

# NGSS-ESS Webinar: Remote & Hybrid ESS Teaching & Learning Resources

September 10 2020

1:00 PM Pacific | 2:00 PM Mountain | 3:00 PM Central | 4:00 PM Eastern

The image shows a Zoom meeting toolbar with several icons. Below the toolbar, three callout boxes provide instructions:

- Unmute / Start Video:** Please leave your **audio muted** and **video off** (both indicated by a red slash).
- Participants:** Click to open the **Participants** box. This will allow you to give nonverbal feedback.  
Below this, a box shows five nonverbal feedback icons: raise hand (orange hand), yes (green checkmark), no (red X), go slower (blue left arrow), and go faster (blue right arrow).
- Chat:** Click to open the **Chat** box. This will allow you to chat with Hosts and Participants.  
Below this, a chat box is shown with the text "To: Everyone" and a "More" dropdown menu. The input field says "Type message here..."



**This webinar is being recorded**

# **NGSS-ESS Webinar:**

## **Remote & Hybrid ESS**

## **Teaching & Learning Resources**

Organizers:

Aida Awad, NAGT Past President / Secretary/Treasurer

Ed Robeck, American Geosciences Institute

Missy Holzer, NESTA

Mitchell Awalt, SERC/NAGT



# Webinar overview:

## Presenters:

Infiniscope

iVFT: Columns of the Giants

Teach The Earth

Model Evidence Link Diagrams Project

Snackbox Resources for Teachers and Parents

UNAVCO

Earth Science Week

OpenSciEd

AMS Education PD & Curriculum Resources

InTeGrate

Eos

- Discussion and Q&A
- Post webinar survey link:



# Upcoming webinars:

- October 15: NGSS-ESS Mini-series: MORE! Remote Teaching & Learning Resources, part 2
- The entire webinar archive is now available on the AGI YouTube Channel as a playlist!
- <https://www.youtube.com/user/AmericanGeosciences/playlists>



Please feel free to type your questions into the chat box during the webinar.

Today's presentation:

# Remote & Hybrid ESS Teaching & Learning Resources



# Infiniscope

A NASA-funded project creating digital learning experiences for all ages and an educator community of practice.

Each lesson contains:

- Full NGSS Alignment
- Adaptive Feedback
- Learning Metrics
- 5 E Lesson Plan
- Timelines
- Teacher Tips
- Misconception Alerts
- Time Management Tips

Find lessons on:

Moon Phases  
Eclipses  
Extinction  
Geologic time  
Kepler's Third Law  
and many more!

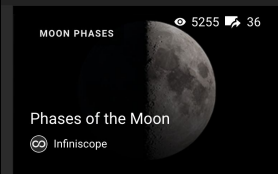
Join the network for access to

- Visualizations
- Contributed content from community members
- A community of practice.

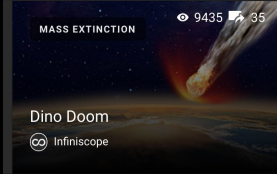
[www.Infiniscope.org](http://www.Infiniscope.org)  
[www.infiniscope.org/join](http://www.infiniscope.org/join)  
Contact: [jlswann@asu.edu](mailto:jlswann@asu.edu)

Find us on Facebook, Twitter, and  
Instagram @Infiniscope

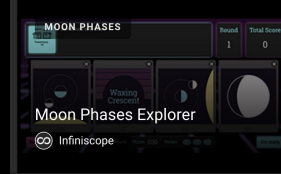
## Space Explorations



## Earth Explorations



## Visualization Library



## Contributed Content



# Infiniscope

The Future of Learning Online

## Phases of the Moon

# Celebrate Earth Science Week 2020!

Use materials in the Earth Science Week 2020 Toolkit:

- [Earth Science Week Poster](#)
- [Earth Science Activity Calendar](#)
- [Earth Science Week Toolkit](#)



And explore [Earth Science Week Online](#) resources:

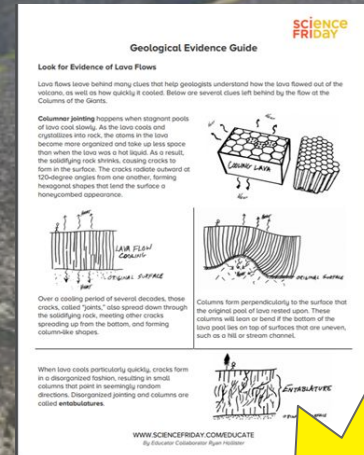
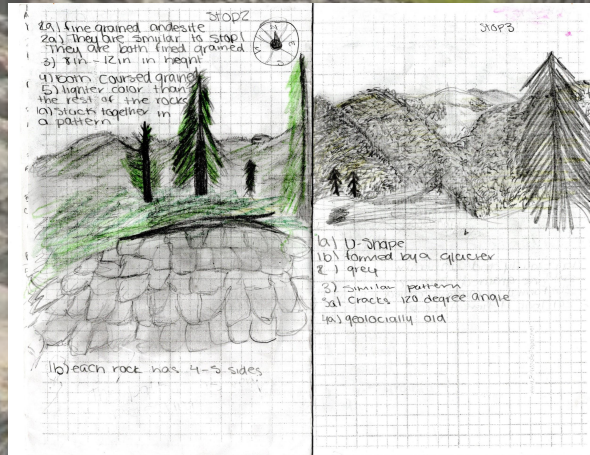
- [Earth Science Week Online Toolkit](#)
- [Minerals Day, October 12](#)
- [“Earth Materials Frontiers” Webinars](#)



# Columns of the Giants IVFE

## Utilizing NGSS SEP's to Scaffold Collaborative Student Discovery & Sense-making

<https://www.sciencefriday.com/photosphere>

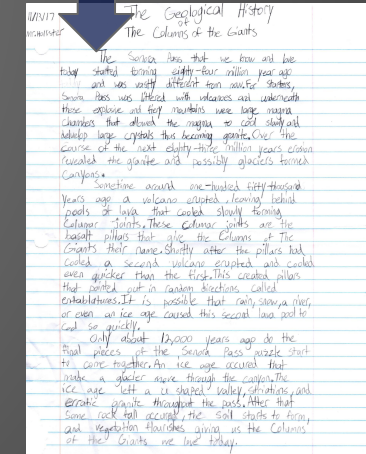
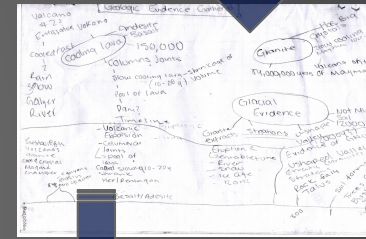
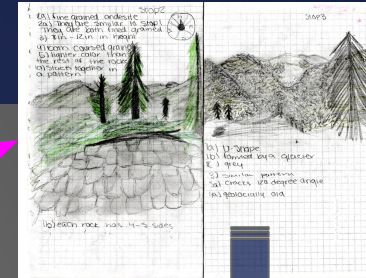


Works on  
any web  
browsing  
device!

Ryan J Hollister  
Science Coach –Turlock Unified School District (CA)  
Science Friday Educator Collaborator

# Columns of the Giants IVFE

<https://www.sciencefriday.com/photosphere>



## What Do Students Do on this IVFE?

### 1. Ask Questions and Define Problems

Students are allowed to explore, notice and wonder with freedom within the field site. Make field sketches.

### 2. Analyze & Interpret Data

Students use a customized field guide and guided questions to collaboratively make sense of the landscape in small groups (2 or 3).\*

### 3. Engage in Argument from Evidence.

Students partake in small group and large group scientific discussions to make geologic claims at each stop using annotated guiding questions\*

### 4. Construct Explanations.

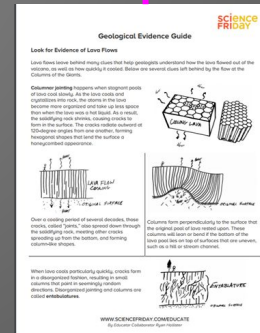
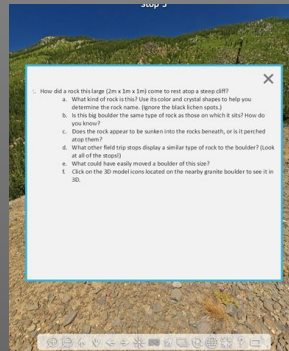
Students use their data and work collaboratively to synthesize a timeline of the geologic evidence they discovered\*

### 5. Obtain, Evaluate & Communicate Information.

Students individually use the timeline to create a story that explains the story. In this case, the formation of the Columns of the Giants.

- \* Updated lesson plans that use Jamboard / Breakout Rooms for distance learning collaboration are in the works.

## Students immersed in six high-resolution 360 photospheres and five high-resolution 3D models



## Tutorials & Resources Links (FREE!)

<https://www.mrhollisterphoto.com/super-science-saturday-2020.html>



# OpenSciEd

develops and supports adoption of  
high-quality open-source science materials

[www.opensci.ed.org](http://www.opensci.ed.org)

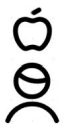
## Science Instructional Materials

OpenSciEd instructional materials are robust, research-based, open-source science instructional materials designed to increase accessibility for all teachers and students.

## Professional Learning

To support key instructional shifts in the Next Generation Science Standards, OpenSciEd has developed professional learning materials to accompany the instructional materials.

## OpenSciEd has Impacted:



**15,000+**

Registered Users



**265**

Field Test  
Teachers

**10**

Partner  
States



**20,000+**

Students  
Using OSE  
Materials

**5,000+**

Field Test  
Students



**7**

High-Quality Units





## 6-8 materials:

<https://www.openscienced.org/access-the-materials/>

## Professional learning materials:

<https://www.openscienced.org/access-the-pd-materials/>

## COVID-19 & Health Equity Units:

<https://www.openscienced.org/covid-19-health-equity/>

### Remote Learning support

Staying Grounded When Teaching Remote:

<https://www.openscienced.org/remote-teaching/>

Remote Learning Adaptations:

<https://www.openscienced.org/remote-learning-adaptations/>

[www.openscienced.org](https://www.openscienced.org)



**Elementary school development:**

mid-2021 start

**High School development:**

starts January 2021



- The idea behind **Teach the Earth** is the sharing of high-quality, classroom-tested education materials

- The idea behind **Teach the Earth** is the sharing of high-quality, classroom-tested education materials

<https://serc.carleton.edu/teachearth/index.html>

**Teach the Earth** is the portal to all things Geoscience education-related found on SERC.

- NGSS topics have been tagged and outlined in several projects, including CLEAN, GETSI, InTeGrate



CLEAN > Climate and Energy Educational Resources > CLEAN and NGSS

#### CLEAN

Climate and Energy Educational Resources  
CLEAN Collection

#### CLEAN and NGSS

NGSS Browse  
NGSS at a Glance  
NGSS Middle School Climate Systems  
NGSS Middle School Climate Solutions  
NGSS High School Climate Systems  
NGSS High School Climate Solutions  
About the CLEAN Collection  
Teaching Climate and Energy  
CLEAN Network  
TeACE  
Get Involved  
About this Project

### Teaching Climate and Energy with the Next Generation Science Standards

Climate and energy topics are a natural fit for NGSS. These subjects weave together science concepts with analyzing evidence, examining relationships between different parts of the Earth system, designing and evaluating solutions, and communicating findings.

Retrofitting our teaching with the Next Generation Science Standards is exciting, but also daunting. We've provided several tools to ease the transition and help you find useful materials and assemble them into complete lesson plans.



### Find NGSS-tagged materials in the CLEAN collection

Every item in the collection is tagged with the standards it meets. From there, we have three ways to find what you need.

1. [Use the NGSS browse](#) to find areas with the most overlap in NGSS.

This is a subset of the CLEAN collection with the most relevance to NGSS, brought to you by a quick and intuitive search tool.



2. For a more detailed search, use the [full search interface](#).

Use the filters to sort by any NGSS standard, grade level, topic, and/or keyword.



3. [Grab an overview](#) to search by a specific standard.

Skim the Performance Expectations and Disciplinary Core Ideas that are in the CLEAN collection. These



GETSI Teaching Materials > GPS, Strain, and Earthquakes > Unit 1: Earthquake!

GETSI's Earth-focused Modules for Undergraduate Classroom and Field Courses

[Learn More](#)

[Download](#)

#### « All Teacher GPS, Strain Earthquake!

Module C  
Unit 1: Earthquake!

Unit 2: M

physical

formatio

Unit 3: Gi

with GPS

Unit 4: Gi

finetism

analysis

Unit 5: 2t

Napa Ear

GPS strain

Unit 6: 2t

Napa Ear

GPS strain

Unit 7: 2t

Napa Ear

GPS strain

Unit 8: 2t

Napa Ear

GPS strain

Unit 9: 2t

Napa Ear

GPS strain

Unit 10: 2t

Napa Ear

GPS strain

Unit 11: 2t

Napa Ear

GPS strain

Unit 12: 2t

Napa Ear

GPS strain

Unit 13: 2t

Napa Ear

GPS strain

Unit 14: 2t

Napa Ear

GPS strain



These materials have been reviewed for their alignment with the Next Generation Science Standards as detailed below. Visit [InTeGrate](#) and the NGSS to learn more.

#### Overview

Students analyze and interpret data from the 2011 Tohoku, Japan, earthquake and tsunami to assess cause and effect relationships and the impact on society.

#### Science and Engineering Practices

**Obtaining, Evaluating, and Communicating Information:** Critically read scientific literature adapted for classroom use to determine the central ideas or conclusions and/or to obtain scientific and/or technical information to summarize complex evidence, concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. HS-P8.1.

**Constructing Explanations and Designing Solutions:** Make a quantitative and/or qualitative claim regarding the relationship between dependent and independent variables. HS-P6.1.

**Analyzing and Interpreting Data:** Compare and contrast various types of data sets (e.g., self-generated, archival) to examine consistency of measurements and observations. HS-P4.4.

#### Cross Cutting Concepts

**Stability and Change:** Stability might be disturbed either by sudden events or gradual changes that accumulate over time. MS-C7.3.

**Cause and effect:** Changes in systems may have various causes that may not have equal effects. HS-C2.4.

#### Disciplinary Core Ideas

**Natural Hazards:** Natural hazards and other geologic events have shaped the course of human history; [they] have significantly altered the sizes of human populations and have driven human migrations. HS-ESS3.B.1.

*for a Sustainable Future*

# AMS Education Program

**Foster scientific literacy in Earth system science**  
*with focus on the leveraging current data as a learning tool*

## We're a K-13 program with 2 Primary Activities:

- 1) Offering teachers Professional Development courses in Weather, Ocean, & Climate science
  - 50th Semester of online DataStreme courses, &
  - Two competitive summer courses, Project Atmosphere, & Project Ocean (formerly the Maury Project)



## 2) Creating and supporting Faculty to adopt complete digital curriculum packages for 3 undergraduate courses in weather, ocean & climate science


- Packages include e-text, lab manuals, web portals, faculty resources, and more
- We have activated more than 900 institutional licenses, half of which are from MSIs



We're celebrating our 30th anniversary this fall!

[ametsoc.org/amstedu](https://ametsoc.org/amstedu)

# Going Beyond the Controversy: *Promoting Critique, Evaluation, and Argument in Earth Science*



## The Model-Evidence Link Diagrams Project

Model-Evidence Link Diagrams Project

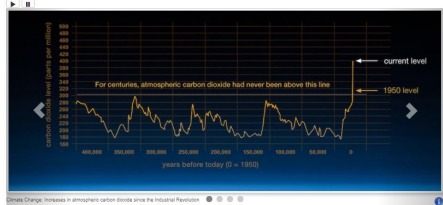
About

Teaching Resources

Professional Development

### Model-Evidence Link Diagrams Project

The purpose of our project is to promote students' scientific thinking when confronted with controversial and/or complex Earth and space science topics. We do this by using an instructional scaffold called the model-evidence link (MEL) diagram. We are currently adapting this scaffold to enable students to build their own MEL diagram, which we call the build-a-MEL (baMEL). Topics for MEL and baMEL activities include: climate change, earthquakes and tracking, wetlands use, formation of the moon, extreme weather, fossils and Earth's past, freshwater availability, and origins of the universe.



Climate Change: Increase in atmospheric carbon dioxide since the Industrial Revolution

### Plausibility of Models Explaining Climate Change

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Teacher: \_\_\_\_\_ Period: \_\_\_\_\_

Please work on this individually.

Read the following information carefully.

Humans create *models* to help explain things.

Below are two models. These provide different explanations for why global temperatures have increased over the past 100 years and average sea levels have increased over the past 50 years.

#### Model A: Climate change is caused by humans who are releasing gases into the atmosphere.

A person who supports this model makes the following argument:

*A few gases in Earth's atmosphere prevent some of Earth's energy from escaping out into space. Human activities are increasing the amount of these gases in the atmosphere. Therefore, humans are causing climate change.*

#### Model B: Climate change is caused by increasing amounts of energy released from the Sun.

A person who supports this model makes the following argument:

*The Sun is the main source of energy for planet Earth. Scientists have shown that for thousands of years Earth's average temperature increases when the Sun releases more energy. Therefore, the Sun is causing climate change.*

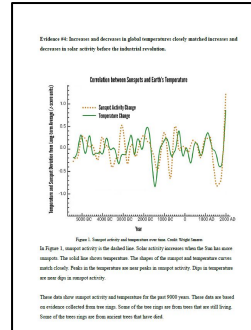
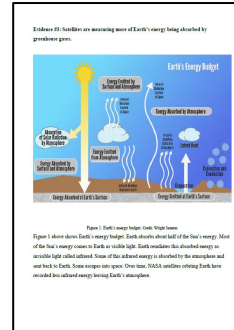
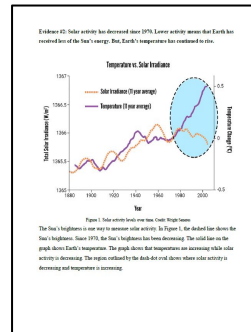
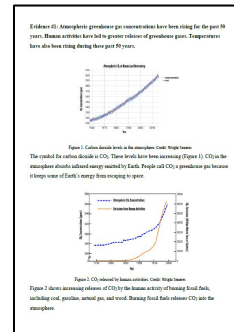
Plausibility is a judgment we make about the potential truthfulness of one model compared to another. The judgment may be tentative (not certain). You do not have to be committed to that decision.

Circle the plausibility of each model. [Make two circles, one for each model.]

	1	2	3	4	5	6	7	8	9	10
Model A										
Model B										

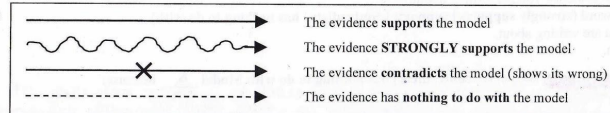
Highly plausible

<https://serc.carleton.edu/mel/index.html>



**Directions:** Draw 2 arrows from each evidence box, one to each model. You will draw a total of 8 arrows.

**Key:**



#### Evidence #1

Atmospheric greenhouse gas concentrations have been rising for the past 50 years. Human activities have led to greater releases of greenhouse gases. Temperatures have also been rising during these past 50 years.

#### Evidence #2

Solar activity has decreased since 1970. Lower activity means that Earth has received less of the Sun's energy. But, Earth's temperature has continued to rise.

#### Model A

Our current climate change is caused by increasing amounts of gases released by human activities.

#### Model B

Our current climate change is caused by increasing amounts of energy released from the Sun.

#### Evidence #3

Satellites are measuring more of Earth's energy being absorbed by greenhouse gases.

#### Evidence #4

Increases and decreases in global temperatures closely matched increases and decreases in solar activity before the industrial revolution.

1. Please work on this part individually after you complete your diagram. Now that you have completed the diagram, reconsider the plausibility of Models A and B (and C, if there is one). Circle the plausibility of each model. [Make one circle for each model.]

	Greatly implausible (or even impossible)										Highly plausible				
Model A	1	2	3	4	5	6	7	8	9	10					
Model B	1	2	3	4	5	6	7	8	9	10					
Model C (if there is one)	1	2	3	4	5	6	7	8	9	10					

What were your previous ratings? Model A: \_\_\_\_\_ Model B: \_\_\_\_\_ Model C (if there is one): \_\_\_\_\_

2. Did the plausibility of any of the models change after you completed the diagram? Yes or No [Circle One]

3. Which arrows changed your plausibility judgments about the models? If your plausibility judgments did not change, which arrows supported your original plausibility judgments? Use the following steps to provide an explanation for why your plausibility judgments did or did not change.

- Write the number of the evidence you are writing about. [Note: it is okay to include more than one evidence.]
- Circle the appropriate word (strongly supports | supports | contradicts | has nothing to do with).
- Write which model you are writing about. [Note: it is okay to include more than one model.]
- Then write your reason.

Evidence # \_\_\_\_\_ strongly supports | supports | contradicts | has nothing to do with Model \_\_\_\_\_ because:

4. In your final ranking, did you rank any Model as "1" or "10"? Yes or No [Circle One] Why? Why not?

## MEL Topics

Climate Change

Wetlands

Origin of the Moon

Fracking

## baMEL Topics

Freshwater

Extreme Weather

Origin of the Universe

Fossils

<https://serc.carleton.edu/mel/index.html>

## AGI NGSS-ESS Implementation Webinar Playlist: Thinking Scientifically in a Changing World





InTeGrate rigorously developed and tested curricular materials that...

- Address interdisciplinary grand challenges society is facing
- Engage students in the science and engineering practices, highlighting geoscientific thinking
- Make use of real-world data and issues
- Develop students' systems thinking
- Follow evidence-based practices in teaching and learning
- Are adaptable and adoptable by instructors in a variety of settings

## Using InTeGrate in Online or Hybrid Courses

Jump Down To: [Instructor Stories](#) | [Best Practices](#)

InTeGrate

system as  
interdisci  
authentica  
available  
courses in  
such as ge  
sciences,

A number of the modules and courses developed for InTeGrate were written specifically for use in online or hybrid classrooms.

### InTeGrate Webinar:

[Adapting InTeGrate Modules for Biology Courses and Online Courses](#)



Learn more about how faculty have adapted InTeGrate teaching materials for other disciplines and course formats.

### InTeGrate Interdisciplinary Distance Learning Courses »

In addition, one of the Implementation Programs (Penn State) focused specifically on broadening the reach of geoscience content via distance learning and two others (Clafin and Mercer) included faculty who used InTeGrate materials in their online courses.

Learn more



Pennsylvania State  
University Distance  
Learning Courses



CLAFIN UNIVERSITY  
SUSTAINABILITY INITIATIVE  
Clafin University CU  
InTeGrated!



Mercer University  
Providing Cultural and  
Regional Relevance to  
Issues of Global  
Sustainability

- [Int](#)
- [Tw](#)
- [La](#)

## How Instructors Across the Country Have Used InTeGrate Materials in Online and Hybrid Courses



## Search and browse InTeGrate using the NGSS

### How do I find what I want?

Use the links under **Refine the results** on the right to navigate all of the InTeGrate materials by cross-cutting concepts, science and engineering practices, disciplinary core ideas, and performance expectations.

Once you select a grade level, you can hover over the code to see the full text of the standards and their categories.

To search all InTeGrate materials by topics or themes in addition to the NGSS, you can use our [standard search tool](#).



The logo for the Next Generation Science Standards.

Title

Current Search Limits:

**NGSS** **High School** > **Earth and Space Sciences** > **HS-ESS3** > **HS-ESS3-1: Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.**

Results 1 - 10 of **33 matches**



**Unit 1: Slip-sliding away: case study landslides in Italy and Peru** part of Surface Process Hazards

Sarah Hall, College of the Atlantic; Becca Walker, Mt. SAC

How have mass-wasting events affected communities, and what lessons have we learned from these natural disasters that might help us mitigate future hazards? In this unit, students answer these questions by being ...

GETSI Developed



**Unit 5: Mitigating future disasters: developing a mass-wasting hazard map** part of Surface Process Hazards

Becca Walker, Mt. SAC

empty

GETSI Developed

### Refine the Results

#### NGSS Cross-Cutting Concepts

Middle School [19 matches](#)

High School [32 matches](#)

#### NGSS Science and Engineering Practices

Middle School [15 matches](#)

High School [27 matches](#)

#### NGSS Disciplinary Core Ideas

Middle School [17 matches](#)

High School [27 matches](#)

#### NGSS Performance Expectations

Show all

**High School** > **Earth and Space Sciences** > **HS-ESS3** > **HS-ESS3-1: 33 matches**

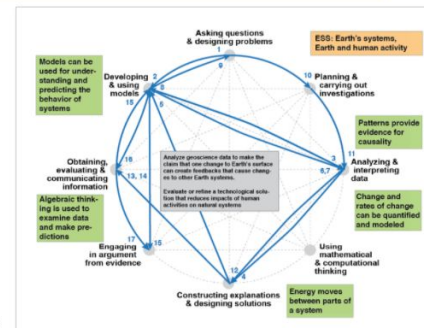
## Pathways to performance expectations

### Investigating Earth's climate and human impacts

*This investigation was compiled by Joe Behnke, Danielle DeRousse, and Kendra Robinson-Harding, participants in a 2018 workshop entitled [Connecting Earth science and sustainability to teach the NGSS](#), and edited by Anne Egger*

Students are expected not only to be able to develop and use models of Earth's climate system that illustrate feedbacks within the system, but also to evaluate the impact that humans are having on the climate system and consider design solutions that might mitigate those impacts.

The investigation described here is intended for a 9th-grade science class, and should take about three weeks. The steps in the investigation are illustrated in the diagram, showing the science and engineering practices that the student engage in along with major cross-cutting concepts and core ideas that will be developed. The steps are described in more detail in the table below.



The investigation will help students make progress towards three performance expectations:

- HS-ESS2-2: Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems
- HS-ESS3-4: Evaluate or refine a technological solution that reduces impacts of human activities on natural systems
- HS-ESS3-6: Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems.

## STEM focused lessons and activities for all students.

<https://www.imsa.edu/educator-development/e-teaching-resources/>

30 Snack boxes each with 4-9 resource links to trusted sites with hands-on activities in 5 grade bands plus a special series for summer.

### STEM for the Family, K-2, 3-5, 6-8, 9-12

Sample topics: Buttery Science, Engineering Toilet Paper, Science behind Ballet, Tracking Marine Mammals, Women Who Changed Science, Space Chef, Medieval Castles.



**NGSS Model Lessons** introduce educators to NGSS and three dimensional teaching for kindergarten through fifth grade. Each lesson includes a Teacher's Page and student resources that are available to download and use in classrooms.

[https://digitalcommons.imsa.edu/model\\_ngss\\_lessons\\_k\\_3/](https://digitalcommons.imsa.edu/model_ngss_lessons_k_3/)

[https://digitalcommons.imsa.edu/model\\_ngss\\_lessons\\_4\\_5/](https://digitalcommons.imsa.edu/model_ngss_lessons_4_5/)

Grade Level: Kindergarten

[Earth and Space Science - WHAT'S THE WEATHER?: Patterns](#)

[Engineering, Technology - BUILD A NEST: Changing the Environment](#)

[Engineering, Technology - WINTER CLOTHING CHALLENGE: Engineering](#)

[Life Science - ANIMAL COATS: Seasonal Change](#)




[Life Science - TIME TO EAT: Patterns in Survival](#)

[Physical Science - WHICH SHOVEL? Engineering Challenge](#)

**Which Shovel?**

Draw a ✓ in the box that best describes the shovel.

1. Should you **push** or **pull** this shovel?

	Push	Pull
		
		
		

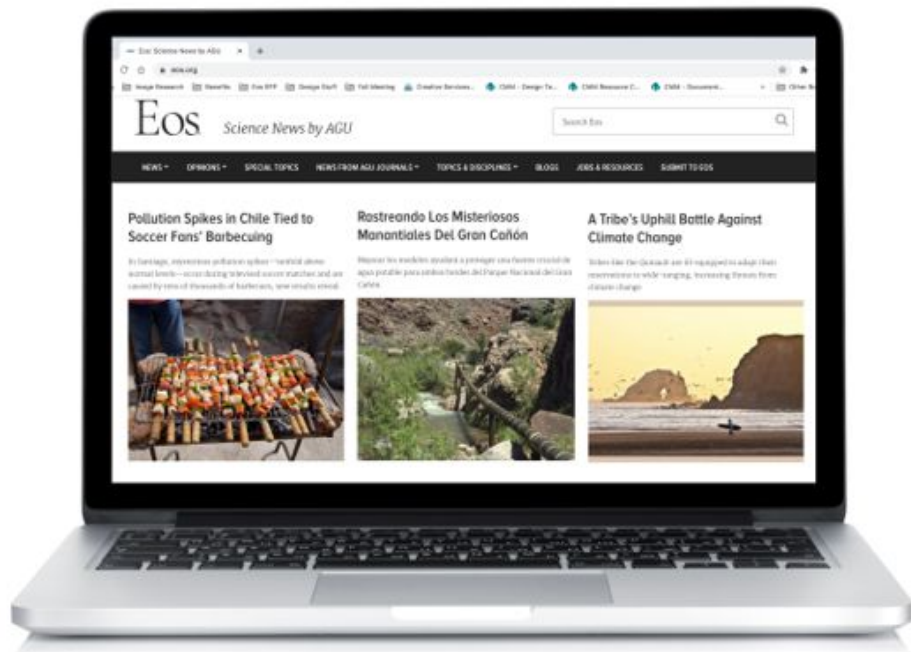
# Eos – Using Science News in the Classroom

## Eos.org

- Daily science news
- Ties geoscience to engaging, real world stories
- Accessible language level
- ~500 words per article

## Also

- Third Pod from the Sun podcast
- Spanish translations



**Eos**  
SCIENCE NEWS BY AGU

# Keep up with Eos

## Newsletters

- Eos Buzz – Editor-selected news
- Eos E-Alert – All newly published articles organized by topic
- Sign up: [bit.ly/eos-newsletters](https://bit.ly/eos-newsletters)

## Coming soon

New Educators Resource!

Get notified: [bit.ly/eos-education](https://bit.ly/eos-education)

Twitter @AGU\_Eos

[Eos\\_EIC@agu.org](mailto:Eos_EIC@agu.org)

[Eos.org](https://eos.org)





# Explore plate tectonics & *more* through GPS data

Full suite of education  
resources on the science  
of measuring the Earth  
aligned to NGSS and  
FREE!!



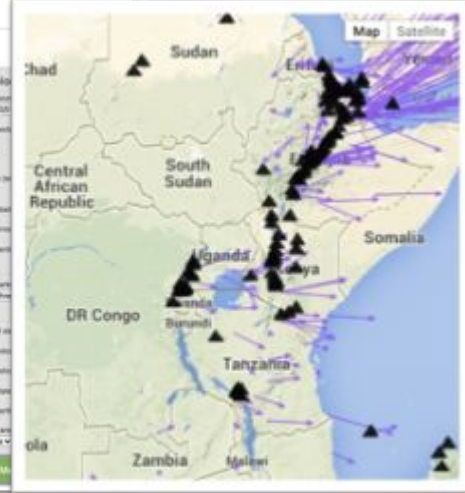
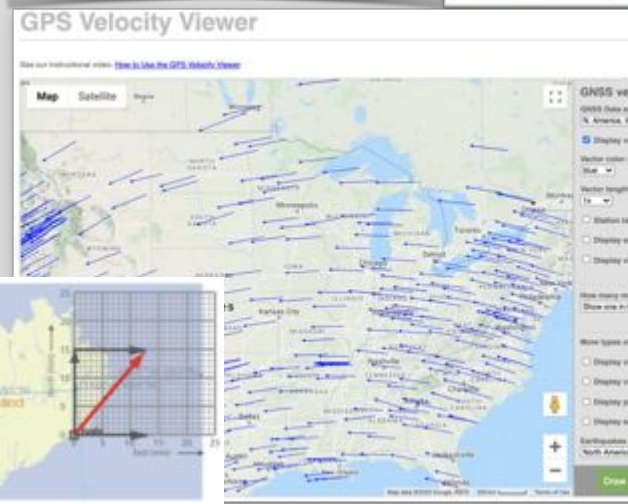
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Shelley E. Olds, UNAVCO  
September 10, 2020

Email us:  
education -at - unavco.org



# Dive into data about plate tectonics & *more*

- [Modules & Activities](#) - Explore plate tectonics, earthquakes, and volcanoes
- [Velocity Viewer](#): Interactive mapping data explorations
- [Animations & Career Spotlights](#) on YouTube
- [Hands-on Demonstrations](#) (*Do these at home too!*)
- [Educator packet](#) (*mini*)



# Post webinar survey:

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> Workshops > Implementing the NGSS > October 2018 Webinar > NGSS Post Webinar Survey

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Rate your overall satisfaction with this webinar.

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Rate the clarity of the presentation.

- ☐ 4 - Very clear
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Rate the content of this webinar in terms of its usefulness for your work.

- ☐ 4 - Highly valuable
- ☐ 3 - Valuable
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- ☐ 1 - Not valuable

**Post webinar survey:**  
**<http://nagt.org/239193>**



# Upcoming webinars:

- October 15: NGSS-ESS Mini-series: MORE! Remote Teaching & Learning Resources, part 2
- The entire webinar archive is now available on the AGI YouTube Channel as a playlist!
- <https://www.youtube.com/user/AmericanGeosciences/playlists>



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# Thank you for participating!

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# Celebrate Earth Science Week 2020!

Use materials in the Earth Science Week 2020 Toolkit:

- [Earth Science Week Poster](#)
- [Earth Science Activity Calendar](#)
- [Earth Science Week Toolkit](#)



## And explore Earth Science Week Online resources:

- Earth Science Week Online Toolkit
- Minerals Day, October 12
- “Earth Materials Frontiers” Webinars

