# Using MOOCs to Debunk Climate Misinformation in a Global Classroom

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MOOCs (Massive Open Online Courses) are a powerful way to educate a large, diverse audience. The MOOC "Making Sense of Climate Science Denial" applies misconception-based learning and psychological principles in videos debunking the most common myths about climate change. As well as teaching fundamental climate science, the course explains the psychology of climate science denial and the most effective techniques for responding to misinformation. This interdisciplinary online course has had over 35,000 enrolments from over 180 countries. A number of enrolled students were secondary and tertiary educators, who adopted the course content in their own classes.

## Structure of an Effective Debunking

All debunking lectures (see right for examples)

### **FACT**

Replace the myth with a factual alternative. Ideally, your fact needs to be more compelling and

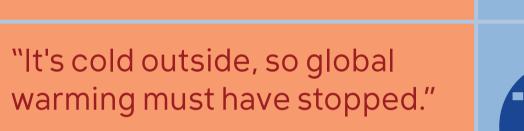




**MYTH** 

MYTH

ng global warming."



**FALLACIES** 

**FALLACIES** 

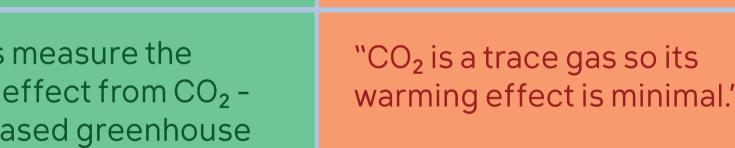
body of evidence for

## warming doesn't mean no more cold weather, just fewer cold days

only natural CO<sub>2</sub> emissions and ig-

### **FALLACIES** MYTH

## 'Human CO<sub>2</sub> emissions are



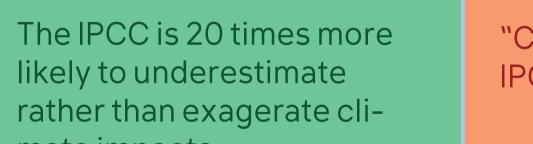


natter that CO<sub>2</sub> is 'just' a trace

**FALLACIES** 

### MYTH **FACT**

## past implies current climat change is also natural."







Cherry picking: selectively looks it a few examples where the IPCC verestimated climate change, ignoring the much larger number of examples of underestimation.

Cherry picking: this focuses on a

ew good impacts of global warm-

ing and ignoring the overwhelming number of bad impacts.

**FALLACIES** 

mate change actually sends the

### MYTH **FACT**

## "Global warming is good."

## "CO<sub>2</sub> is plant food."

Oversimplification: CO<sub>2</sub> ertilisation is just one factor affecting plant growth. The full picture shows that negative impacts outweigh benefits.

**FACT** 

**FACT** 

**FACT** 

adopted the fact-myth-fallacy format.

memorable than the myth.





### MYTH/MISCONCEPTION

Warn people before mentioning the myth so they're cognitively on guard.

### **FALLACY**

Expert Interviews

Explain the technique used by the myth to distort the fact using the five characteristics of science denial.

















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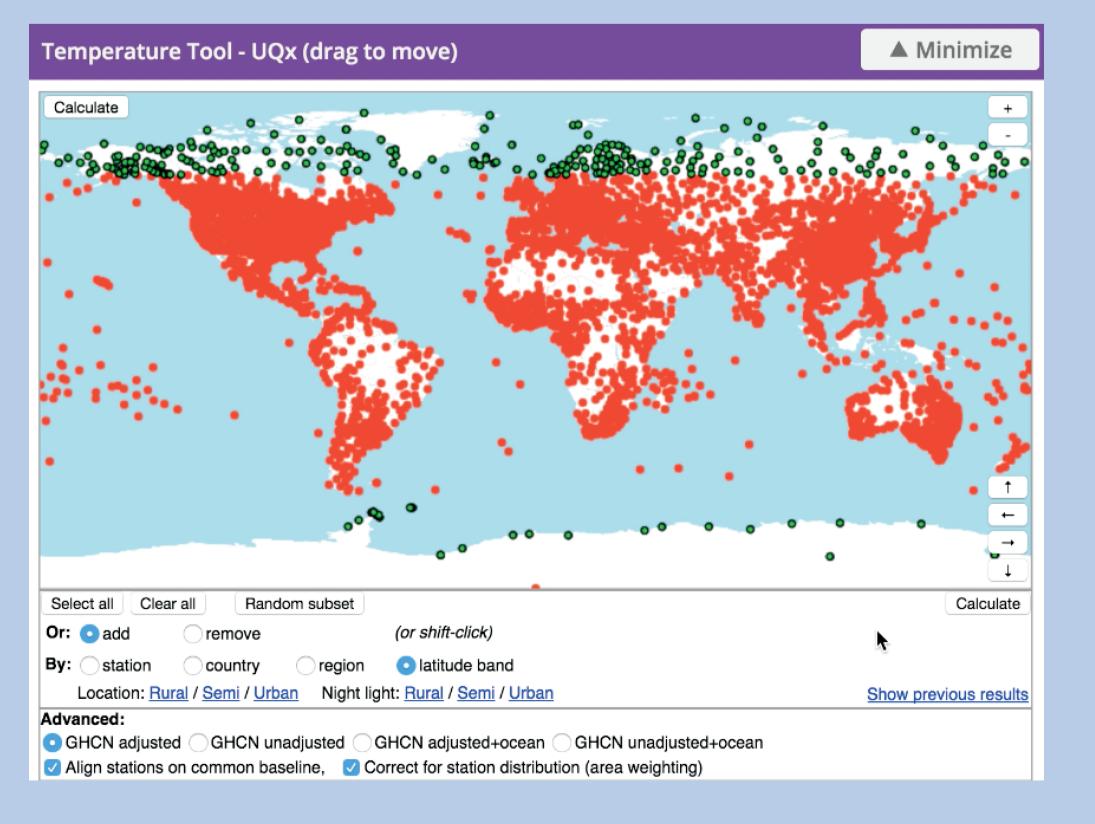
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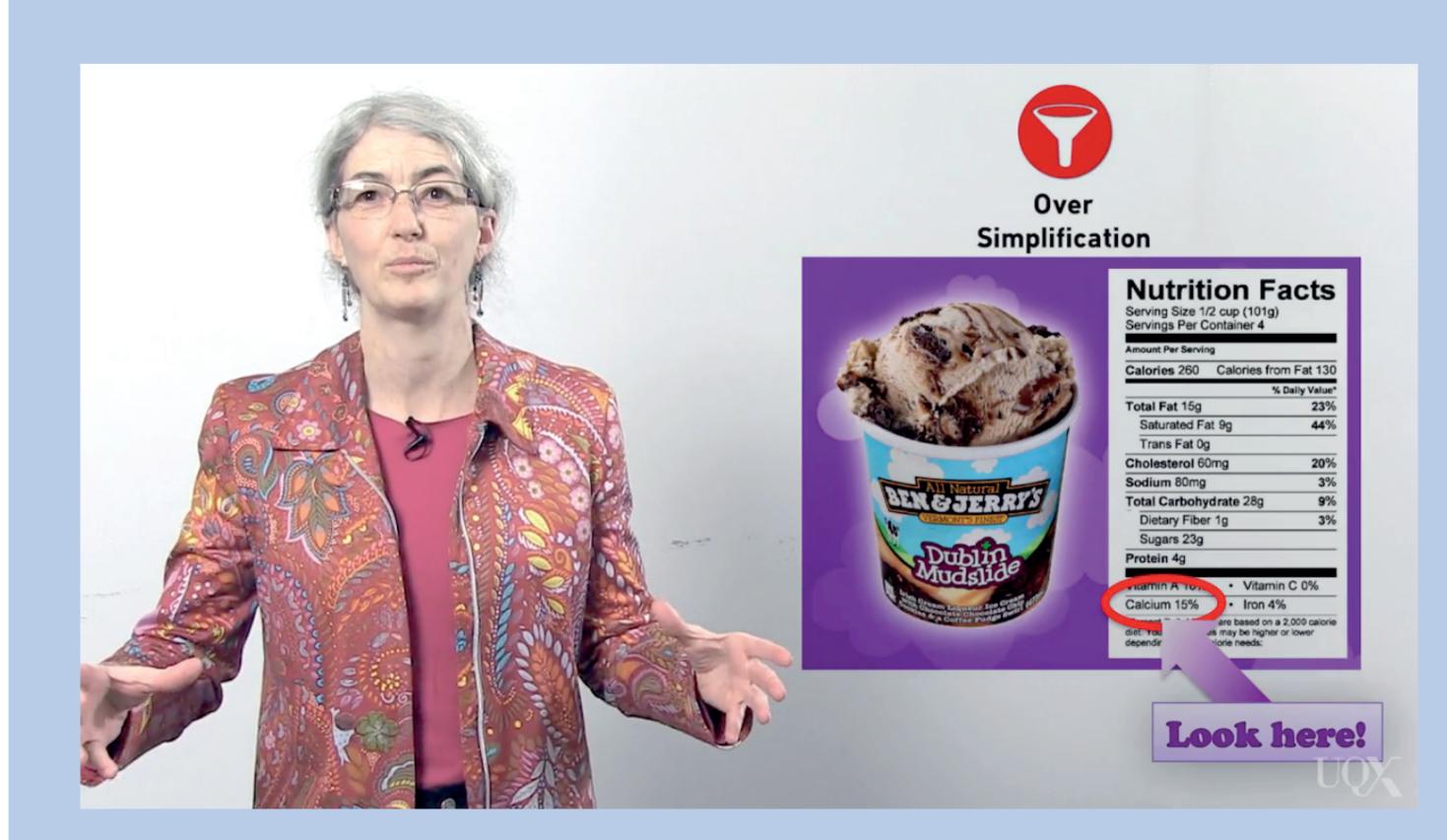
## Interviews with leading scientists & communicators complement video lectures with more in-depth details.



## Interactive Exercises

Online activities allow students to interact directly with climate and psychological data.





Youtube videos (around 7 minutes long) explain

the basics of climate science while debunking

common myths about climate change.

Video Lectures

sks.to/denial101x

## facebook.com/denial101x











