Both Sides of the Issue

More Effects of Climate Change?

A MiniGuide

stosselintheclassroom.org

Contents

Objectives

Students will be able to:

- categorize the specific weather phenomena each video addresses, including heat waves, droughts, wildfires, sea level rise, and coral reef health.
- distinguish between the data each video cites and the conclusions each side draws from that data.
- assess the strength of evidence each side provides for its claims about climate change's role in extreme weather.
- propose a balanced response to climate concerns that draws on points raised in both videos.

Concepts & Key Terms

The following terms appear across both videos in this pairing. Understanding them will help students follow the arguments and engage in discussion.

Adaptation: the process of adjusting to climate impacts through measures such as building dikes, improving infrastructure, or relocating away from vulnerable areas, rather than focusing primarily on preventing further warming.

Attribution Science: a field of research that uses computer models and statistical analysis to estimate how much, if at all, climate change has influenced a specific weather event.

Climate Change: long-term shifts in global or regional temperatures and weather patterns, particularly those linked to rising greenhouse gas levels since the industrial era.

Drought: a prolonged period of below-average precipitation that can damage crops, deplete water supplies, and increase wildfire risk.

Dust Bowl: a period during the 1930s when severe drought, combined with poor farming practices, devastated the U.S. Great Plains and remains one of the worst environmental disasters in American history.

Fossil Fuels: energy sources such as coal, oil, and natural gas formed from ancient organic material; their combustion releases carbon dioxide and other greenhouse gases.

Heat Wave: a prolonged period of unusually high temperatures that can cause illness or death, particularly among older adults and people without access to air conditioning.

Land Management: decisions by governments and private owners about how forests, grasslands, and other lands are used or maintained, including practices such as clear cutting, controlled burns, and development limits.

Mitigation: efforts to reduce greenhouse gas emissions or remove them from the atmosphere in order to limit the extent of future climate change.

Sea Level Rise: the gradual increase in the average height of the world's oceans, attributed to the thermal expansion of seawater and the melting of glaciers and ice sheets.

World Weather Attribution: an international group of scientists who use computer modeling to evaluate whether, and to what extent, climate change influenced specific extreme weather events.

Discussion Questions

The questions below will help students achieve a better understanding of the arguments made on either side of a contentious topic. Because these questions often touch upon statements made briefly in the videos, we recommend reading the questions before watching each video. Students are encouraged to take notes during the videos, and it may be helpful for students to break into groups, each taking responsibility for only a few questions, before coming together for discussion.

Analysis Questions:

1. What are the opposing ideas in these two videos?
2. In the CBS News video, Vladimir Duthiers said that "more than half a million lives have been claimed by extreme global weather events that were intensified by manmade climate change." Was that number higher than you expected? Was it lower than you expected? Why?
3. John Stossel said: "Globally there's been no increase in drought, and in the U.S., the EPA acknowledges the last 50 years have been wetter than average." Were you surprised to learn this? Why or why not?
4. In the CBS News video, David Schechter said: "[T]he planet has already warmed by 1.3°C. That might not sound like a lot to a lot of people …." Does it sound like a lot? Why or why not?
5. John Stossel said that alarmists like to start comparisons of wildfires in the early 1980s. Why is that?
6. David Schechter said: "The nations of the world have pledged to keep warming to 1.5°, but currently the world is on track for up to 3.1° by the end of the century." Are projections like that reliable? Why or why not?
7. In the Stossel video, what did Linnea Lueken say was the "real driver" of wildfires?
8. David Schechter described the process researchers used to study the impact that climate change may have had on weather events. What was that process?

9. John Stossel said: "Climate change may cause real problems, but we can adapt to them rather than get hysterical about myths." Do you agree that we can adapt to the problems of climate change? Why or why not?
10. David Schechter said: "Climate change juices the odds of [weather events] being worse." What did he mean by this?
11. Linnea Lueken said that the Great Barrier Reef is thriving, and that that's not surprising. What reason did she give for this?
12. According to David Schechter, did climate change create the catastrophic weather events mentioned in the video?
13. John Stossel asked: "If the good news is so obvious, why would [the media] keep reporting bad news?" How would you answer this question?
14. Did these two videos share any common ground? Were there any points on which they agreed? If so, what were they?
15. Should one of the arguments we heard carry more weight than the other? If so, which one? Why?
16. Did you have an opinion on this topic before watching these videos? If so, what was it? Has your opinion changed? If so, how? What did you learn from these videos that affects your views on this topic?
17. What else would you like to learn about this topic?
18. For more on this topic, see the first entry in this two-part series: "The Effects of Climate Change."

Activities

The activities below are designed to push students to engage seriously with both perspectives presented in this pairing. Each activity uses a different format so the guide can be reused across class periods or revisited later in the year.

Activity 1: Fact vs. Opinion Sort

Both videos contain a mix of factual claims (numbers, dates, agency findings) and interpretive opinions about what those facts mean. Distribute the worksheet on the following pages. Students work in pairs to classify each statement as a Verifiable Claim (something that can be checked against data), an Opinion or Interpretation (a value judgment or framing), or Both (a verifiable claim plus an interpretation packaged together). After about fifteen minutes, lead a class discussion: which statements were hardest to classify, and why?

This activity directly addresses the central tension in the pairing — both speakers cite real numbers, but each draws very different conclusions from them.

Name _____ Date _____

Class _____ Period _____ Teacher _____

Fact vs. Opinion Sort: More Effects of Climate Change?

Read each statement below. Mark each one F (verifiable factual claim), O (opinion or interpretation), or B (both — a fact plus an interpretation). Be ready to defend your choices.

___ 1. "More than half a million lives have been claimed by extreme global weather events that were intensified by manmade climate change." (CBS News)

___ 2. "The planet has already warmed by 1.3 degrees Celsius." (CBS News)

___ 3. "Climate change juices the odds of [weather events] being worse." (CBS News)

___ 4. "It would have been hot anyway. There would have been the heat wave in France." (CBS News)

___ 5. "Globally, there's been no increase in drought." (Stossel)

___ 6. "The EPA acknowledges the last 50 years have been wetter than average." (Stossel)

___ 7. "Drought was way worse in the 1930s." (Stossel)

___ 8. "Sea level rise is at about an inch a decade or a foot per century." (Stossel)

___ 9. "2024 actually saw record coverage for the Great Barrier Reef." (Stossel)

___ 10. "Good news doesn't grab headlines. It also doesn't gain research funding and grants." (Stossel)

Reflection: pick the statement you found hardest to classify. Why was it difficult?

_____

_____

_____

_____

_____

Fact vs. Opinion Sort — Answer Key with Sources

More Effects of Climate Change? — Both Sides of the Issue

A note before the key: in this exercise, **F** marks a claim that can be checked against data — not necessarily one that is correct or complete. **O** marks a value judgment or interpretation. **B** marks a verifiable fact packaged together with an interpretation. Several of the "F" statements on both sides are accurate as far as they go, yet are contested in what they are taken to imply. That tension — two speakers citing real data and reaching opposite conclusions — is the point of the exercise, not a flaw in it. The sources below let students and teachers trace each claim to its origin.

1. (CBS) The half-million-deaths claim — Answer: B. The death toll is a documented figure, but "intensified by manmade climate change" is a modeled attribution conclusion rather than a directly observed fact, so the statement packages a verifiable number with an interpretation. The underlying study found that the ten deadliest extreme weather events since 2004 contributed to at least 570,000 deaths, all bearing what the researchers describe as the fingerprints of climate change. Source: World Weather Attribution, *10 Years of Rapidly Disentangling Drivers of Extreme Weather Disasters* (2024) — https://www.worldweatherattribution.org/10-years-of-rapidly-disentangling-drivers-of-extreme-weather-disasters/ (This is the study the CBS News video reports on.) World Weather Attribution

2. (CBS) The planet has warmed 1.3°C — Answer: F. A measured quantity reported by every major temperature record. Worth raising in discussion: the number depends on the baseline. Recent years have averaged around 1.3°C above pre-industrial levels, within a 1.2 to 1.4°C range across datasets, while individual years run higher. Source: National Oceanic and Atmospheric Administration, Climate.gov, *Climate Change: Global Temperature* — https://www.climate.gov/news-features/understanding-climate/climate-change-global-temperature Carbon Brief

3. (CBS) Climate change "juices the odds" of worse weather — Answer: O (B is defensible). "Juices the odds" is an interpretive characterization. The probabilistic idea underneath it — that warming shifts the likelihood and intensity of some extremes — comes from event-attribution science, so a student who marks B and points to that science has a strong case. Source: Intergovernmental Panel on Climate Change, *Sixth Assessment Report (AR6), Working Group I, Chapter 11* — https://www.ipcc.ch/report/ar6/wg1/chapter/chapter-11/

4. (CBS) "It would have been hot anyway…" — Answer: O (B is defensible). A counterfactual ("would have been") is a modeled inference about an event that did not happen, so it cannot be checked directly. Worth noting in discussion: here the CBS side is acknowledging that natural variability, not climate change alone, drives such events. Source: Intergovernmental Panel on Climate Change, *AR6,*

Working Group I, Summary for Policymakers — https://www.ipcc.ch/report/ar6/wg1/chapter/summary-for-policymakers/

5. (Stossel) Globally, no increase in drought — Answer: F. A claim about a global trend that can be checked against data. Worth noting in discussion: it is defensible on the global aggregate but incomplete. The IPCC attributes increases in agricultural and ecological drought to human influence in some regions, with medium confidence, rather than finding a clear global increase. Source: Intergovernmental Panel on Climate Change, *AR6, Working Group I, Summary for Policymakers* — https://www.ipcc.ch/report/ar6/wg1/chapter/summary-for-policymakers/ IPCC

6. (Stossel) EPA acknowledges the last 50 years have been wetter than average — Answer: F. Verifiable and accurate. The EPA's drought indicator states in its own words that the 1930s and 1950s saw the most widespread droughts, while the last 50 years have generally been wetter than average. Source: U.S. Environmental Protection Agency, *Climate Change Indicators: Drought* (EPA's official January 2025 archived snapshot) — https://19january2025snapshot.epa.gov/climate-indicators/climate-change-indicators-drought

7. (Stossel) Drought was way worse in the 1930s — Answer: F (B is defensible for "way worse"). Verifiable and accurate. The EPA reports that the 1930s Dust Bowl era remains the most extreme drought in the U.S. historical record, and federal drought monitoring describes the 1930s Dust Bowl as the most significant meteorological and agricultural drought in the nation's record. Sources: U.S. Environmental Protection Agency, *Climate Change Indicators: Drought* (linked above); and National Integrated Drought Information System, Drought.gov, *Historical Drought* — https://www.drought.gov/what-is-drought/historical-drought epaDrought.gov

8. (Stossel) Sea level rises about an inch a decade, or a foot a century — Answer: F (B is defensible). A measurement. Worth noting in discussion: it is roughly right as a long-run average, but it understates the present rate and treats a rising rate as if it were steady. Sea level rose at about 1.5 mm per year over the twentieth century and has climbed to about 3.9 mm per year over the past decade, and the rate is accelerating. Source: National Aeronautics and Space Administration, *Tracking 30 Years of Sea Level Rise* — https://science.nasa.gov/earth/earth-observatory/tracking-30-years-of-sea-level-rise-150192/ NASA Science

9. (Stossel) 2024 saw record coverage for the Great Barrier Reef — Answer: F (B is defensible). Verifiable and accurate for that report. The Australian Institute of Marine Science recorded the highest coral cover in 38 years of monitoring in the northern and central Great Barrier Reef. Worth noting in discussion: those surveys were taken largely before the 2024 mass bleaching event, and the following year's report measured a region-wide decline in coral cover

after that bleaching. Sources: Australian Institute of Marine Science, *Annual Summary Report of Coral Reef Condition 2023/24* — https://www.aims.gov.au/monitoring-great-barrier-reef/gbr-condition-summary-2023-24 ; and the 2024/25 follow-up — https://www.aims.gov.au/monitoring-great-barrier-reef/gbr-condition-summary-2024-25 AIMSAIMS

10. (Stossel) Good news doesn't grab headlines or win grants — Answer: O. A claim about the motives and incentives of the media and of researchers. It is a value judgment, not something that can be checked against data, so no factual source applies — which is itself the teaching point.

Activity 2: Stakeholder Analysis

Have students list the groups affected by climate policy decisions, such as fossil fuel workers, residents of low-lying coastal areas, taxpayers funding adaptation projects, farmers experiencing changing growing seasons, electric utility customers, scientists who depend on grant funding, and citizens of developing nations. (Those are just SOME examples. Come up with as comprehensive a list as possible.) Working in small groups, students answer two questions for each stakeholder: How does this group fare under the CBS News framing (urgent emissions reduction)? How does it fare under the Stossel framing (adaptation and skepticism toward alarmism)?

Each group then reports on one stakeholder. A whole-class debrief surfaces the trade-offs each policy approach creates.

Activity 3: Cost-Benefit Analysis

Draw a four-quadrant chart on the board: Mitigation Costs, Mitigation Benefits, Adaptation Costs, Adaptation Benefits. Mitigation refers to reducing greenhouse gas emissions (the CBS News emphasis); adaptation refers to adjusting to changes that occur (the Stossel emphasis, such as building dikes and improving land management). Students fill in each quadrant using specific points raised in the videos and any additional ideas they generate.

Sample prompts: What does the CBS News video imply about the cost of inaction? What examples of successful adaptation does the Stossel video offer? Which approach do students think the United States is currently emphasizing, and what evidence would they cite?

Activity 4: Devil’s Advocate Round

Begin with a quick-poll: which video did students find more persuasive? Once students have chosen, assign each student to argue the OPPOSITE side for a five-minute structured discussion with a partner who shares their original view. Each

student must present at least two strong points the other side made and identify the single weakest point in the argument they originally agreed with.

This format forces students to take seriously the evidence and reasoning of the perspective they were initially inclined to dismiss. Close the activity with a written reflection: did arguing the other side change your confidence in your original position? Why or why not?

Activity 5: Real-World Connection

Assign students to find one news article from the past month covering an extreme weather event, a climate policy debate, or a study on climate impacts. Each student writes a one-page analysis answering three questions: How would David Schechter (CBS News) frame this story? How would Linnea Lueken (Stossel video) frame it? What evidence in the article do you find most reliable, and why?

In the next class, students present their articles in small groups and identify common themes — for example, how language choices ("intensified by," "linked to," "contributed to") shape reader perception of the same event.