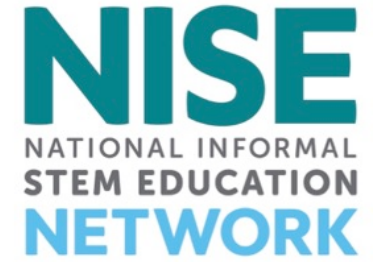


NISE Network Online Workshop

Changing the Conversation About Climate

May 1, 2018



Welcome! Today's presenters are:

John Anderson, New England Aquarium

Marci Benne, Oregon Museum of Science and Industry

Vicki Coats, Oregon Museum of Science and Industry

Rae Ostman, Arizona State University

David Sittenfeld, Museum of Science



As we wait to get started with today's discussion, please:

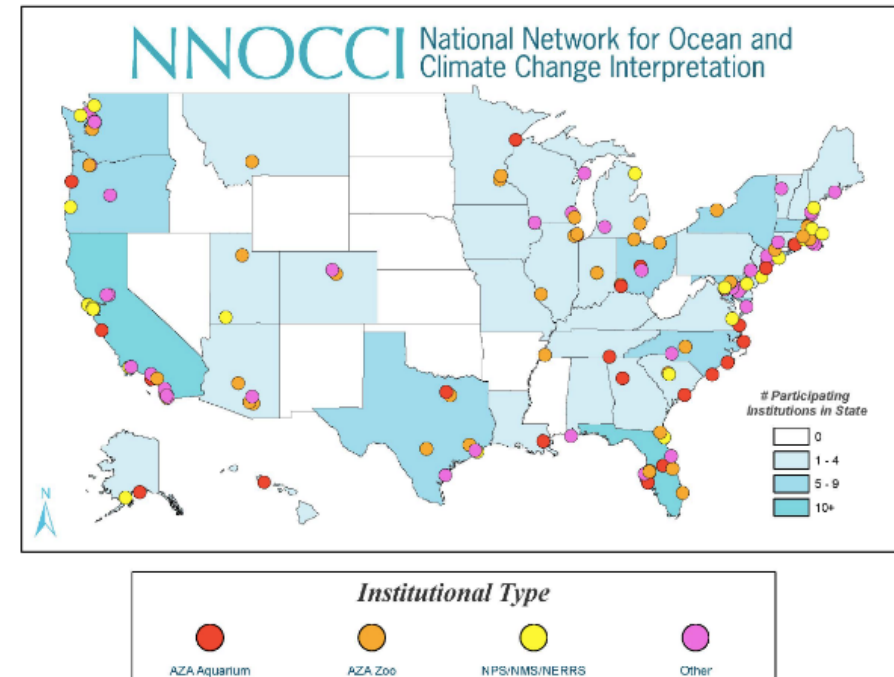
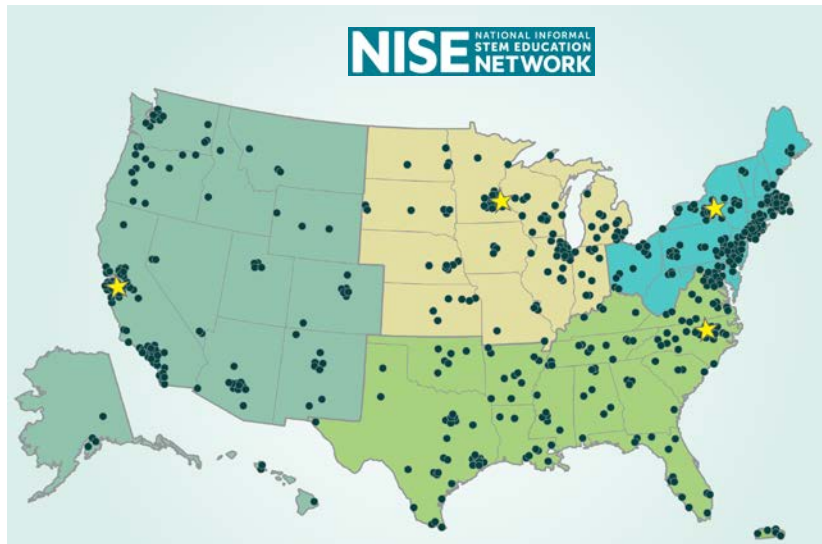
- **Update your display name.** Include your first and last names, and institution
- **Introduce yourself!** Type your name and institution into the Chat Box
- **Questions?** Feel free to type your questions into the Chat Box at any time throughout the online workshop or use the raise your hand function in the participants list and we'll unmute your microphone

All workshops are recorded and archived online at

<http://www.nisenet.org/event-type/online-workshop>

NISE Network and NNOCCI

- National networks with some overlap in partner organizations
- Complementary projects and approaches
- Sharing resources and exploring opportunities for collaboration



Changing the Conversation About Climate:

John Anderson, New England Aquarium

Marcie Benne, OMSI

Vicki Coats, OMSI

Rae Ostman, Arizona State University

David Sittenfeld, Museum of Science

NNOCCI National Network for Ocean and
Climate Change Interpretation

Goal for today:

- Inspire additional efforts to initiate climate change conversation and education
- Invite you to learn how to foster productive dialog and to model that for others

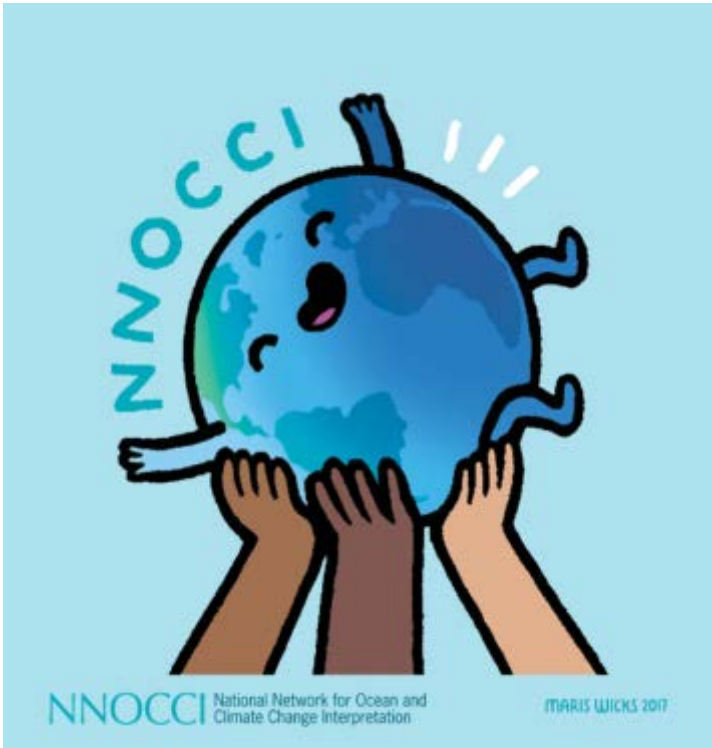
NNOCCI is a partnership among informal science educators, climate scientists, cognitive and social scientists and evaluators.



NNOCCI National Network for Ocean and Climate Change Interpretation

NNOCCI's Big Goal

Train enough trusted communicators in proven communication techniques to shift the national conversation about climate change to be more productive, creative and focused on solutions.



NNOCCI National Network for Ocean and
Climate Change Interpretation

Our opportunity:

- 1,500 informal science centers are visited by 61% of the US population
- By collaborating with multiple networks and communicators, we can start talking with the same language.

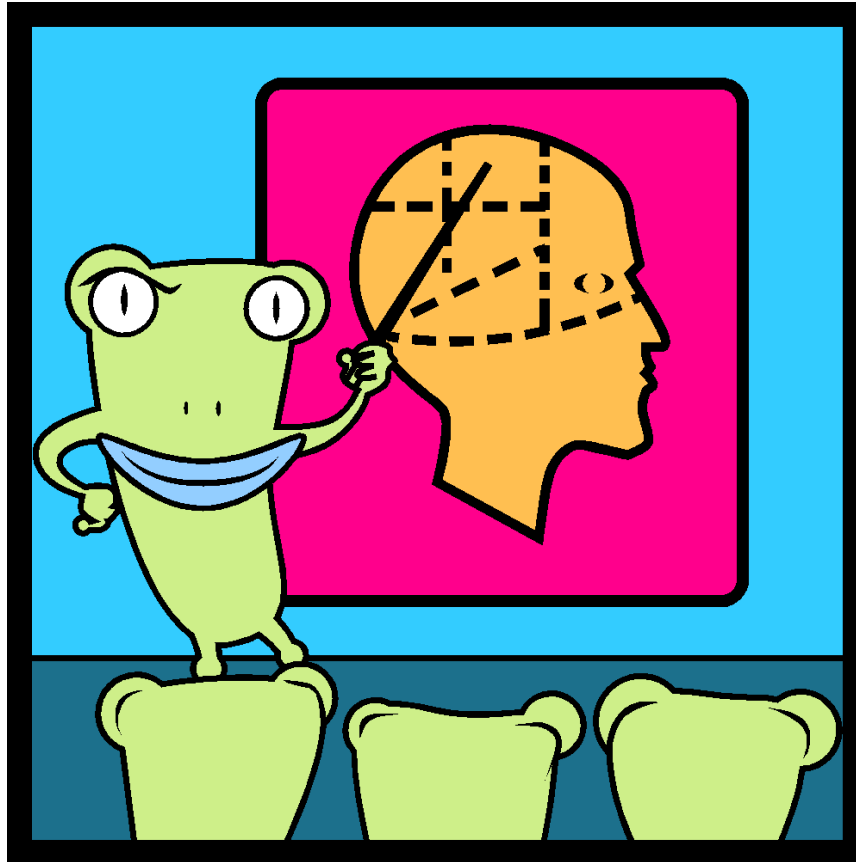


Effective climate action requires productive public discourse and civic engagement.



- 70% of Americans think climate change is happening now.
- Yet, 64% of Americans discuss climate change only occasionally or never.

Where do we start?



Knowing how
people think,
helps us
construct and
deliver our
messages for
highest impact.

Science

Curiosity and wonder
Science will save us
How do scientists know that?
Predictions are just guesses
New study every week
No solutions yet



Public Affairs

Civic responsibility
We can do it!
The ocean is a public resource
Government is good at protection
Politics as usual
Two sides to every story

Consumerism

Ecosystems are valuable resources
Cost-benefit thinking
Zero-sum thinking: jobs vs. environment
Bottomless grocery store
Eat it while you can!

Climate Change

Something needs to be done
It's weather
What can I *really* do?
Big, scary, depressing
My observation is as good as yours
Political football
It's about the ozone isn't it?



What's in the Swamp of...

Ocean and Climate Change

Progress

Americans are problem-solvers
Can't go back
Comes with costs
There are winners and losers

The Ocean

A shared public resource
Supports humans
It's all connected
A special, beautiful place
A different world
Drop in the bucket
Heals itself
All on the surface

Nature

We need to take care of it
Shared fate; one big web of life
Works in cycles
Mother Earth
Change is natural; you shouldn't/couldn't stop it

Pollution

Caused by humans
Dirty (not necessarily damaged or dead)
The root of all environmental problems
Just clean it up
Even if we do our part, other countries won't do their part

Strategic Framing is...

A research-based approach shown to:

- Bridge gaps in understanding (scientist -public)
- Increase public understanding of CC mechanisms
- Show how public can be 'heroes' in the CC story
- Leave visitors and interpreter with hope

The Core Story of Climate & Ocean Change

Why does this matter to society?

How does it work?

How do we improve the situation?

Tools in our Toolbox

Why Does
This Matter
to Society?



*Responsible
Management*



Protection

How Does it Work?



*Regular &
Rampant CO₂*



*Heat-trapping
Blanket*



*Osteoporosis
of the Sea*



Climate's Heart



Explanatory Chains

How Do We
Improve the
Situation?



*Community-
level Solutions*

Why Does This Matter to Society?

The absolute first part of your story is why someone should care about climate change. If you don't clue people into this idea first, they'll tune you out.

It's important to align climate change as an issue that people already care about, so that climate change doesn't compete for time and attention with other issues in their lives.

Why Does This Matter to Society?



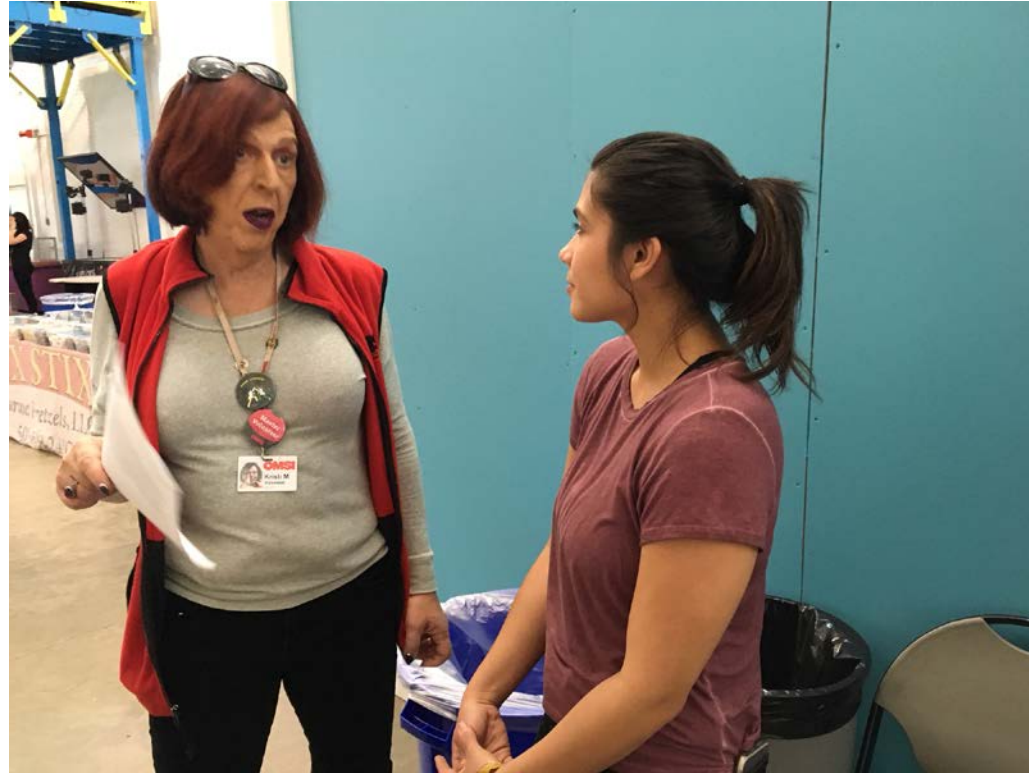
*Responsible
Management*



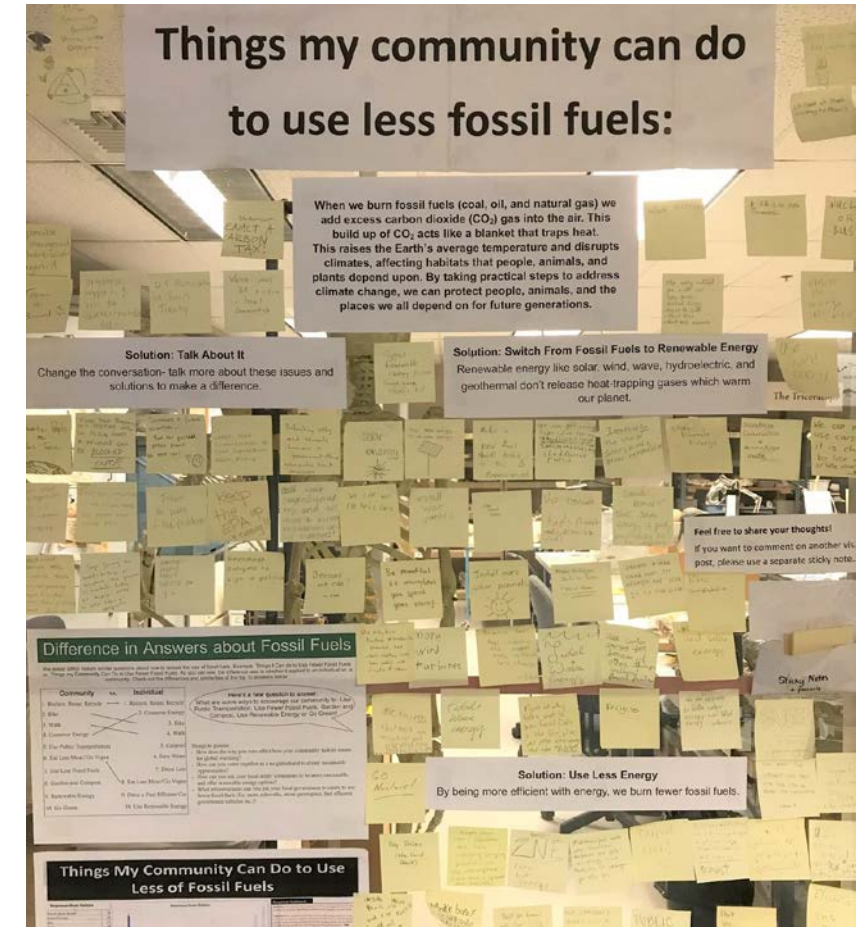
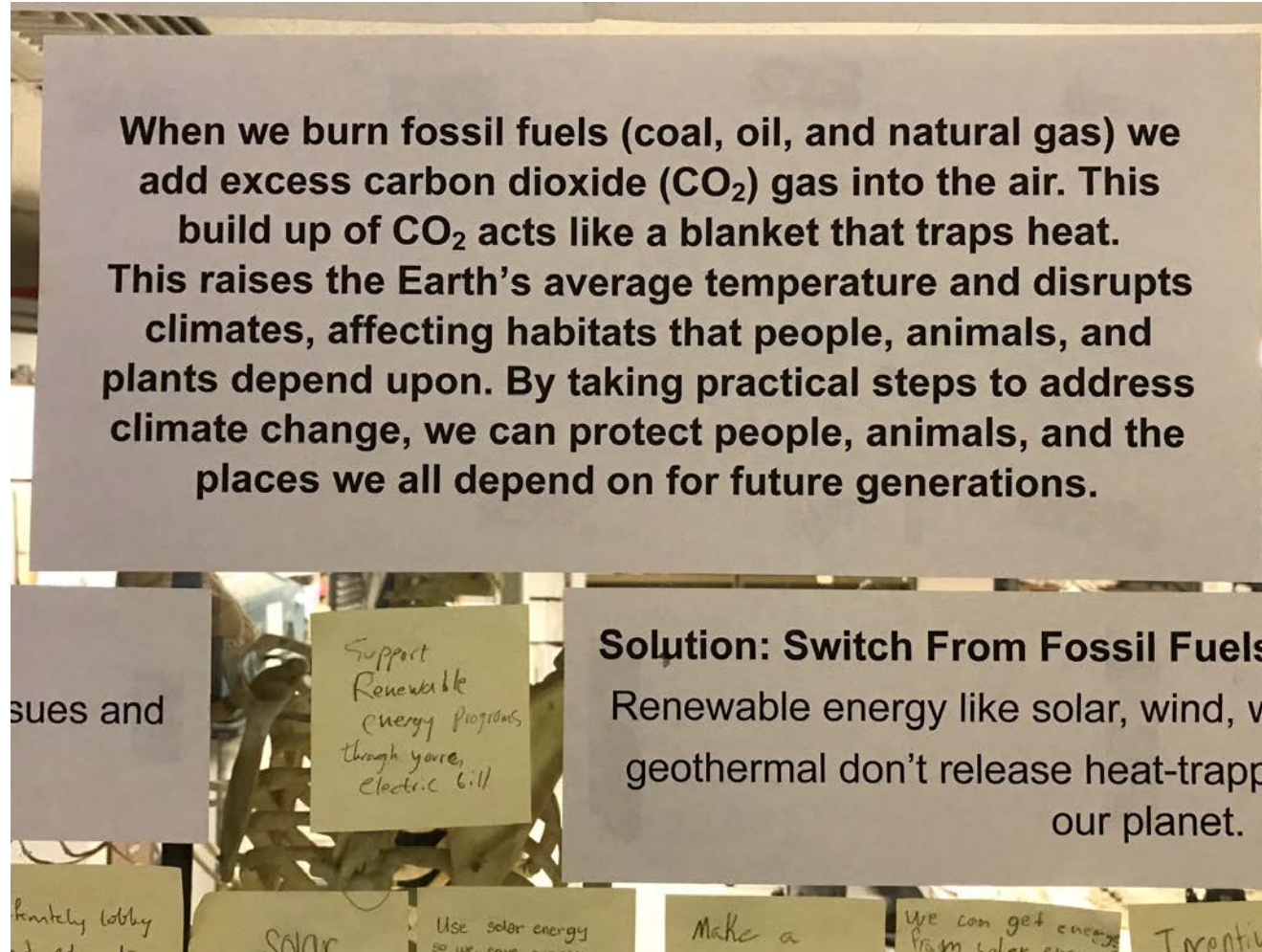
Protection

Climate Change Communication Plan

- From the plan:
Climate change ... affects the land, water and climate that people, animals, and plants depend on. By taking practical steps to address climate change, we can protect people and the places we all depend on for future generations.



post-it note talk-back board



Tools in our Toolbox

Why Does
This Matter
to Society?



*Responsible
Management*



Protection

How Does it Work?



*Regular &
Rampant CO₂*



*Heat-trapping
Blanket*



*Osteoporosis
of the Sea*



Climate's Heart



Explanatory Chains

How Do We
Improve the
Situation?



*Community-
level Solutions*

A good explanatory chain will:



- Walk people through the issue.
- Connect the science to the solutions and the story to the subject at hand.
- Motivate productive consideration of multiple solutions
- Give people a role in the story.



Explanatory Metaphor

Regular and Rampant CO₂

A metaphor for anthropogenic carbon dioxide



The story you're telling:

"Regular" carbon dioxide is used and created by normal life processes, but "Rampant" levels of carbon dioxide come from burning fossil fuels for energy. We need to reduce rampant CO₂. It's getting out of control.



Strategically redirects thinking away from patterns such as:

- CO₂ Is Natural Therefore It Is Good • Carbon Dioxide = Carbon Monoxide
- Ocean Problems = Material Pollution • Nature Will Fix Itself • Solution = Recycling
- Change Is Natural/Fatalism • It's the Ozone, Right?



Explanatory Metaphor

Osteoporosis of the Sea

A metaphor for some of the effects of ocean acidification



The story you're telling:

Change in the chemistry of the ocean and causes "osteoporosis" in animals at the bottom of the food web from building and maintaining the protective shells they need to survive.



Strategically redirects thinking away from patterns such as:

- Nature Works In Cycles • Ocean Acidification—What's That? • It's Gonna Be Harmed • Ocean Problems = Material Pollution



Explanatory Metaphor

Climate's Heart

A metaphor for the role of the ocean in the climate system



The story you're telling:

The ocean regulates blood and regulates the body's temperature, circulation of heat and moisture throughout the world.



Strategically redirects thinking away from patterns such as:

- Fatalism • Climate = Weather • Climate System • Nature Will Heal Itself • Ocean and Land = Separate • Big to Be Harmed • Ocean Problems = Material Pollution • Science Is Uncertain



Explanatory Metaphor

Heat-Trapping Blanket

A metaphor for the basic mechanism of climate change



The story you're telling:

When we burn fossil fuels for energy, we add more and more carbon dioxide into the atmosphere. This buildup acts like a blanket that traps heat around the world, which disrupts the climate.



Strategically redirects thinking away from patterns such as:

- Change Is Natural/Fatalism • It's About the Ozone, Isn't It? • Nature Will Fix Itself
- Nature Works In Cycles • Solution = Recycling

UNDER the ARCTIC

Digging into Permafrost

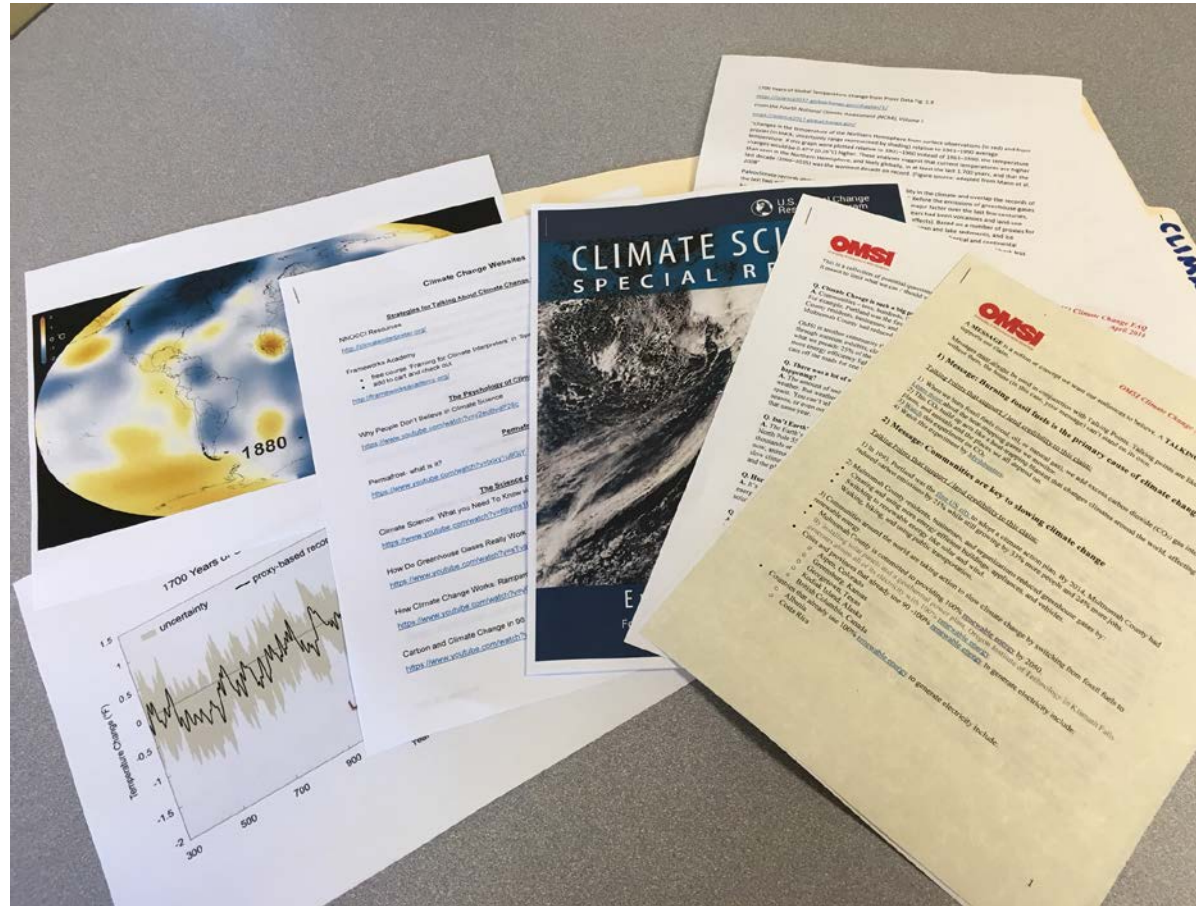


<https://omsi.edu/products/under-the-arctic-digging-into-permafrost>

classes & programs for visitors



Climate change resource folder for staff



Tools in our Toolbox

Why Does
This Matter
to Society?



*Responsible
Management*



Protection

How Does it Work?



*Regular &
Rampant CO₂*



*Heat-trapping
Blanket*



*Osteoporosis
of the Sea*



Climate's Heart



Explanatory Chains

How Do We
Improve the
Situation?



*Community-
level Solutions*

How Do We Improve the Situation?



Community-level Solutions

The Solutions frame
element fosters hope and
instills a sense of agency
and efficacy.

Solutions as a Framing Element

- Framing with Solutions involves describing evidence -based policies, programs, or initiatives that address the problem that is the topic of the communication.
- Foster issue engagement and hope by framing climate change as a problem that can be addressed at a collective level through practical steps by an informed, engaged citizenry.



*(or moving from
fossil fuels toward
renewable energy)*



*(or reducing our
demand for and
use of fossil fuels)*



*(or empowering others
to raise the topic of
climate change in
more settings)*

Collective

Local

Existing

training for staff & volunteers



sustainability committee



Wrap Up

- Keep a reasonable tone, one that is calm, optimistic and professional
- Start with a tested value
- Clearly state the problem and the solutions
- Use tested and relevant explanatory metaphors
- Talk about who is responsible, (not who is to blame)
- Stay away from myths and misconceptions
- The audience should be able to answer the questions —
 - “Why does this matter to society?”
 - How does it work?
 - How do we improve the situation?

In Person Workshops:

6 Hour Workshop

OMSI in Portland, OR

High Desert Museum in Bend, OR

September/ October - Dates TBD



Christina Cid, High Desert Museum
Carolyn Nesbitt, High Desert Museum
Sue Wu, OMSI

Questions? Contact:

swu@omsi.edu

Continue your framing practice with these Resources:



Find a practice partner!

- Find someone you trust and share this information with him/her/them, and talk about it.

Set up a profile on ClimateInterpreter.org

- Access to resources, articles & community feedback!

Try our Free Online Course as a refresher

- <https://tinyurl.com/NNOCCLfree>

Stay Connected to Our Community



- www.nnocci.org
- Follow us on Facebook: National Network for Ocean and Climate Change Interpretation
- Follow us on Twitter: @_NNOCCI
- John Anderson, NEaq. janderson@neaq.org
- Vicki Coats, OMSI, VCoats@omsi.edu

Get Involved

Learn more & access the NISE Network's
online digital resources:

nisenet.org

Subscribe to the
monthly newsletter:

nisenet.org/newsletter

Follow NISE Net on
social networking:

nisenet.org/social



New Opportunities with the NISE Net

Explore Science: Let's Do Chemistry Kit

Applications due June 1, 2018

Kit Overview document & how to apply:

nisenet.org/chemistry-apply



Explore Science: Earth & Space 2019 Toolkit

Application opens later this year

Information, including links to the 2017 & 2018 past digital toolkits:

nisenet.org/earthspacekit



Upcoming Online Workshops



Museum Community Partnerships – Afterschool Programs: Advocating, Collaborating, and Bringing Earth and Space Content to Out-of-school Time

Tuesday, May 22, 2018

2pm-3pm Eastern/ 11am-12pm Pacific

Be Prepared: Safety Tips and Reminders for Museums Running Public Events, Including National Chemistry Week and Earth and Space Events

Tuesday, June 12, 2018

2pm-3pm Eastern/ 11am-12pm Pacific

<http://www.nisenet.org/events>

Thank You!