Math 1901
Freshman Seminar
Mathematical Climate Models

Math 1901
Freshman Seminar
Mathematical Climate Models

Fall 2024
1:00 - 2:15 Mondays and Wednesdays
Vincent Hall 213

Richard McGehee, Instructor
458 Vincent Hall
mcgehee@umn.edu
www-users.cse.umn.edu/~mcgehee/

course website
https://www-users.cse.umn.edu/~mcgehee/Course/Math1901/

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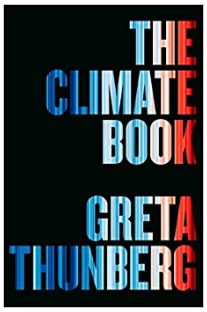
Textbook

Greta Thunberg
The Climate Book
Penguin Press 2023



https://www.penguinrandomhouse.com/books/709837/the-climate-book-by-greta-thunberg/

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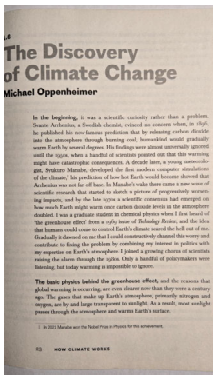

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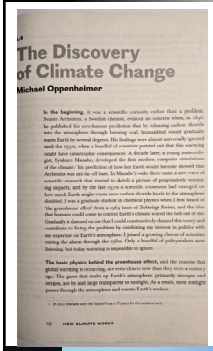
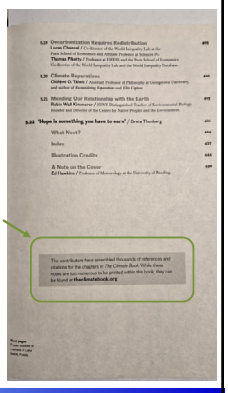


theclimatebook.org



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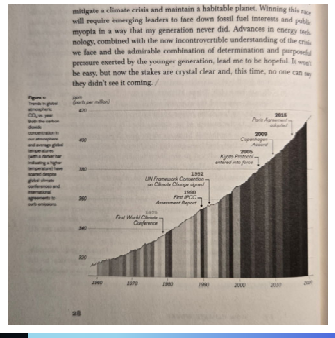

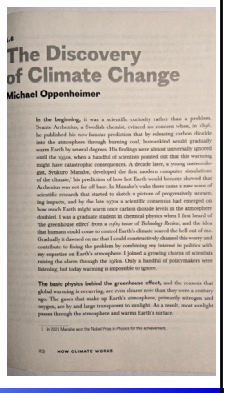

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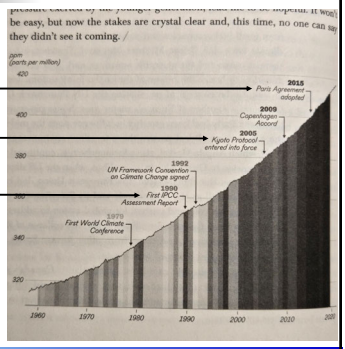
Paris Agreement
Kyoto Protocol
IPCC



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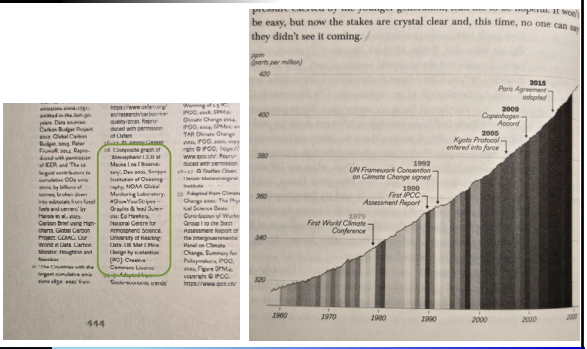

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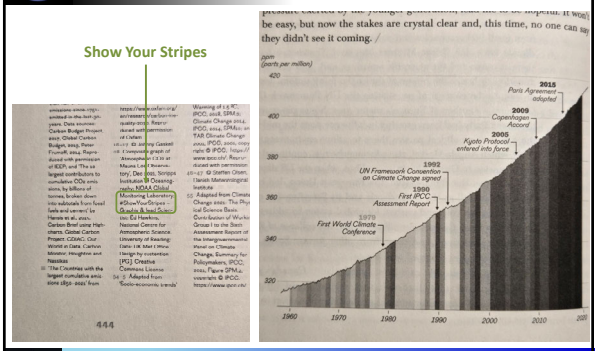
Show Your Stripes



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Search for "Show Your Stripes"

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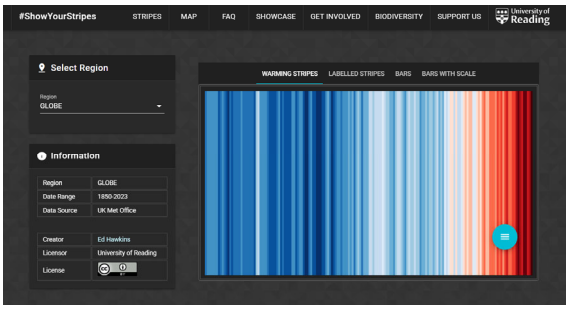

https://showyourstripes.info/

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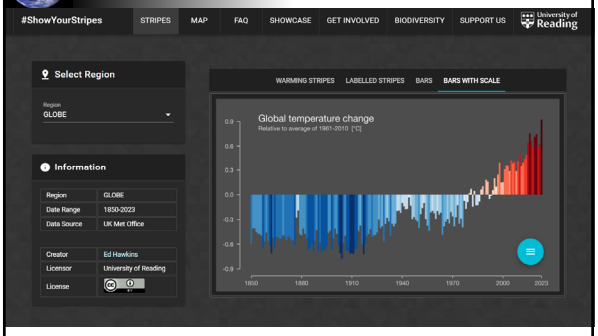

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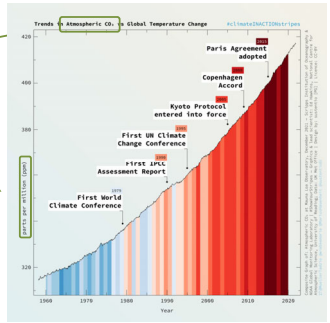
atmospheric CO_2

ppm
(parts per million)

420 ppm:
for every one million molecules of atmosphere, 420 of them are CO2



https://bergensia.com/the-keeling-curve-and-40-years-of-blah-blah-blah/

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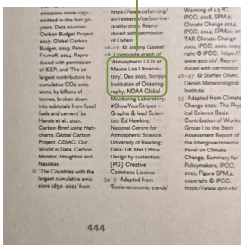
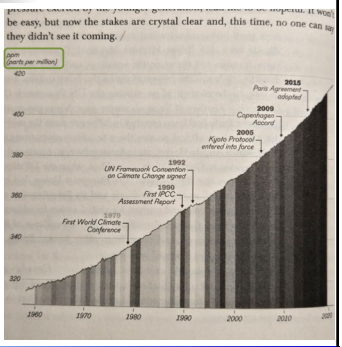
Mauna Loa Observatory
Scripps Institution of Oceanography





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Mauna Loa

Search for "Mauna Loa Observatory"

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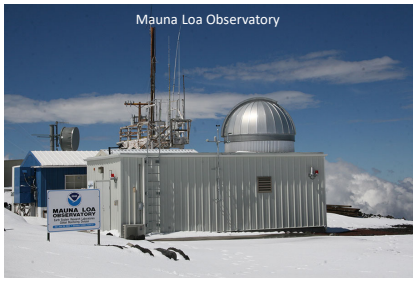
Can we measure greenhouse gasses?



https://research.noaa.gov/Portals/0/EasyDNNnews/1502/2000600p587EDNmain10061mlo_sign_miller.jpg

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Search for "Keeling Curve"

https://keelingcurve.ucsd.edu/

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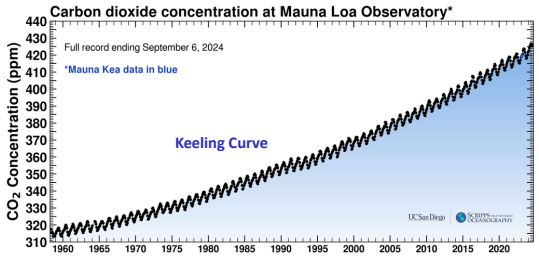

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Mauna Loa

https://www-users.cse.umn.edu/~mcgehee/Course/Math1901/material/MaunaLoa.html

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