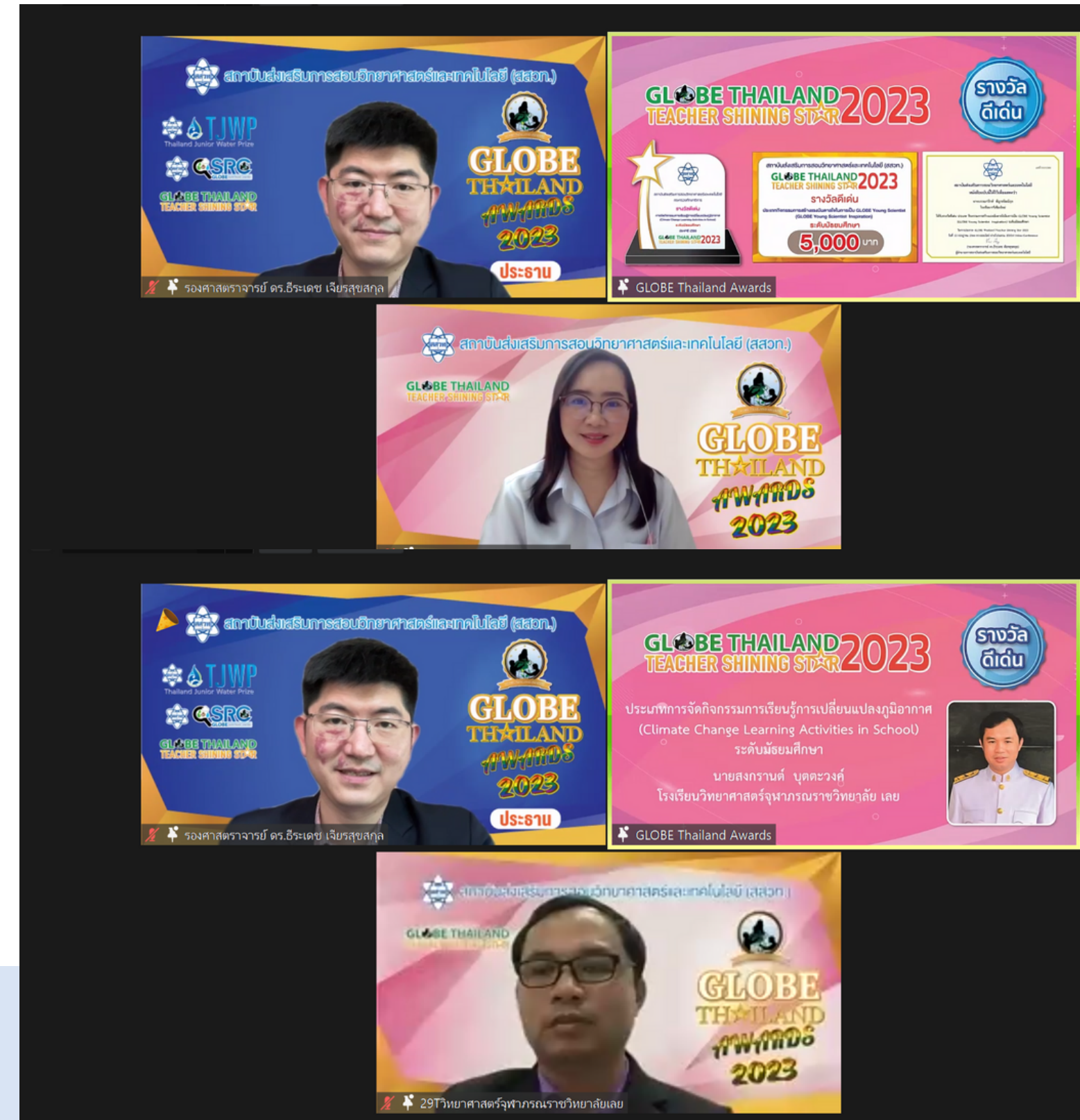


01

Enhancing Student and Teacher Potential on Environmental Science Research and Innovation for Environmental Science Education

1.4 GLOBE Thailand Teacher Shining Star 2023

- admire teachers who implement GLOBE learning resources (Earth System Science Curriculum, Climate Change Learning Activity and GLOBE Protocols) in school.



02 Online Training for Enhancing Teachers' Potential in Understanding Climate Change and Earth System Science

2.1 Training on Climate Change Learning Activities

- **291 teachers** from 194 schools (Primary and Lower Secondary Level)

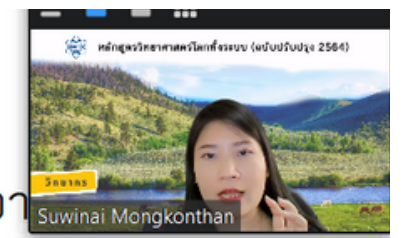
2.2 Earth System Science Curriculum

- **299 teachers** from 159 schools (Primary and Lower Secondary Level)

The image shows a screenshot of a training presentation slide on the left and a video call window on the right. The slide is titled 'ตอนที่ 2 อ่านแผนที่เขตภูมิอากาศโลกแล้วตอบคำถาม' and contains five questions (Q1-Q5) about climate zones. The video call window shows a woman with glasses speaking, with a background graphic that says 'การอบรมกิจกรรมการเรียนรู้การเปลี่ยนแปลงภูมิอากาศ' and 'วิทยากร Samornsri Kanphai'.



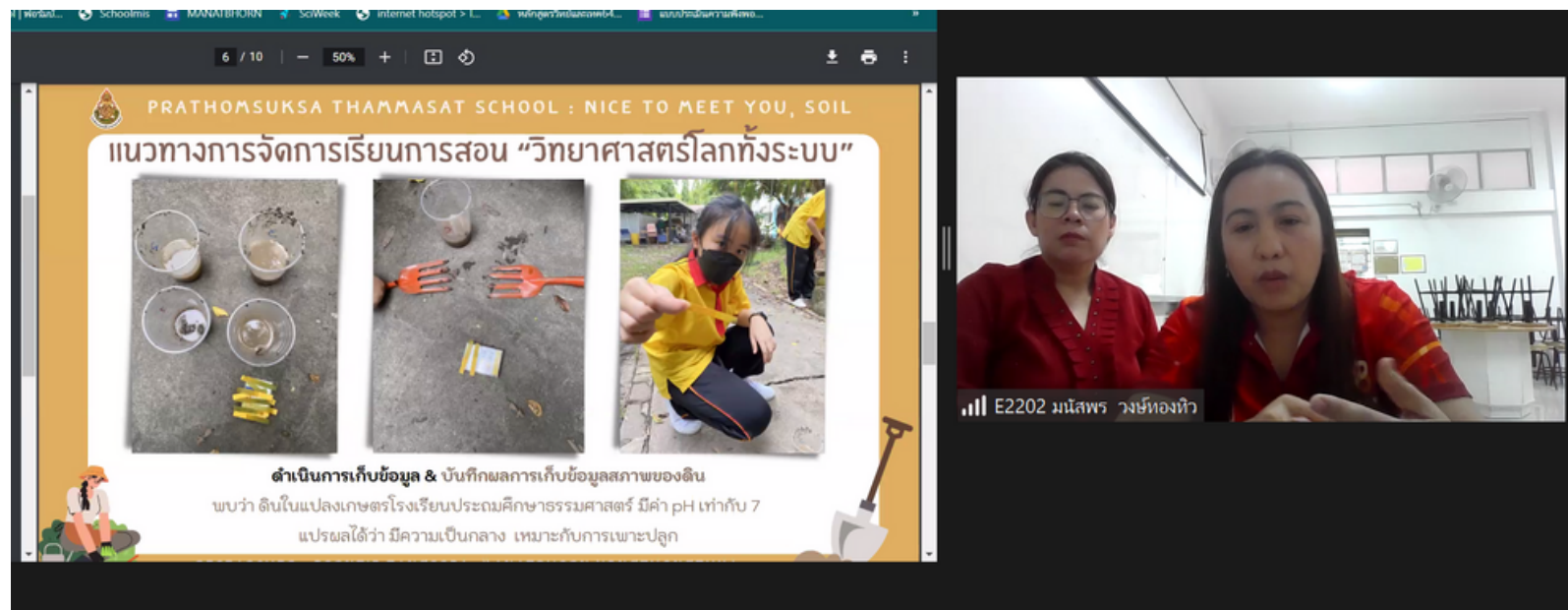
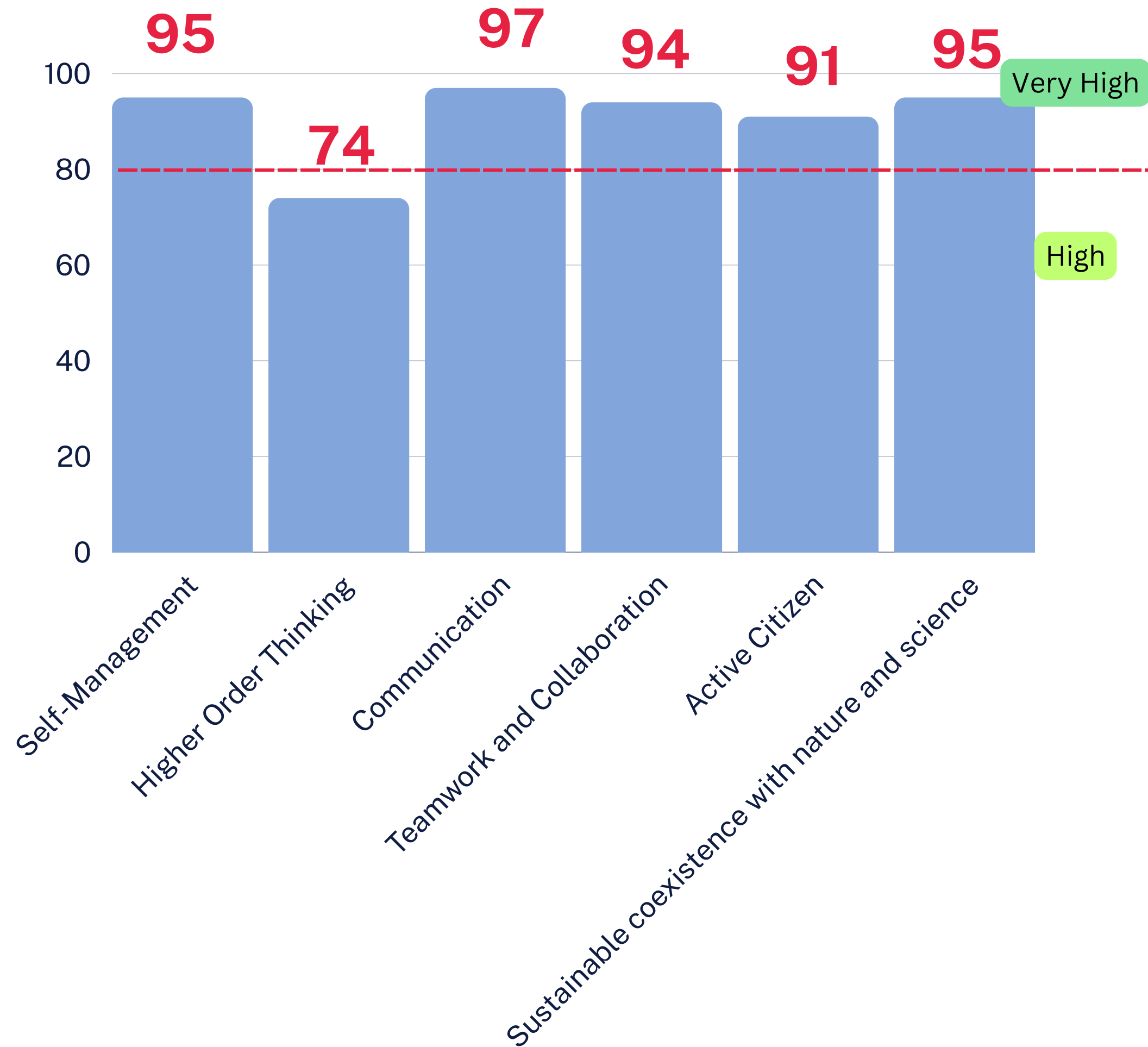
ก่อนตรวจวัดสภาพอากาศ
ติดตั้งตู้กำบังเครื่องมือ (Shelter)
เพื่อปกป้องเครื่องมือ **มิให้** สัมผัส
กับแสงอาทิตย์โดยตรง ซึ่งจะทำให้
อ่านค่าได้สูงกว่าความจริง และทำให้
เครื่องมือชำรุดเร็วขึ้น



Development of Core Learner Competencies

for students who have completed the Earth system science curriculum

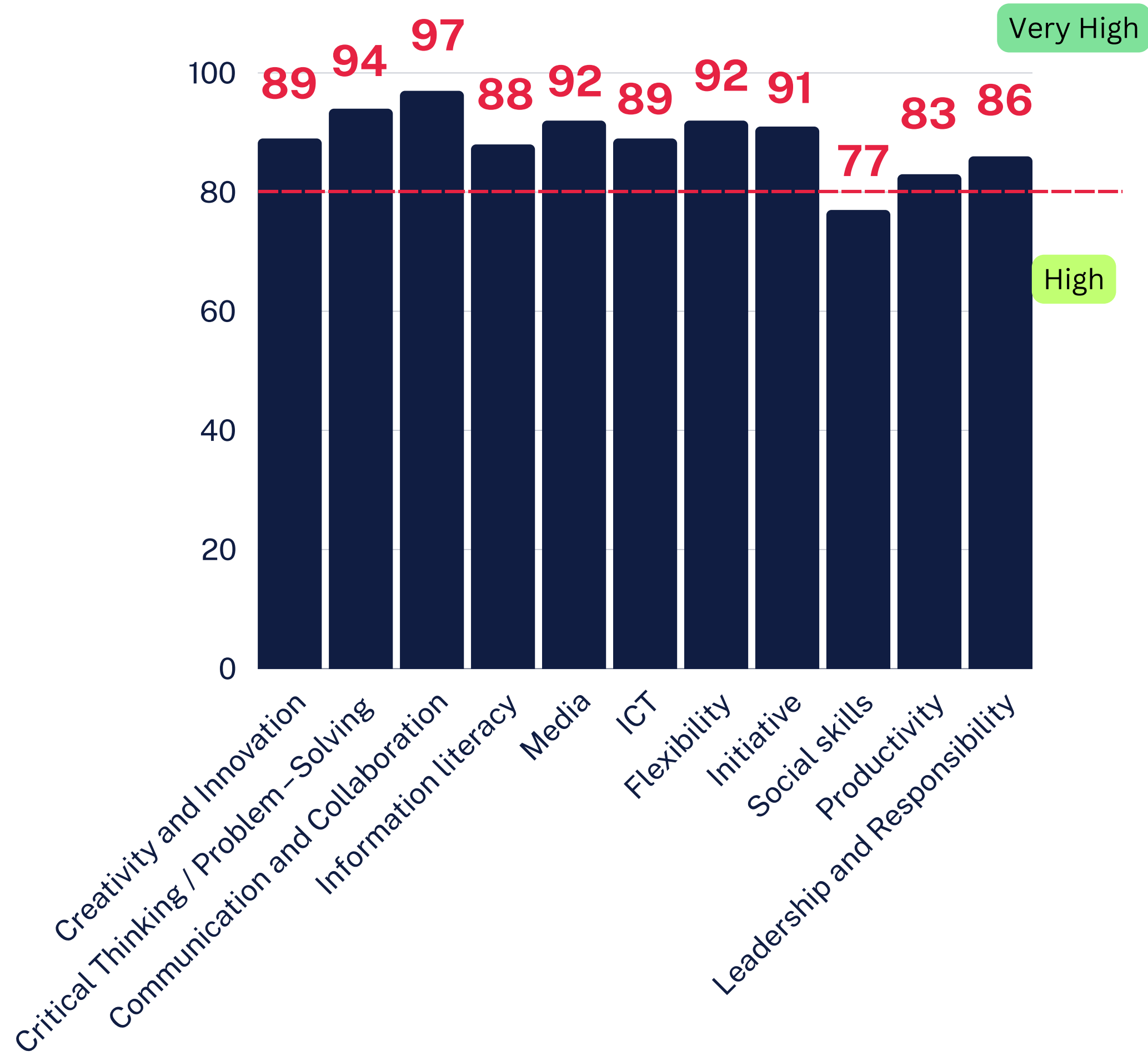
Academic year 2023



Development of Learning Skills in the 21st Century

for students who have completed the Earth system science curriculum

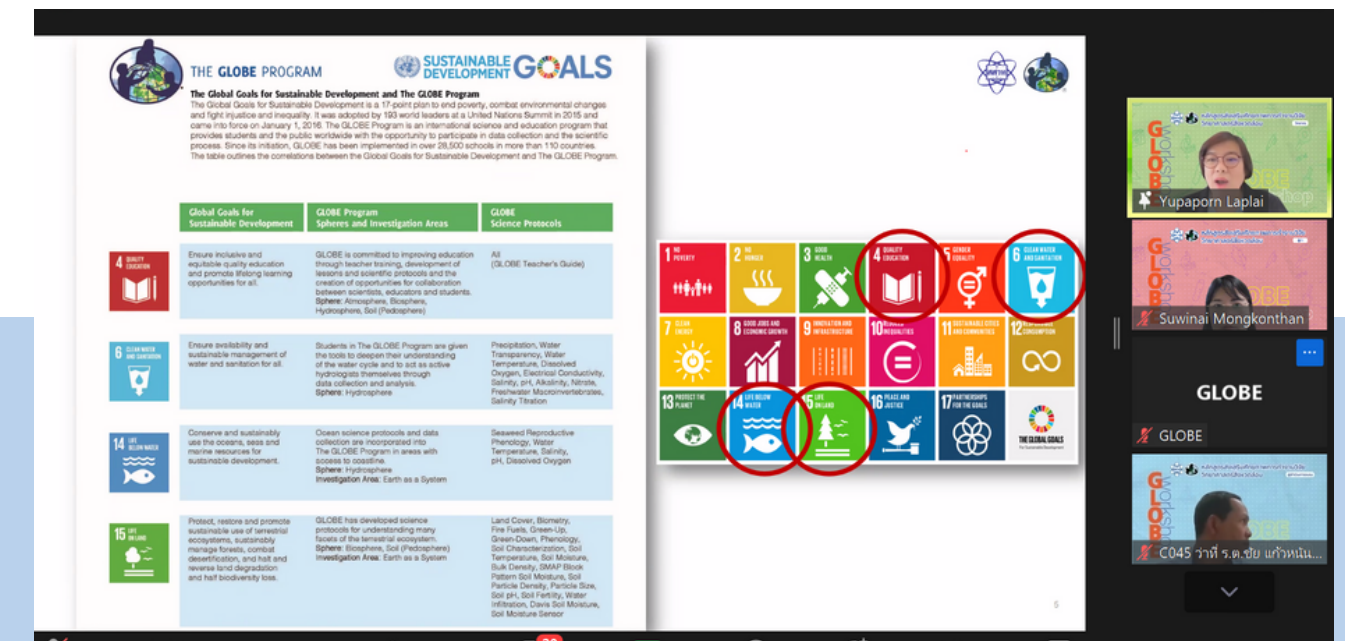
Academic year 2023



02 Online Training for Enhancing Teachers' Potential in Understanding Climate Change and Earth System Science

2.3 Training on Promoting Teachers' Potential in Environmental Science Research

- **7 workshops with 389 teachers** from 163 schools.
- The creation of topic for Performance Agreement through GLOBE activities.
- How to do research design with GLOBE Protocol: Case study on Biosphere/Hydrosphere/Pedosphere/Atmosphere
- Designing Simple Environmental Learning Materials
- Student Research on Carbon Storage in Trees



03 Online Training for Enhancing Teachers' Potential in Understanding Climate Promoting GLOBE Activities and Raising Awareness of Environmental Science

3.1 GLOBE Campaign

- **364 participants** (Students, teachers and citizen)
- World Water Day
- Earth Day
- Earth Day with RCO
- GLOBE Data Entry
- World Soil Day

GLOBE AROUND US 2023

GLOBE OBSERVER **CLOUDS**

 latitude: 3.76281 longitude: 100.78991 cloud cover: broken cirrocumulus: true opacity high: transparent measured at: 2023-07-04 solar measured at: 17:43 Direction: east	 latitude: 3.741631 longitude: 100.545204 cloud cover: overcast cirrocumulus: true opacity high: opaque measured at: 2023-07-07 Direction: South	 latitude: 3.76281 longitude: 100.78991 cloud cover: overcast cirrocumulus: true opacity high: opaque opacity low: opaque measured at: 2023-07-07 solar measured at: 07:58 Direction: North	 latitude: 3.76281 longitude: 100.78991 cloud cover: overcast cloud cover mid: scattered cloud cover low: isolated opacity mid: transparent opacity high: overcast sky visible: clear sky color: light blue measured at: 2023-07-07 solar measured at: 07:58 Direction: East	 latitude: 3.76281 longitude: 100.78991 cloud cover: overcast cloud cover mid: scattered cloud cover low: transparent opacity mid: transparent opacity high: overcast sky visible: clear measured at: 2023-07-07 solar measured at: 08:11 Direction: East
 latitude: 3.76281 longitude: 100.78991 cloud cover: none sky visible: clear sky color: deep blue measured at: 2023-07-07 solar measured at: 10:08 Direction: East	 latitude: 3.76281 longitude: 100.78991 cloud cover: scattered cloud cover high: scattered opacity high: transparent opacity low: transparent non-spreading contrails: 1 sky color: deep blue measured at: 2023-07-07 solar measured at: 10:10 Direction: West	 latitude: 3.76281 longitude: 100.78991 cloud cover: overcast cloud cover mid: overcast opacity high: opaque opacity low: opaque measured at: 2023-07-07 solar measured at: 10:08 Direction: North	 latitude: 3.76281 longitude: 100.78991 cloud cover: overcast cloud cover mid: overcast cloud cover low: overcast opacity mid: opaque opacity high: overcast measured at: 2023-07-07 solar measured at: 10:07 Direction: West	 latitude: 3.764424 longitude: 100.78543 cloud cover: broken cloud cover high: broken cloud cover mid: broken cloud cover low: scattered opacity mid: opaque measured at: 2023-07-07 solar measured at: 10:54 Direction: West
 latitude: 3.76281 longitude: 100.78991 cloud cover: overcast cloud cover mid: overcast opacity high: overcast opacity mid: opaque opacity low: scattered measured at: 2023-07-08 solar measured at: 11:17 Direction: East	 latitude: 3.76281 longitude: 100.78991 cloud cover: high cloud cover high: scattered opacity high: transparent opacity mid: transparent opacity low: translucent sky color: blue sky visible: clear measured at: 2023-07-09 solar measured at: 11:16 Direction: West	 latitude: 3.76281 longitude: 100.78991 cloud cover: high cloud cover high: scattered cloud cover mid: isolated opacity high: transparent opacity mid: transparent opacity low: translucent sky color: blue sky visible: clear measured at: 2023-07-09 solar measured at: 11:30 Direction: North	 latitude: 3.76281 longitude: 100.78991 cloud cover: high cloud cover high: isolated cloud cover mid: isolated opacity high: transparent opacity mid: translucent opacity low: translucent sky color: light blue sky visible: clear measured at: 2023-07-09 solar measured at: 11:34 Direction: North	 latitude: 3.765281 longitude: 100.78991 cloud cover: high cloud cover low: no cloud opacity mid: transparent opacity high: transparent opacity low: transparent sky color: blue sky visible: clear measured at: 2023-07-09 solar measured at: 11:18 Direction: East

PARITCHAYA VORNPUAN, M.5
Satit Prasarnmit Demonstration School

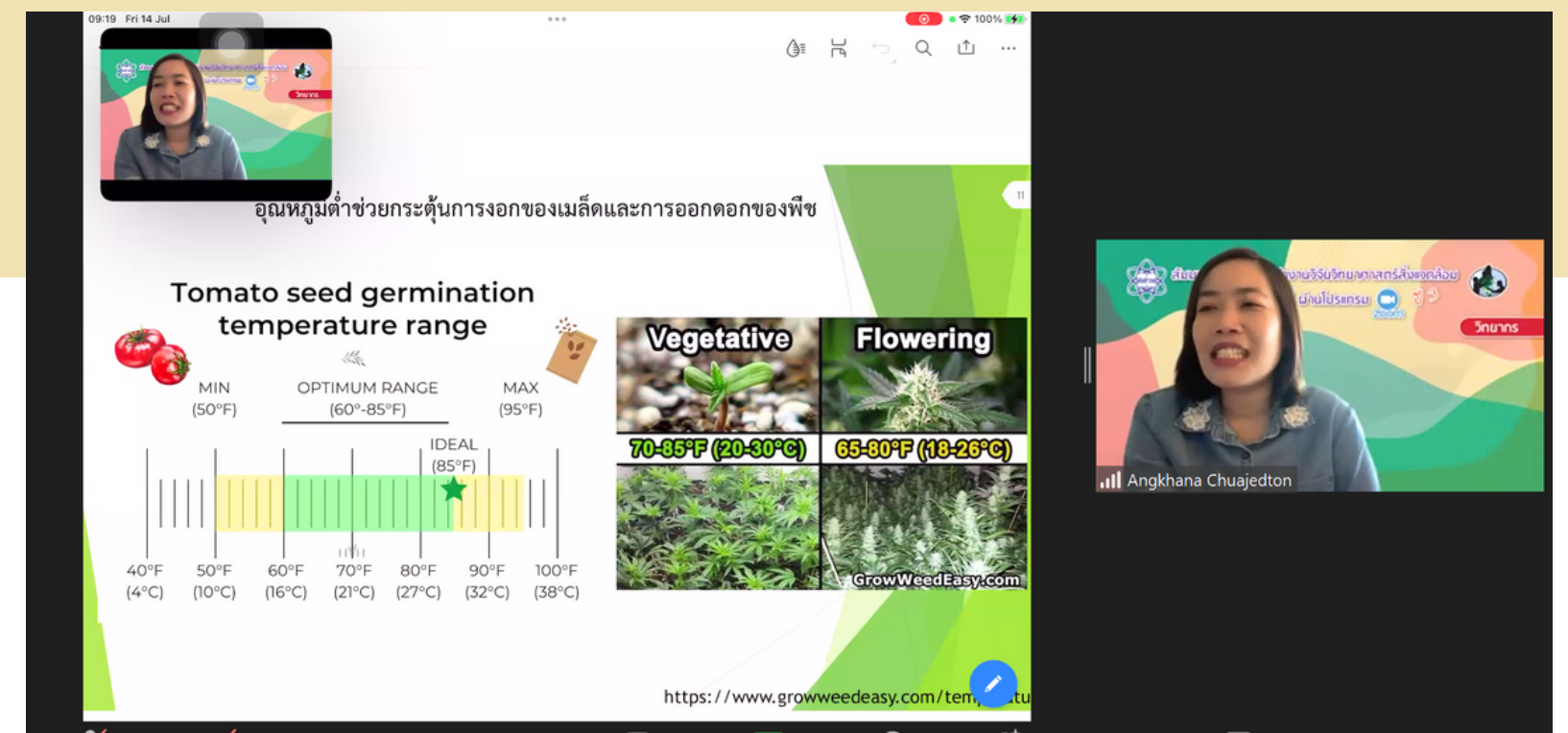
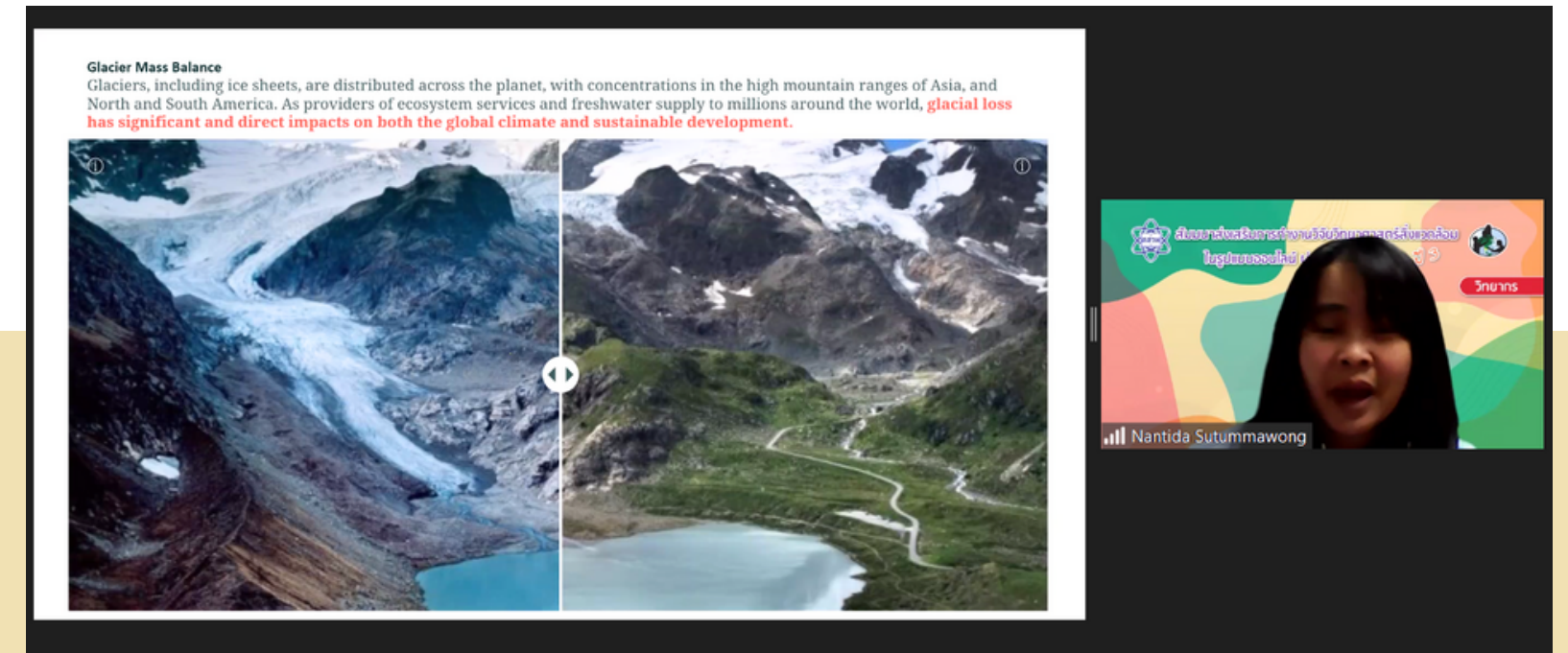


03

Online Training for Enhancing Teachers' Potential in Understanding Climate Promoting GLOBE Activities and Raising Awareness of Environmental Science

3.2 Promotion of Environmental Science Research Seminars

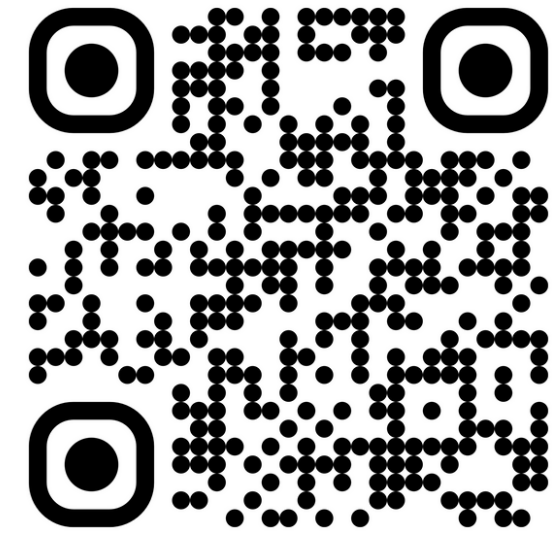
- 6 environmental science research online seminars
- **342 participants** (144 teachers, 183 students, and 15 citizen)
- Wetland and Research
- Climate Change and Bird migration in Thailand
- Nano Technology for Environment
- GLOBE Thailand Teacher Shining Star
- Plant and Climate Change
- The Use of Geographic Information Systems (GIS) in Research



04 GLOBE Media Development

2023 Student Journal of Environmental Science Research

- **27 research's** winners published online in GLOBE Thailand website (<https://imo2015.ipst.ac.th/ebook-globe2/>)



GLOBE Student Research Competition
ระดับประถมศึกษา 2023

ชื่อหนังสือ: การศึกษาเปรียบเทียบผลของพืชตระกูลถั่วชนิดต่าง ๆ ที่มีต่อความอุดมสมบูรณ์ดิน บริเวณโรงเรียนวาริชัยจังหวัดเชียงใหม่

คณะผู้วิจัย: เด็กผู้หญิง 5 คน โรงเรียนวาริชัย จังหวัดเชียงใหม่

อาจารย์ที่ปรึกษา: นางสาวนันทพร นันทพร และนางสาวณิชา นันทพร

โรงเรียน: วาริชัยจังหวัดเชียงใหม่ จังหวัดเชียงใหม่

งานวิจัย

การศึกษาเปรียบเทียบผลของพืชตระกูลถั่วชนิดต่าง ๆ ที่มีผลต่อความอุดมสมบูรณ์ดิน บริเวณโรงเรียนวาริชัยจังหวัดเชียงใหม่

- โรงเรียนวาริชัยจังหวัดเชียงใหม่

บทคัดย่อ

ปัจจุบันการได้ประโยชน์จากสิ่งมีชีวิตที่เป็นดินสามารถทำได้โดยการปลูกพืชต่าง ๆ ซึ่งมีความอุดมสมบูรณ์ของดินแตกต่างกันไป การปลูกพืชตระกูลถั่วเป็นพืชตระกูลถั่วที่ปลูกง่ายและโตเร็ว และมีความทนทานต่อโรคและแมลงศัตรูพืช การศึกษาเปรียบเทียบผลของพืชตระกูลถั่วชนิดต่าง ๆ ที่มีผลต่อความอุดมสมบูรณ์ดิน บริเวณโรงเรียนวาริชัยจังหวัดเชียงใหม่

วัตถุประสงค์ของการศึกษาคือ เพื่อศึกษาเปรียบเทียบผลของพืชตระกูลถั่วชนิดต่าง ๆ ที่มีผลต่อความอุดมสมบูรณ์ดิน บริเวณโรงเรียนวาริชัยจังหวัดเชียงใหม่

วิธีการศึกษา การศึกษาเปรียบเทียบผลของพืชตระกูลถั่วชนิดต่าง ๆ ที่มีผลต่อความอุดมสมบูรณ์ดิน บริเวณโรงเรียนวาริชัยจังหวัดเชียงใหม่

ผลการวิจัย พบว่า พืชตระกูลถั่วชนิดต่าง ๆ ที่มีผลต่อความอุดมสมบูรณ์ดิน บริเวณโรงเรียนวาริชัยจังหวัดเชียงใหม่

สรุปผล การศึกษาเปรียบเทียบผลของพืชตระกูลถั่วชนิดต่าง ๆ ที่มีผลต่อความอุดมสมบูรณ์ดิน บริเวณโรงเรียนวาริชัยจังหวัดเชียงใหม่

คำสำคัญ: พืชตระกูลถั่ว, การปลูกพืช, ความอุดมสมบูรณ์ดิน, การศึกษาเปรียบเทียบ

ผลการศึกษา

12

www.imo2015.ipst.ac.th/ebook-globe2/

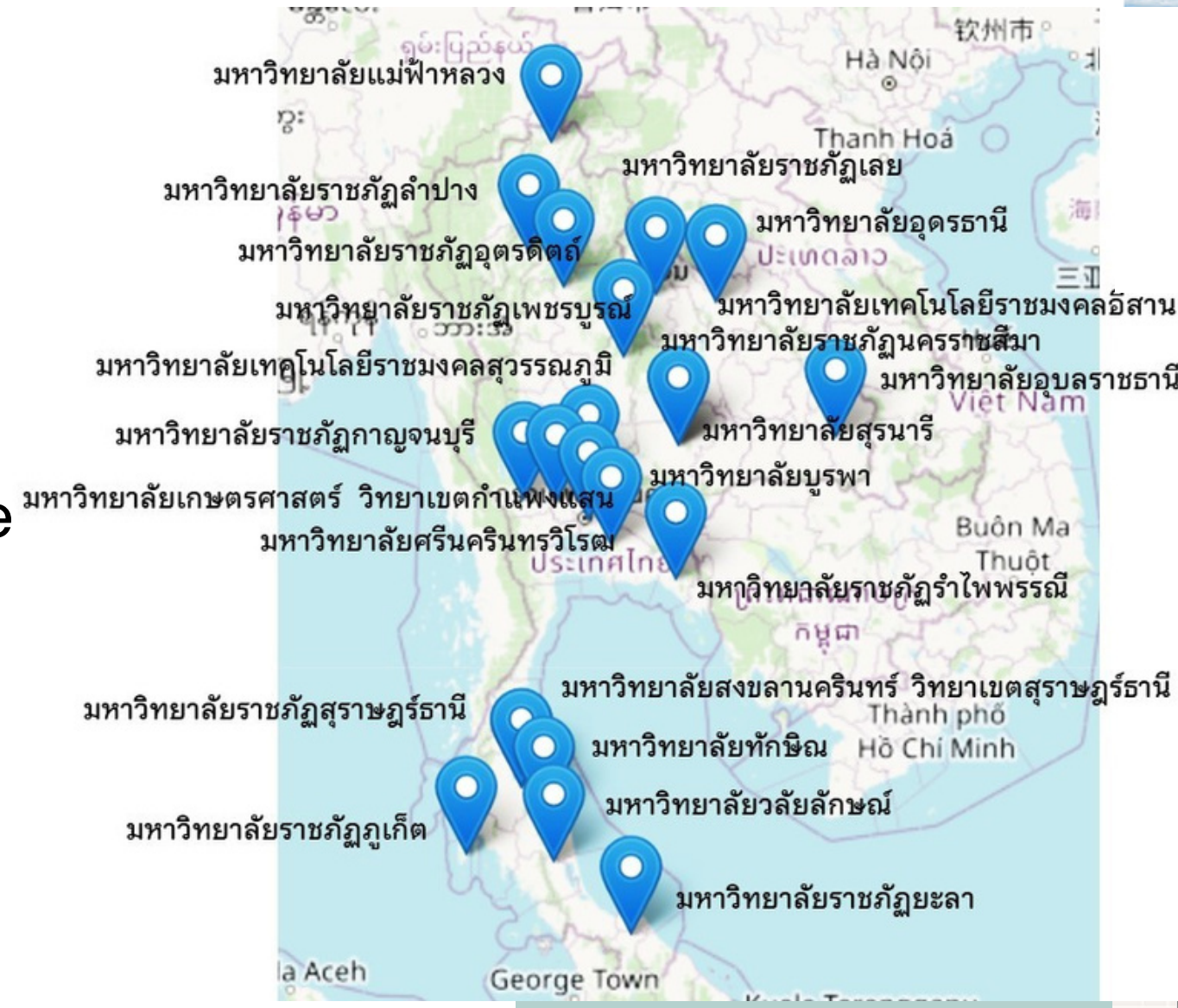
13

www.imo2015.ipst.ac.th/ebook-globe2/

05

Cooperation with Universities in Promoting Environmental Science Research Based on IPST Concept

- IPST collaborates with **22 GLOBE network universities** to develop students' knowledge and competence in conducting environmental science research in STEM education
- **2,138 students, 385 teachers**, and 134 projects from 128 schools



เรียนดำรงวิทยา อ.บันนังสตา จ.ยะลา

06

The Extension of GLOBE Research Program and Network to Strengthen Local Wisdoms in Rural Areas of Thailand

- granted by **U.S. Embassy to Thailand**
- IPST collaborated with 4 universities and 1 science high school to extend GLOBE program in **4 disadvantage schools** to do GLOBE Research to Strengthen Local Wisdoms in Rural Areas of Thailand.
- 6 researches were submitted to 2023 GLOBE IVSS



07 GLOBE Thailand Special Events

7.1 GLOBE Asia-Pacific Regional Meeting 2023

- Mrs. Yupapron Laplai attended GLOBE Asia-Pacific Regional Meeting 2023 at Hanoi, Vietnam



07 GLOBE Thailand Special Events

7.2 GLOBE Annual Meeting 2023

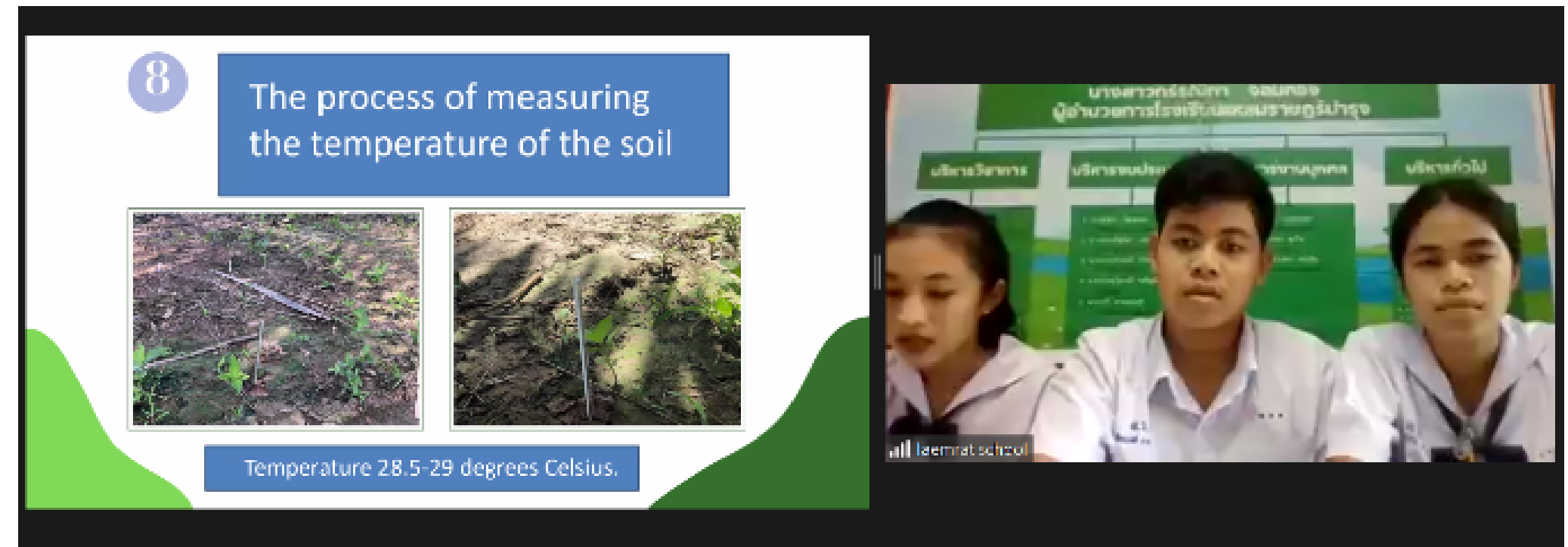
- Assoc. Prof. Dr. Thiradet Jiarasuksakun, President of IPST and Thailand Country Coordinator and Miss Samornsri Kanphai attended 2023 GLOBE Annual Meeting in July 17–20, 2023, Denver, Colorado, USA.




07 GLOBE Thailand Special Events

7.3 GLOBE Asia-Pacific Virtual Wetland Symposium

- 13 teams to present their research via online symposium



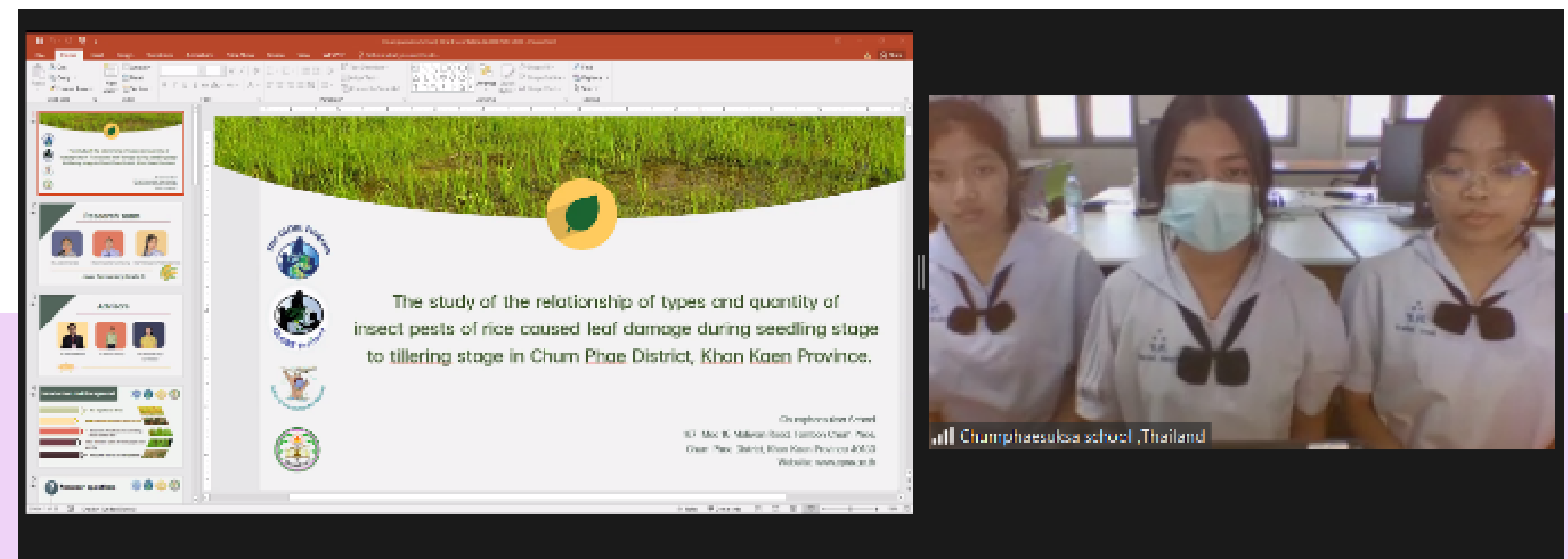
8 The process of measuring the temperature of the soil



Temperature 28.5-29 degrees Celsius.

leemrat school

This block shows a presentation slide titled '8 The process of measuring the temperature of the soil'. It includes two photographs of soil temperature measurement probes in a field and a text box stating 'Temperature 28.5-29 degrees Celsius.'. To the right is a video call with three students in white uniforms, with a 'leemrat school' label at the bottom.



The study of the relationship of types and quantity of insect pests of rice caused leaf damage during seedling stage to tillering stage in Chum Phae District, Khan Kaen Province.

Chumphaesuksa school, Thailand

This block shows a presentation slide with a green field background and a yellow leaf icon. The text on the slide reads: 'The study of the relationship of types and quantity of insect pests of rice caused leaf damage during seedling stage to tillering stage in Chum Phae District, Khan Kaen Province.'. To the right is a video call with three students in white uniforms, with a 'Chumphaesuksa school, Thailand' label at the bottom.

07 GLOBE Thailand Special Events

7.4 GLOBE Expedition to the Sea

- 5 students and 2 teachers from Princess Chulabhorn Science High School Trang, Thailand



07 GLOBE Thailand Special Events

7.5 GLOBE Thailand Awards 2023 (Virtual)

- 115 participants (45 teachers and 70 students)
- 29 awards were presented to the winner
 1. GLOBE Student Research Competition 2023 (21 awards)
 2. Thailand Junior Water Prize 2023 (6 awards)
 3. GLOBE Thailand Teacher Shining Star 2023 (2 awards)

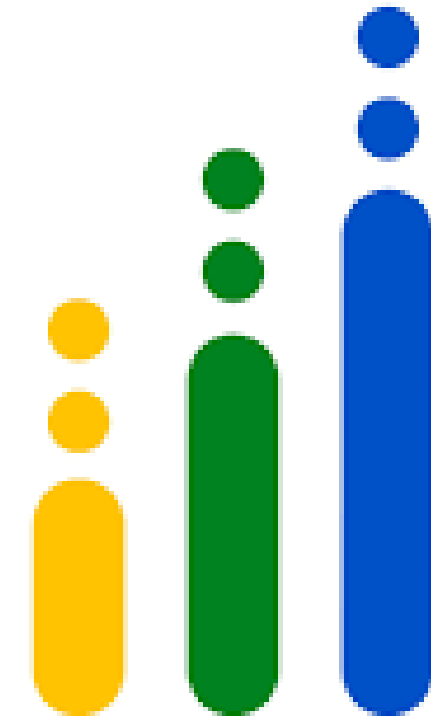


Future Plan 2024

ENVIRONMENTAL SCIENCE AND CLIMATE CHANGE LITERACY



UNICEF



The International Association for
the Future STEM Workforce -
IAFSW



Thank You



<http://globethailand.ipst.ac.th/>



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globeproject@ipst.ac.th