Essential Tips and Tools for Communicating Your Science

BEST PRACTICES:	WHAT NOT TO DO:	WHAT TO DO:
Avoid jargon or words that have different meanings for the public than for scientists.	• "driver…" • "computer models…" • "…this creates a positive feedback effect."	• "powerful influence…" • "computer simulations…" • "…this creates a vicious circle."
Keep things simple and relevant to the audience at hand.	"Due to the after-effects of ice sheets levering up areas of the east coast 20,000 years ago, portions of the east coast are experiencing land subsidence that will exacerbate other sea- level rise."	"Parts of the east coast are especially vulnerable to flooding because of a combination of global sea-level rise and local land sinking."
Avoid lecturing.	"Today I will discuss my research on tornadoes and how this affects…"	"I want to start by asking you how tornadoes have affected you and this community."
Don't use vague generalizations.	"Global warming is projected to have many negative effects on the whole world—and this region."	"Global warming is projected to change the whole character of our state. For example: • In 50 years our summers are likely to feel more like summer in [the deep South]. • The solid freeze that we expect on Lake Superior is no longer predictable… • The last frost of the season will be three weeks earlier, meaning X pests will thrive…"
Give examples that mean something to people's own lives.	"Drought in our area means that soil moisture levels will be altered by [X amount]."	"Drought in our area is projected to intensify, putting more pressure on our already stressed water resources, and increasing the threats of wildfires; last year alone, wildfires destroyed X homes and cost Y dollars…"
When using numbers or measurements, use social math to provide scale.	• "There are 50,000 gallons of diesel fuel at the abandoned base camp." • Sea-level rise of X inches. • X money saved [or lost].	• "There is enough diesel fuel at the base camp for a car to circle the globe 80 times." • That's a loss of [X area of beachfront.] • This amount could send a child to college.
Emphasize the value of science.	"I study coronal mass ejections and other space weather."	"The research that I (and others) do on conditions on the sun helps predict and prepare for major power-grid outages and disconnects with our weather and GPS satellites."
Provide context	"I study the Pine Island Glacier."	"I study the Pine Island Glacier, the fastest melting glacier in Antarctica, responsible for about a quarter of Antarctica's ice loss thus far."
End on a positive note, with how science can be part of a solution.	"This is a serious issue, and we have to act now to avert catastrophe."	"[My scientific discipline] give us an opportunity to overcome these challenges and develop innovative solutions that can improve our quality of life [e.g. better water or land use, building designs, health and safety measures, emergency planning, etc.]."

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Tips and Tools!

SHARING SCIENCE
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What question could you ask a non-scientific audience to start a dialogue about your science and its impact?

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Can you give a specific, compelling number or example to illustrate your science's impact or the effect of what you research on society/people?

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Are there numbers/values related to your examples that you can make more vivid with social math?

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What are three benefits of your area of science to your community or society at large?

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Do you have a request to make of your audience—something you hope they'll do or think about?

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How can you present that request as a positive opportunity for them as well as you?

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