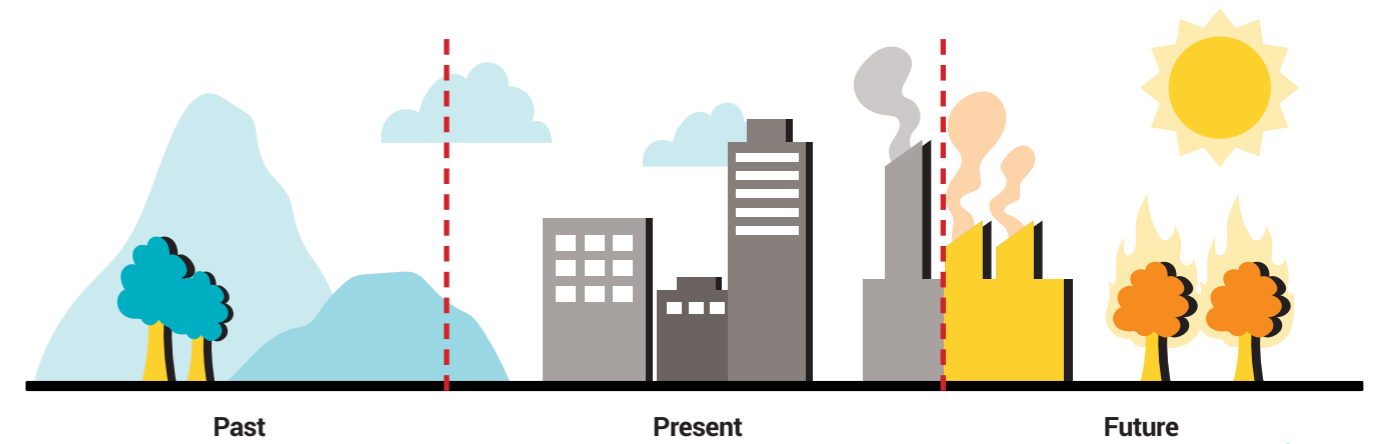




GLOBAL WARMING: IS THE EARTH GETTING TOO HOT?

Our atmosphere protects us from both the cold of outer space and the sun's unfiltered rays, keeping the Earth at a temperature that supports life. However, the planet's average temperature has been steadily rising since the Industrial Revolution in the 18th century. This human-caused change is known as **global warming**.



How Does Global Warming Affect Us?



Rising Sea Levels

Melting polar ice and the expansion of warming seawater cause sea levels to rise.

⚠️ This is an immediate risk to Singapore, a low-lying island surrounded by water.



Public Health

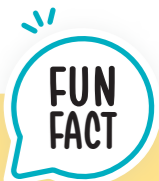
Warmer weather leads to discomfort and heat stress, especially among the elderly and sick. The rise in temperature also increases risks of vector-borne diseases such as dengue.



Food Security

Flooding, droughts, and intense storms create food shortages and supply chain disruptions.

⚠️ Singapore is particularly vulnerable as it relies on global imports for more than 90% of its food supply.



A Silver Lining in the Atmosphere

In the 1980s, climate scientists estimated that it was a matter of a few decades before the Earth's **ozone layer** was completely destroyed. This ozone barrier in the atmospheric barrier shields us from harmful ultraviolet rays that can cause skin cancer and other diseases.



People all around the world rallied together to ban the use of **chlorofluorocarbons (CFCs)**, which were the main chemicals destroying the ozone layer.



Now, the ozone is on the path to recovery, and climate scientists believe that the damage done over the last century has largely been reversed.

Sources:

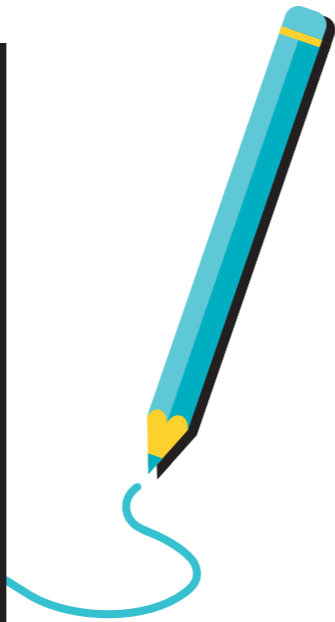
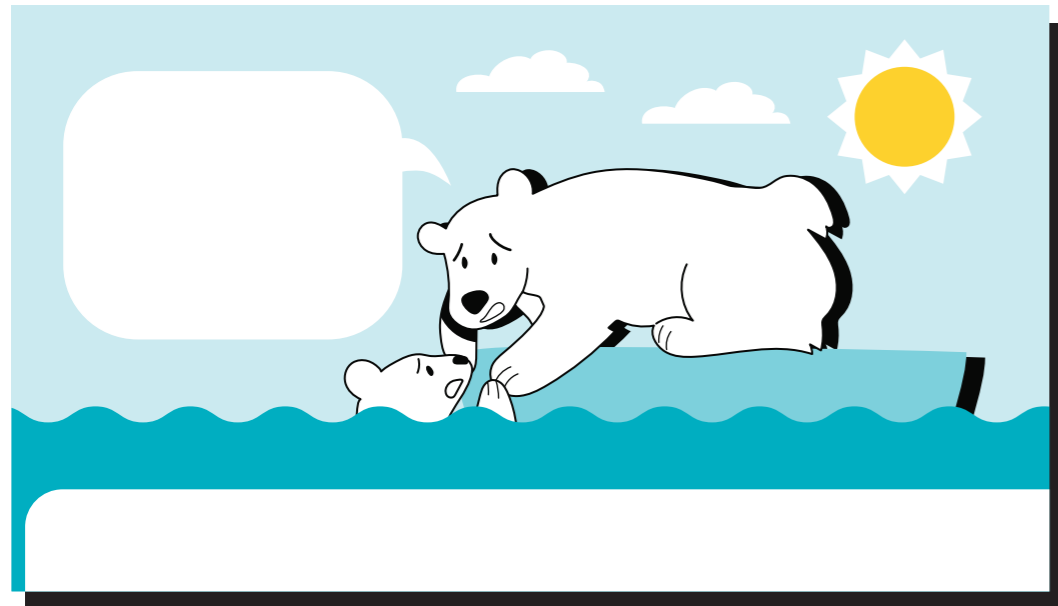
Piper, K. (2021, October 3). *When the World Actually Solved an Environmental Crisis*. Vox. www.vox.com/future-perfect/22686105/future-of-life-ozone-hole-environmental-crisis

Climate Cartoons

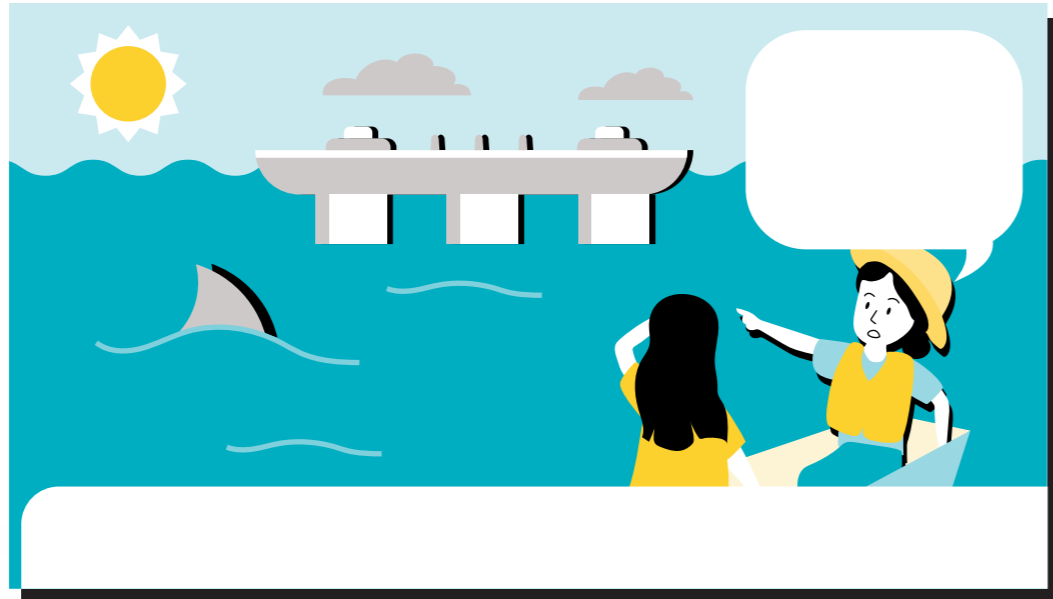


ACTIVITY

Complete the speech bubbles and caption boxes with what you think the characters are saying. Get creative and share what you've filled in with your friends!

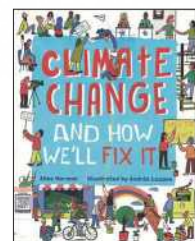


Write caption here! →



→ Write caption here!

Recommended Reads

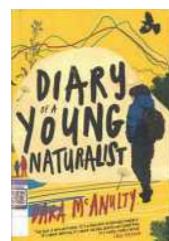


Climate Change and How We'll Fix It

Author
Alice Harman

Call No.
J 363.738 HAR

Publisher
QED Publishing, 2020

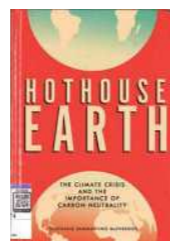


Diary of a Young Naturalist

Author
Dara McNulty

Call No.
Y 508.092 MAC

Publisher
Witness Books, 2021



Hothouse Earth

Author
Stephanie Sammartino
McPherson

Call No.
Y 363.73874 MAC

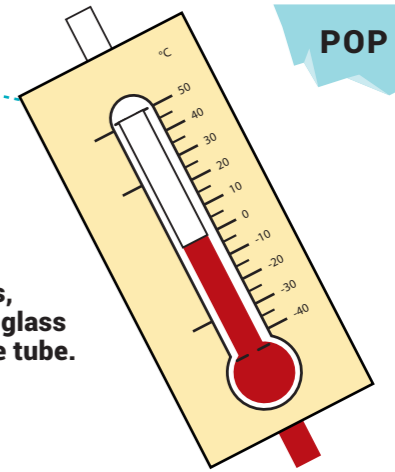
Publisher
Twenty-First Century Books,
2021

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Feeling the Heat

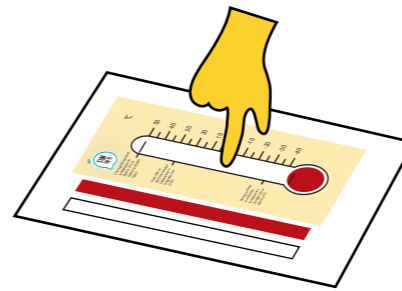
POP OUT!

Air temperature has historically been measured using liquid thermometers, which enclose a small amount of liquid – ethanol, for instance – in a thin glass tube. As the temperature outside rises, the liquid expands and rises up the tube. Try putting a classic liquid thermometer together in this activity!



Instructions:

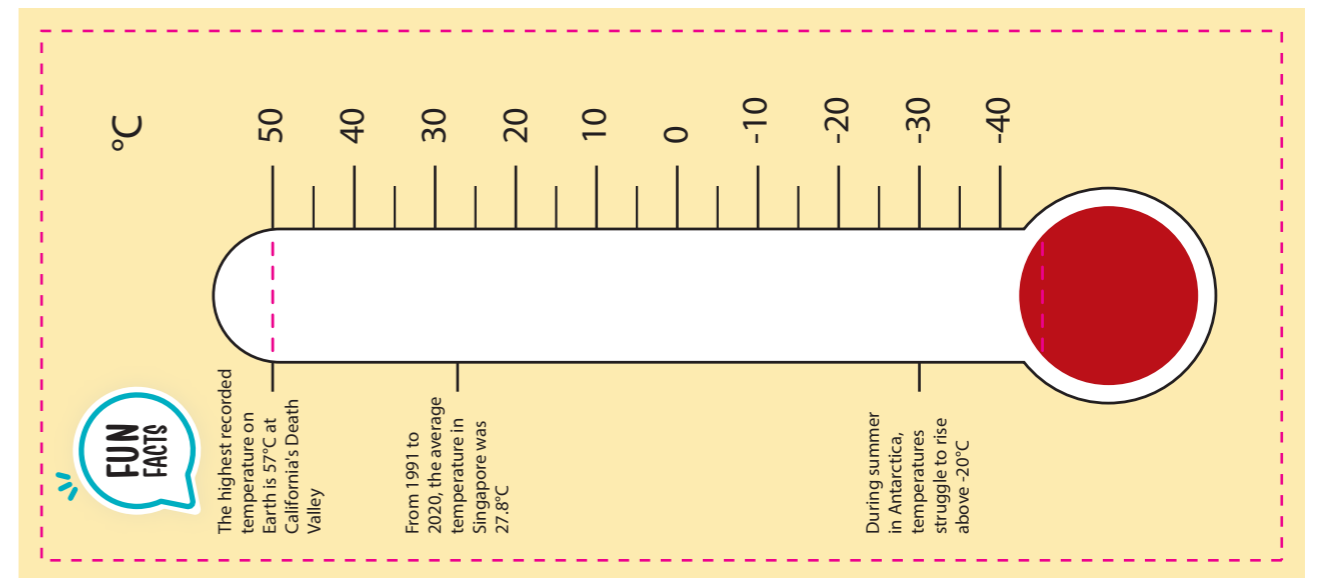
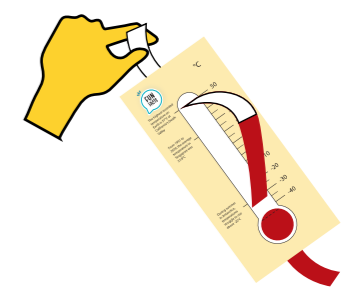
1 Pop out the thermometer and the slider.



2 Place the two slits together.



3 Put the slider through the slits on the top and bottom of the thermometer. Secure them in place.



Sources:

Craftlian. (2022, February 14). DIY Classroom Thermometer | Science Craft for Primary Class [Video]. YouTube. <https://www.youtube.com/watch?v=68tD6CcMiPI>

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Weather. (2021, October 19). National Park Service. <https://www.nps.gov/deva/planyourvisit/weather.htm>