



# Communicating Climate Change

## Upper Mississippi River Conference 2024





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# Learning Objectives

-  Identify characteristics of audiences.
-  Identify challenges to understanding climate information.
-  Replace jargon words with meaningful words.
-  Practice strategies for improved communication.

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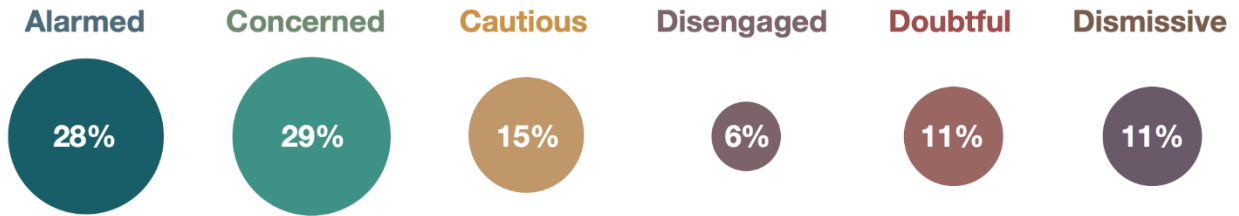
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# The “Six Americas” of Climate Change



Global Warming’s Six Americas, Fall 2023  
Base: 1,033 U.S. adults  
Source: Yale Program on Climate Change Communication;  
George Mason University Center for Climate Change Communication




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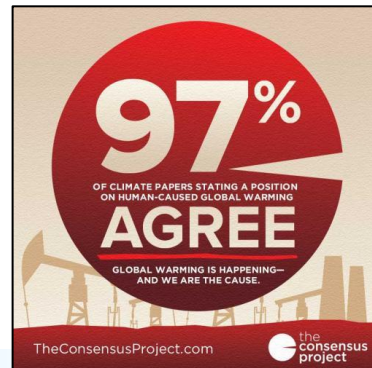
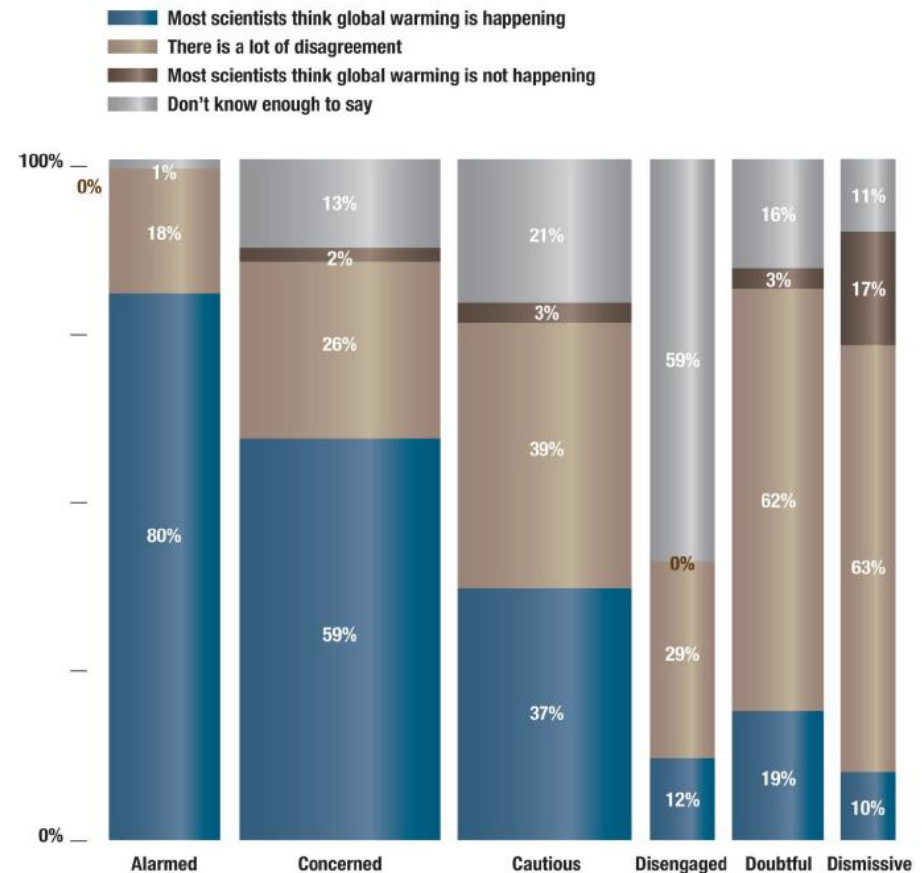
-  **Alarmed/concerned:** egalitarian, independent or Democratic/liberal, female, moderate income, Catholic, Hispanic
-  **Doubtful/dismissive:** Republican, individualist, male, moderate to high income, evangelical/ “born-again”, white
-  **Disengaged/cautious:** low income, high school education or less, black

# The “Six Americas”

Alarmed/concerned more likely to see agreement

Dismissive/doubtful more likely to perceive disagreement

Disengaged often don't know enough to say



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# Challenges to Understanding

- 🌐 **Climate and science literacy is low**
- 🌐 Climate is not tangible, not intuitive, complex, non-linear, confused with weather
- 🌐 Media has portrayed false “2-sides” debate, mischaracterized climate science, misrepresented uncertainty
- 🌐 **Science of climate intertwined with politics of responding to climate change**
- 🌐 Confirmation bias makes people seek, prefer information that is consistent with what they already believe

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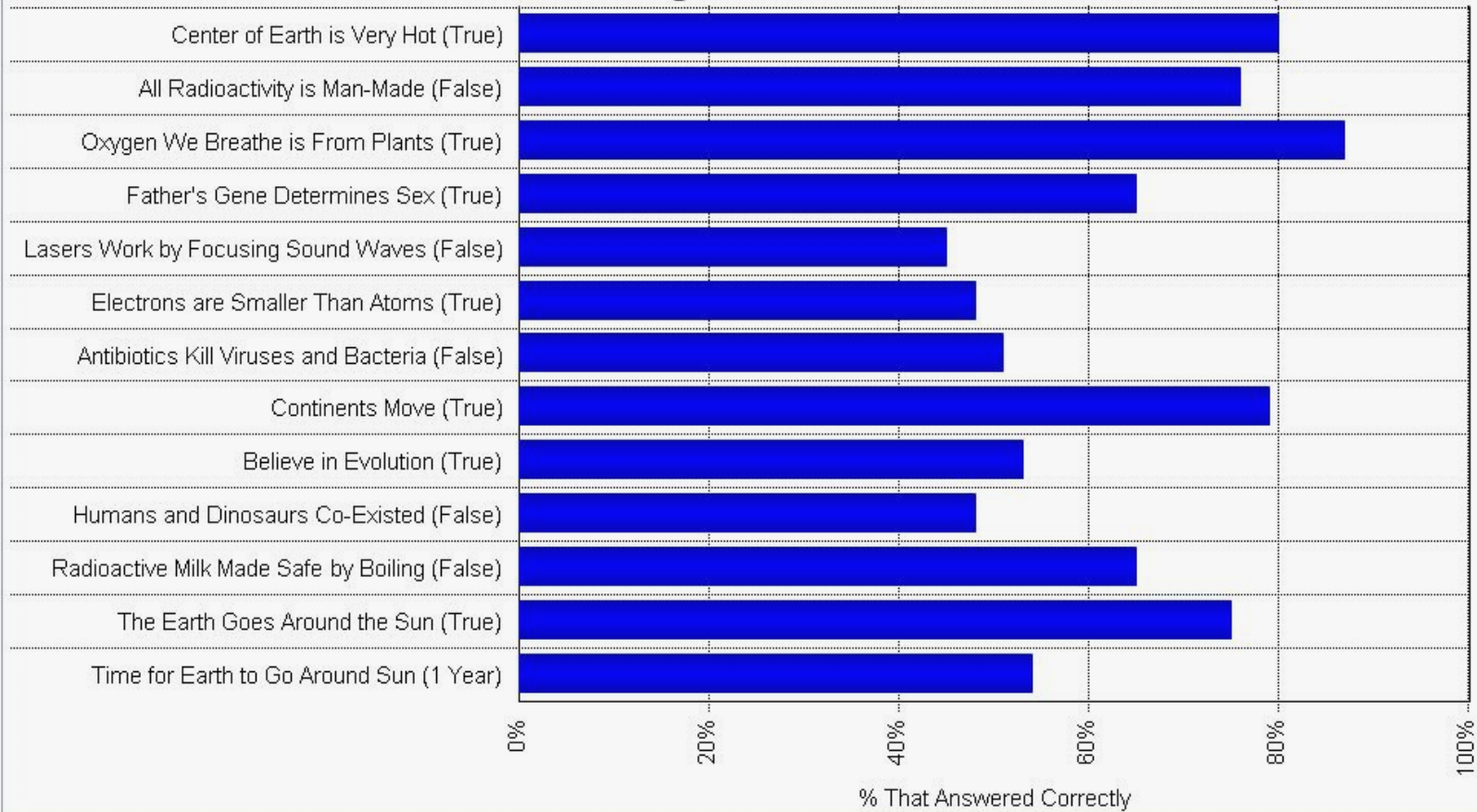
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# Science Literacy

## U.S. Public Understanding of Scientific Terms and Concepts



2001 National Science Foundation, Survey of Public Attitudes Toward and Understanding of Sci. and Tech.

www.data360.org

Source: Buhr

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# Climate Literacy

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- ☉ The Sun is the primary source of energy for Earth's climate system.
- ☉ Climate is regulated by complex interactions among components of the Earth system.
- ☉ Life on Earth depends on, is shaped by, and affects climate.
- ☉ Climate varies over space and time through both natural and man-made processes.
- ☉ Our understanding of the climate system is improved through observations, theoretical studies, and modeling.
- ☉ Human activities are impacting the climate system.
- ☉ Climate change is having consequences for the Earth system and human lives.







# Replacing Jargon

## TERMS THAT HAVE DIFFERENT MEANINGS FOR SCIENTISTS AND THE PUBLIC

Scientific term	Public meaning	Better choice
enhance	improve	intensify, increase
aerosol	spray can	tiny atmospheric particle
positive trend	good trend	upward trend
positive feedback	good response, praise	vicious cycle, self-reinforcing cycle
theory	hunch, speculation	scientific understanding
uncertainty	ignorance	range
error	mistake, wrong, incorrect	difference from exact true number
bias	distortion, political motive	offset from an observation
sign	indication, astrological sign	plus or minus sign
values	ethics, monetary value	numbers, quantity
manipulation	illicit tampering	scientific data processing
scheme	devious plot	systematic plan
anomaly	abnormal occurrence	change from long-term average

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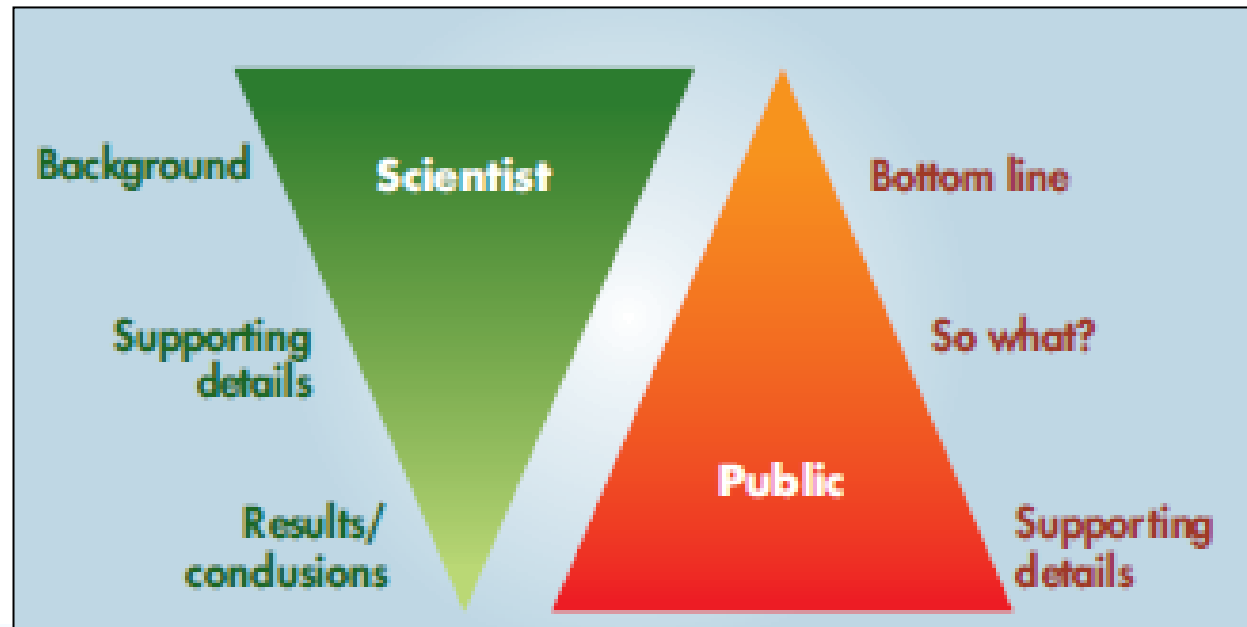
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# Strategy: Invert the Pyramid

- Think like a news reporter, not a journal article author or conference presenter!
- First: Takeaway messages
- Second: Why the audience should care
- Third: Details



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# Strategy: Repeat the Consensus

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- Repeating myths and untruths can actually reinforce them
- Instead, repeat messages about what we do know:
  - Climate is changing, humans are the main cause.
  - El Niño may be developing, and we won't be able to sense its potential strength or impacts for several more months.
  - The 3-month temperature outlook tells us if the odds are tilting toward warmer or cooler conditions.

# Respond Respectfully to Disagreement

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- Use dialogue. Ask questions. Listen to answers to understand root causes, defuse emotions.
- Be patient. Misinformation comes from trusted sources.
- Find common ground.
- Provide credible resources.
- Repeat what we know.
- Acknowledge gaps in understanding.

# Strategy: Create a Narrative



“Just the facts” not enough!



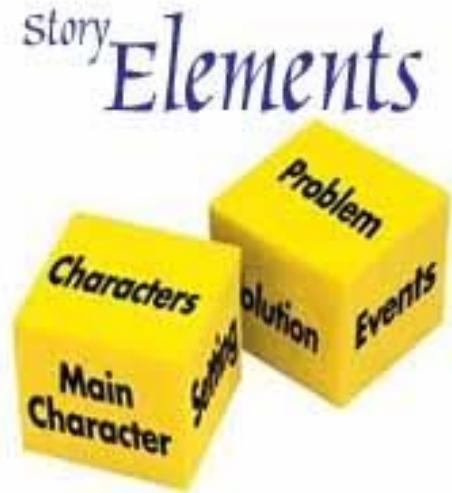
Create a narrative that provides all the story elements:

- Protagonist and antagonist
- Setting in place and time
- Introduction, conflict, and resolution



Story is most effective if:

- Story is *congruent* to listeners' life experiences
- Story *transports* its listeners
- Listeners *trust* the *storyteller*
- Listeners relate to the *hero* (protagonist)



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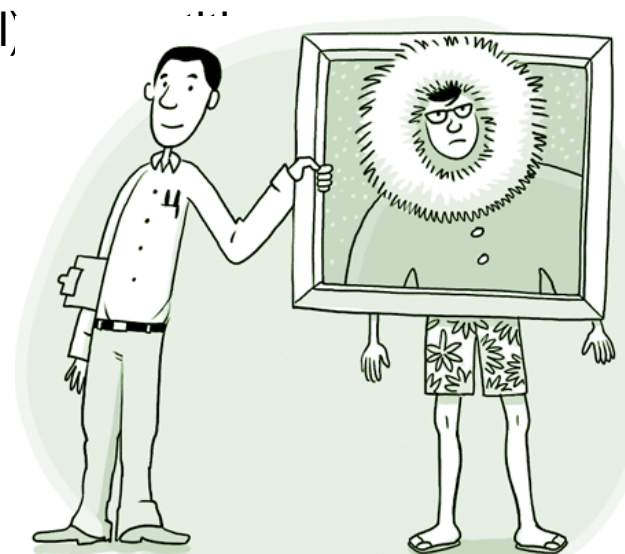
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# Strategy: Frame the Subject

- Link new information to already-known information.
- Know your audience!
  - Anticipate audience interests, concerns, values.
  - Shape communication to audience.
- Possible frames for climate change:
  - Children's futures
  - Global (national, state, local)
  - Economic development
  - Ingenuity
  - Health
  - Morality and ethics
  - Personal accountability
  - Social progress
  - Stewardship



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# Strategy: Talk about Solutions

- Pairing science with solutions wards off denial, engenders hope
- Hammering the “bad stuff” without presenting positive alternatives causes numbing (“Why should I even bother to try?”).
  - P.S., this is also true of weather issues. such as the “You will die if you are above ground in this tornado” message and its backlash.
- Avoid “single action bias” (“I replaced my light bulbs, so I’ve done my part.”) by encouraging multiple actions (replace your light bulbs and recycle and buy local...), tiered actions (i.e. “have a minute, have a month” levels of activity).



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# Practice Scenarios

 What would your message be if talking to...?

 Farmers and ranchers

 Pest control professionals

 Emergency managers

 Coastal county commissioners

 Ski resort operators

 Church congregation

 Your family

 Your office

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# Summary and Take-Home Tips

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- 🇺🇸 This is just a start!
- 🇺🇸 Practice communication strategies to make them more comfortable.
- 🇺🇸 Understand your audiences and adapt message to their concerns, values, needs.
- 🇺🇸 Fewer slides, more pictures and stories.
- 🇺🇸 You (the speaker, the narrator, the storyteller) matter!