TROP ICSU Newsletter

September 2018

Climate Across the Curriculum: Locally Rooted, Globally Relevant Teaching Resources

From small communities in Alaskan villages and islands like Kiribati to larger populations on the U.S. coast and river deltas of Bangladesh and India, climate change could affect lands and people across the world. What is causing these changes? How can today's citizens and future generations adapt to the problems and mitigate the threats of climate change?

The TROP ICSU website contains a curated set of more than 100 teaching tools that can be used to *integrate climate education with core curriculum in Science, Mathematics, and Social Sciences*. These tools will help in understanding the science of climate change and in determining actions and policies to address the challenge. Some of these teaching resources are locally rooted in their context. As a teacher or educator, you could choose a tool that is more relevant to your region and thus, more effective in increasing awareness of the topic.

We are grateful to the teachers from Sri Venkateswara College (University of Delhi), India, for their interest in contributing to the creation of new lesson plans for the TROP ICSU project. We look forward to receiving more contributions from teachers across the world during our pilot workshops and other dissemination events.

In the near future, the TROP ICSU team, with the support of its global partners, will conduct workshops across the world to provide educators with an engaging, hands-on introduction to the teaching resources. Information about these workshops will be shared in the Upcoming Events section of this

We hope you enjoy reading this edition of our newsletter.
Thank you for your interest and support!
Team TROP ICSU
tropicsu@iubs.org
https://tropicsu.org/

E-learning Course: Impact of Climate Change on Cities

An e-learning course to understand how cities are impacted by and influence climate change.

Read more.

Classroom/Laboratory Activity: Determining Coastal Vulnerability to Sea-Level Rise

A classroom/laboratory activity to learn about the rate of sea-level rise and the response of shorelines to sea-level change.

Read more.

Mobile App: Glaciers of the World

A mobile app to learn about glaciers across the world.

Read more.

Locally Rooted, Globally Relevant Teaching Tools

Climate Change: Affecting Small Communities and Large Populations, Across Villages and Cities

Providing Examples from Every Continent:
Discuss the possible impact of climate change on the bloom date of North American lilac shrubs. Determine how ENSO events have affected the Huanghe River in China. Read an example of the climate refugee crisis in Bangladesh. Discover how climate change may

Contribute a region-specific teaching resource

Teachers and educators can choose a lesson plan or teaching tool from our website to teach a topic in **Science**, **Mathematics and Statistics**, **Social Science**, or **Humanities** with the help of examples, case studies, and exercises related to climate change.

Further, they can use a teaching tool

effects of climate change on Medieval Europe and the Roman Empire. Analyze historical temperature trends for Sydney, Australia. Read and discuss the impact of climate change on water systems in Bolivia.

Analyzing Data from the Polar Regions:
Perform linear regression analysis for Arctic sea ice data. Learn about how past climate can be recreated by analyzing isotopic data from the Vostok ice core in Antarctica.

Learning About a Global Challenge:
Was the English food crisis of 1258 caused by the eruption of a volcano in Indonesia?

potentially improve the learning outcomes.

Would you like to recommend a region-specific teaching resource that can be added to the collection on the TROP ICSU website?

Write to us at **tropicsu@iubs.org**.

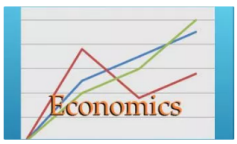
Explore our Teaching Tools

BIOLOGICAL SCIENCES

READ MORE

CHEMISTRY

READ MORE



ECONOMICS

READ MORE

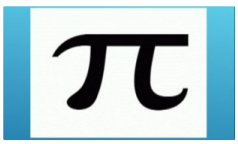
ENVIRONMENTAL SCIENCE

READ MORE

Teacher-submitted Lesson Plans

Two teacher-submitted lesson plans have now been published on the TROP ICSU website:
The Impact of Climate Change on Sex Determination in Sea Turtles
and
Teaching about Microbial Life and Climate Change

We are very grateful to the authors for their contribution.



MATHEMATICS

READ MORE

STATISTICS

READ MORE

HUMANITIES

READ MORE

SOCIAL SCIENCES

READ MORE

Do you have an idea for a lesson plan that integrates the teaching of a topic in your discipline with a topic in climate science or climate change?

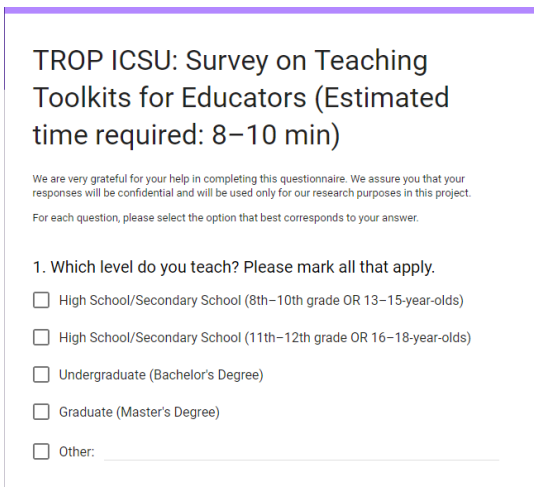
Write to us at tropicsu@iubs.org.

Survey for Educators

The TROP ICSU Educators Survey is available in 10 languages. We have received responses from countries in Asia, Africa, Europe, North America, South America, and Oceania. Thank you to all our survey respondents for their valuable inputs!

Please share the survey link with other teachers/educators in your network. We look forward to receiving a large number of responses from all regions of the world to help us create more effective and useful teaching resources.

https://tropicsu.org/educators-survey/



TROP ICSU: Survey on Teaching Toolkits for Educators (Estimated time required: 8–10 min)

We are very grateful for your help in completing this questionnaire. We assure you that your responses will be confidential and will be used only for our research purposes in this project.

For each question, please select the option that best corresponds to your answer.

1. Which level do you teach? Please mark all that apply.

- [ ] High School/Secondary School (8th–10th grade OR 13–15-year-olds)
- [ ] High School/Secondary School (11th–12th grade OR 16–18-year-olds)
- [ ] Undergraduate (Bachelor's Degree)
- [ ] Graduate (Master's Degree)
- [ ] Other: _____

The TROP ICSU team will conduct a **pilot workshop for teachers** at **New Delhi, India,** on **October 13 and 14, 2018**.

TROP ICSU

Around the Web: Resources to Teach Topics in a Discipline with Climate-related Examples

Resources for Teaching Chemistry through the Context of Climate Change

Visualizing the Chemistry of Climate Change, from The King's Centre for Visualization in Science

Ideas for Teaching Statistics by using Climate-related Data

Using Data from Climate Science to Teach Introductory Statistics, by Gary Witt, Temple University, in the Journal of Statistics Education