

FT for schools: Polar Vortex sends Texas into deep freeze

This resource was written by Stephen Schwab, author, and geography consultant.

Go to:

www.ft.com/climate-capital Climate Capital is the new go-to hub for the latest climate change from a business, economic and political perspective.

Specification links

AQA

GCSE 3.1.1.4 Climate Change *Climate change is the result of natural and human factors and has a range of effects.*

Edexcel A

GCSE Topic 2. Weather hazards & Climate Change *Global climate is now changing as a result of human activity.*

OCR

GCSE 2.3 Environmental Threats to our Planet *Climate change has consequences.*

WJEC

GCSE unit 2 5.1.1 Climate Change *What is the evidence for climate change?*

This unit of work has the potential for the two key stages (Key stage 4 and 5) as the language used in the articles is accessible.

The unit could be used in early stages of the A level course, it is suitable as a background evidential example, or it could be used as a taster lesson for students considering A Level geography.

Activity

Answer the following questions using the links provided.

1. Study the graphic in the FT Climate graphic of the week [Polar vortex sends Texas into deep freeze](#). This is an article on the debate over whether the jet stream is becoming weaker and wavier.

The jet stream is a fast-moving current of air about 10km above the earth's surface, when it becomes wavy cold air spills southward, as was the case in the central US during the week beginning 15 February.

Referring to the graphic use your own words to explain why Texas has experienced a 30-year low in temperature, down to -18°C

Note the surface locations carefully. In your answer there needs to be a specific link to climate change.

2. Listen to the NPR podcast www.npr.org/podcasts/961315153/global-weirding-with-katharine-hayhoe?t=1615805942588 and print the polar vortex graphic © FT visual journalist Stephen Bernard. Annotate how a 'weak jet stream' is an example of 'global weirding'. You can search for more graphics at www.ft.com/graphics.

Read the 2 articles describing the consequences of climate change on [safe drinking water](#) and [power utilities](#), and the resulting impact upon Texans. Answer the questions below.

3. In your opinion, summarise how these 3 articles provide further evidence of climate change?
4. US President Biden has declared a major disaster triggering federal funding for the affected areas. Justify US President Biden's decision by describing the severity of the situation.
5. Greg Abbott, the current governor of Texas, asked the utilities companies why equipment was not 'winterised'. What does this mean?
6. How do you think the utility companies would respond to this question?
7. This extreme weather exposed a lack of communication between the governor, Ercot and Texan utility companies. Evaluate the importance of dialogue in the context of mitigating the impacts of climate change.
8. What affect might this weather incident and its repercussions have on strategic winter mitigation planning in other southern US states?
9. Read [this advice](#) from the BBC on how to stay safe in freezing weather. Create a poster for Americans citizens to sum up the advice on *How to stay safe in freezing conditions*.

Further work

- The Polar vortex, graphic of the week www.ft.com/content/dc74a4fc-9b24-4e77-a8dd-c055f5e0c884
- This is 'global weirding' www.npr.org/podcasts/961315153/global-weirding-with-katharine-hayhoe
- 'Black and brown communities are worst hit' with 12 million Texans suffering water disruption www.democracynow.org/2021/2/18/texas_power_shutoffs_robert_bullard
- Millions of Texans left without safe drinking water after severe weather spell www.ft.com/content/3f3f467b-4907-4397-b0f7-a58b7099ecc9
- Texans demand answers after dramatic collapse in power supply www.ft.com/content/ab94a33f-103c-49d4-8c8b-0a077b2aa607
- A major disaster is declared www.bbc.co.uk/news/world-us-canada-56129833
- The city of Austin had a bold new plan www.theguardian.com/us-news/2021/mar/01/a-texas-city-had-a-bold-new-climate-plan-until-a-gas-company-got-involved
- The bills mount in Texas www.ft.com/content/0e746280-e72c-4087-9c0d-df2a7af82b77