

# Essential Tips and Tools for Communicating Your Science

| BEST PRACTICES:   | WHAT NOT TO DO:   | WHAT TO DO:  |
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| <b>Avoid jargon or words that have different meanings for the public than for scientists.</b> | <ul style="list-style-type: none"> <li>• “driver...”</li> <li>• “computer models...”</li> <li>• “...this creates a positive feedback effect.”</li> </ul>  | <ul style="list-style-type: none"> <li>• “powerful influence...”</li> <li>• “computer simulations...”</li> <li>• “...this creates a vicious circle.”</li> </ul>  |
| <b>Keep things simple and relevant to the audience at hand.</b>                               | “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.”  |
| <b>Avoid lecturing.</b>   | “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.”  |
| <b>Don’t use vague generalizations.</b>   | “Global warming is projected to have many negative effects on the whole world—and this region.”   | <p>“Global warming is projected to change the whole character of our state. For example:</p> <ul style="list-style-type: none"> <li>• In 50 years our summers are likely to feel more like summer in [the deep South].</li> <li>• The solid freeze that we expect on Lake Superior is no longer predictable...</li> <li>• The last frost of the season will be three weeks earlier, meaning X pests will thrive...”</li> </ul> |
| <b>Give examples that mean something to people’s own lives.</b>                               | “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...”  |
| <b>When using numbers or measurements, use social math to provide scale.</b>                  | <ul style="list-style-type: none"> <li>• “There are 50,000 gallons of diesel fuel at the abandoned base camp.”</li> <li>• Sea-level rise of X inches.</li> <li>• X money saved [or lost].</li> </ul>  | <ul style="list-style-type: none"> <li>• “There is enough diesel fuel at the base camp for a car to circle the globe 80 times.”</li> <li>• That’s a loss of [X area of beachfront.]</li> <li>• This amount could send a child to college.</li> </ul>   |
| <b>Emphasize the value of science.</b>  | “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.”   |
| <b>Provide context.</b>   | “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.”   |
| <b>End on a positive note, with how science can be part of a solution.</b>                    | “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.]”   |

# Tips and Tools!

**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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