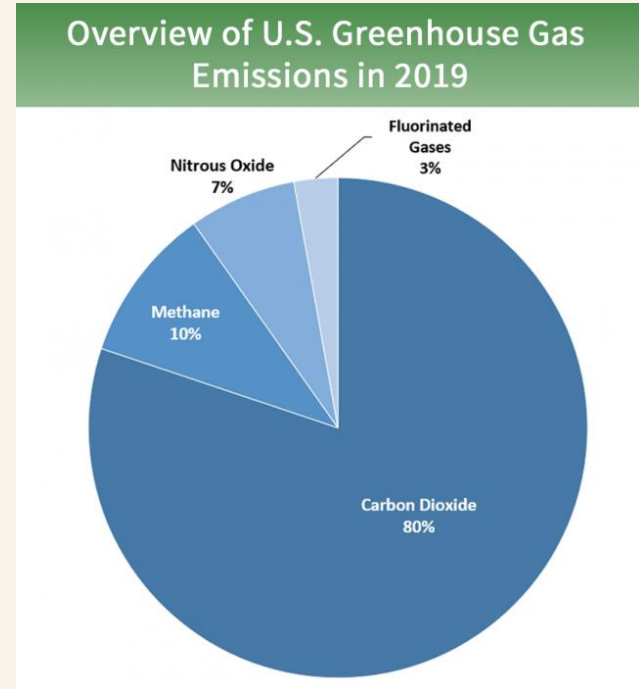
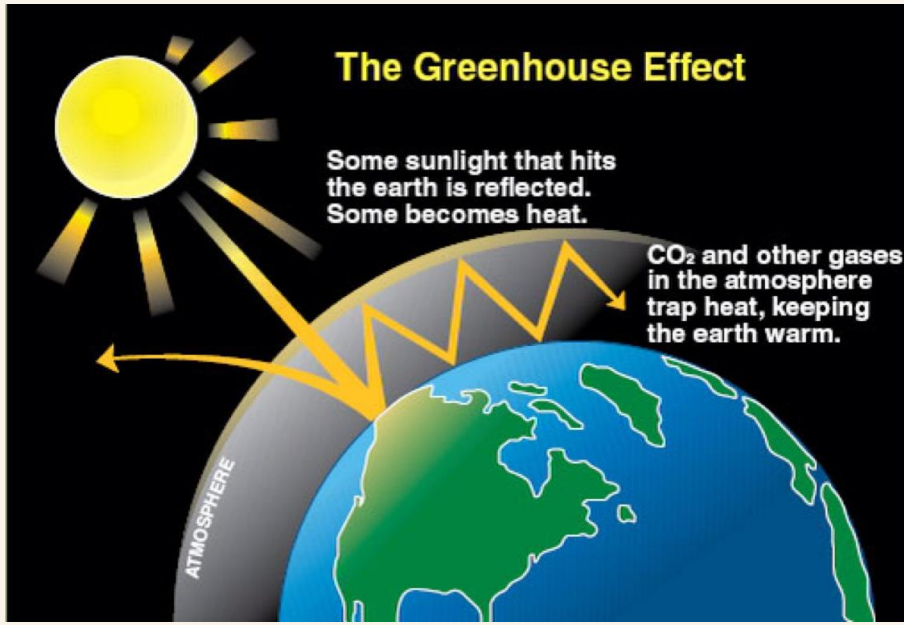
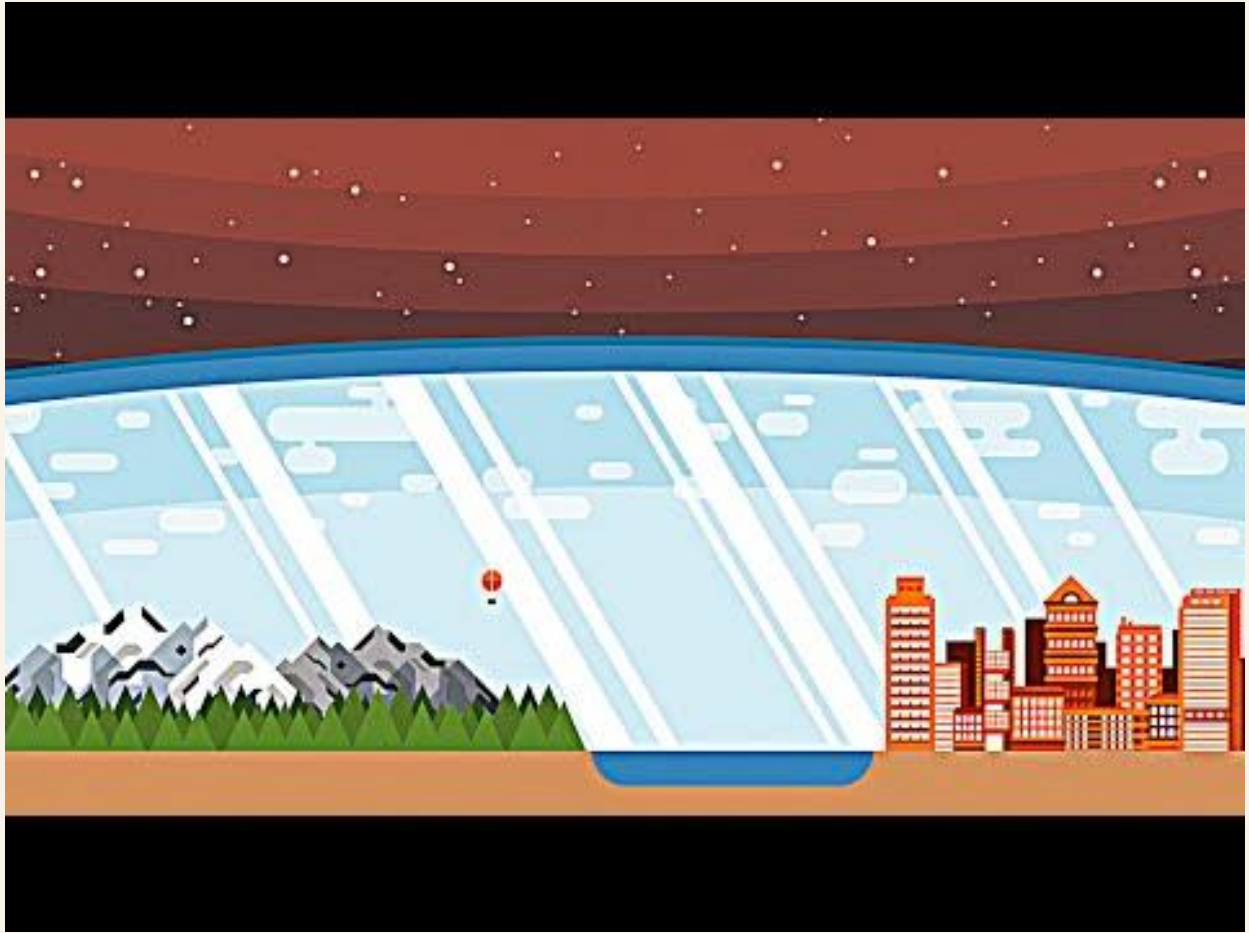
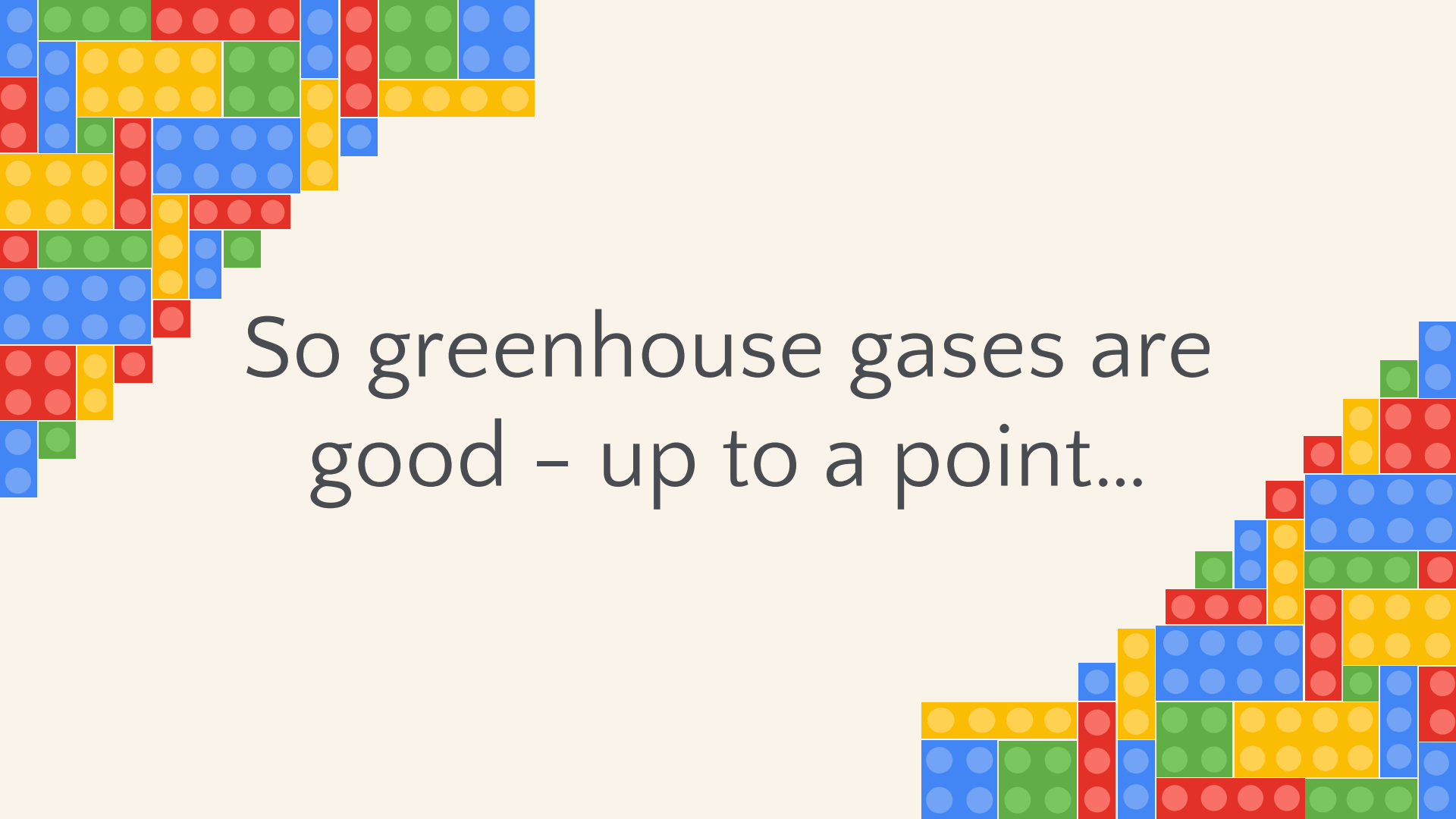


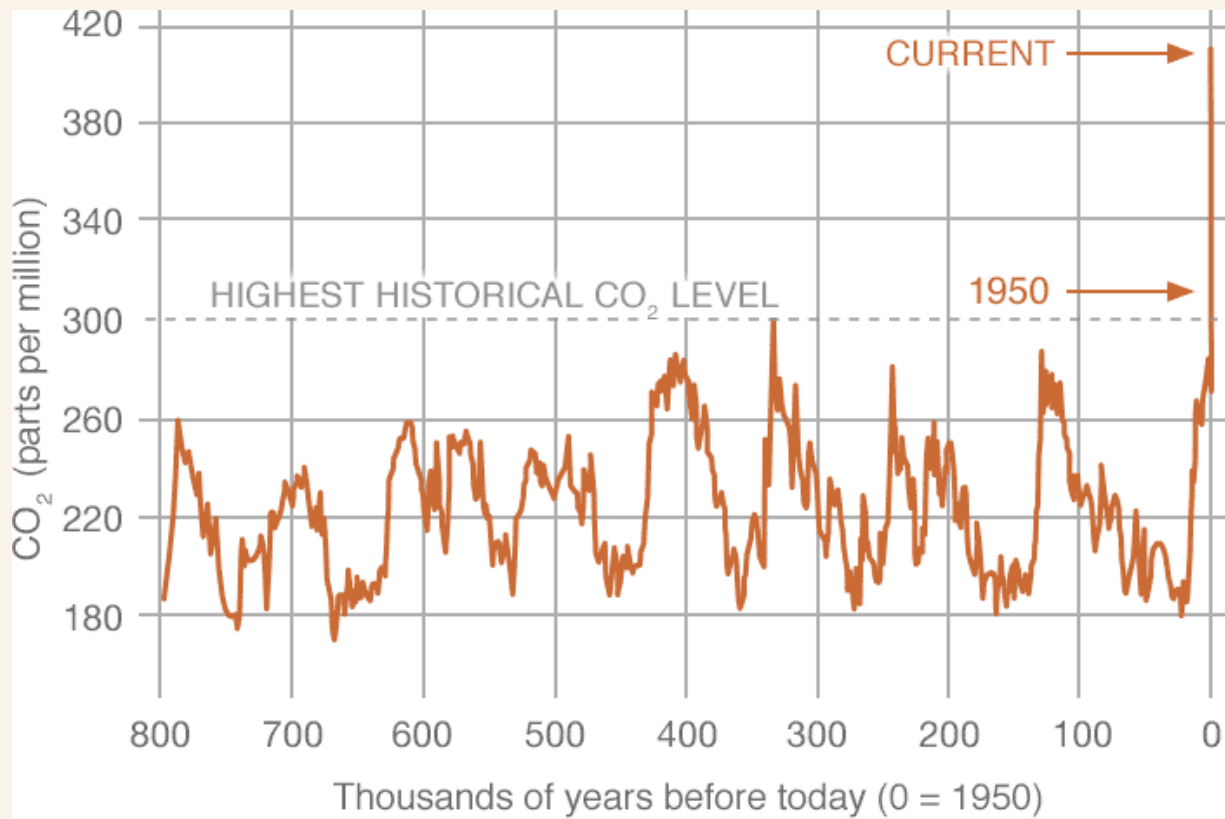
**What are people talking
about when they say
greenhouse effect and
greenhouse gases?**

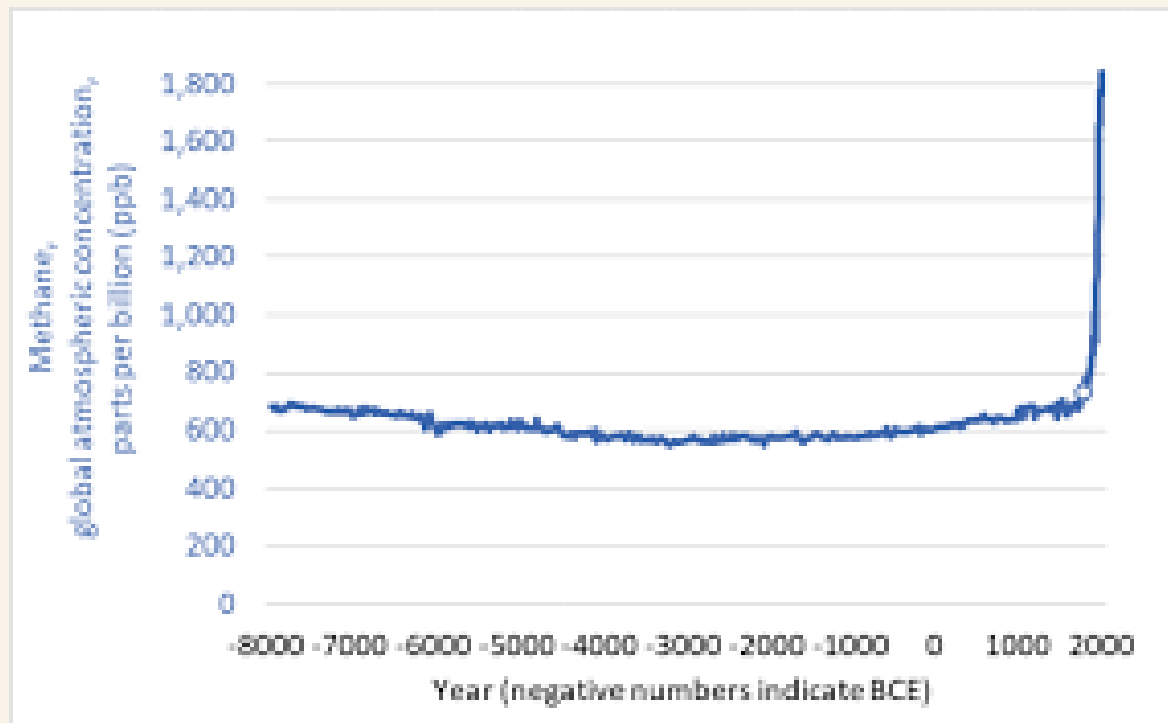


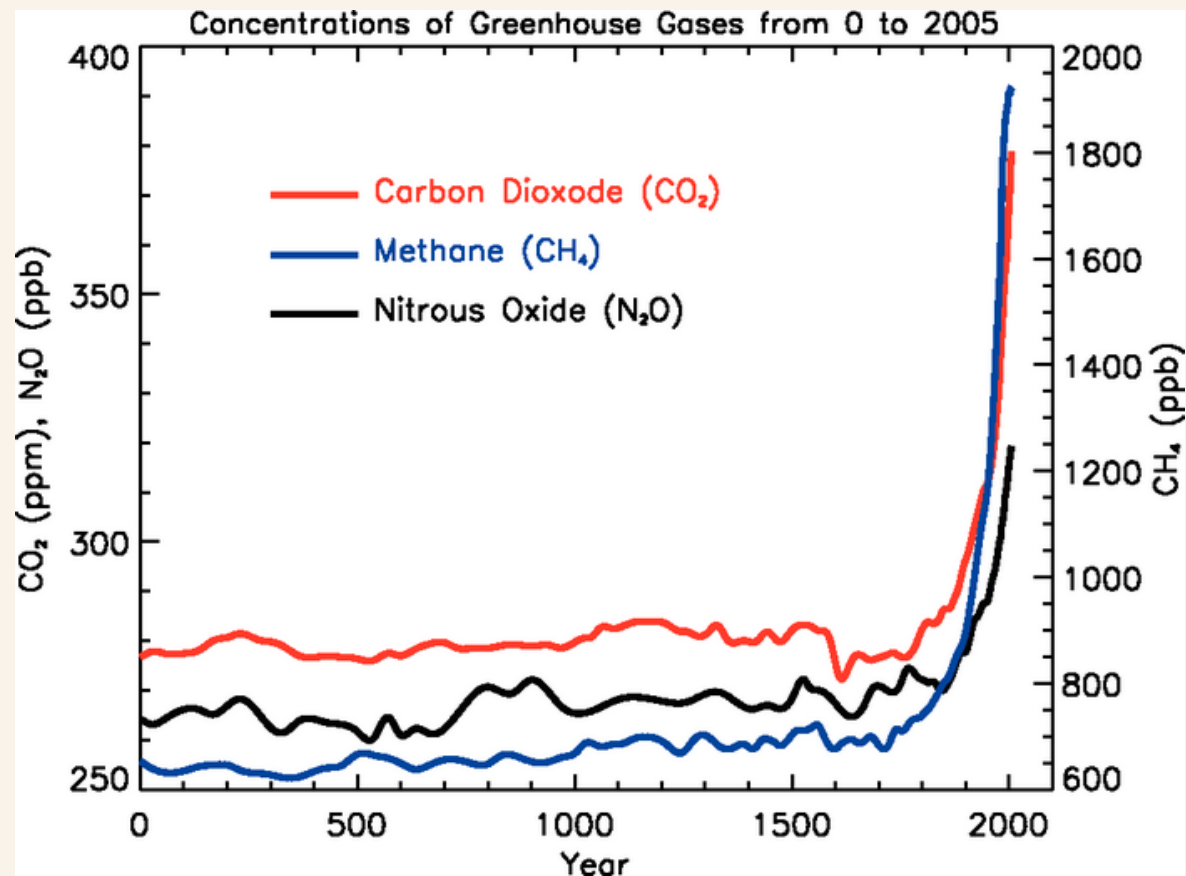




So greenhouse gases are
good - up to a point...







Play with these simulations

1

[PhET Simulation](#)

2

[Concord Simulation](#)

**What did
you
notice?**

Links to Investigate

Visual causes and effects of climate change [here](#)

Good description of greenhouse effect [here](#)

Climate change vs global warming info [here](#)

Effect on Phoenix, AZ [here](#)

The UN reports on climate change [here](#)

Links

- Visual causes and effects of climate change: <https://climate.nasa.gov/>
- Good description of greenhouse effect: <https://www.environment.gov.au/climate-change/climate-science-data/climate-science/greenhouse-effect>
- Climate change vs global warming info: <https://onetreepanted.org/blogs/stories/global-warming-climate-change>
- Effect on Phoenix, AZ: <https://statesatrisk.org/arizona/all>
- The UN reports on climate change: <https://www.ipcc.ch/>
- Effects of ice melting: <https://www.exploratorium.edu/climate/ice> and an experiment about ice melting: <https://www.exploratorium.edu/snacks/melting-ice-rising-seas>

Some Effects of Climate Change

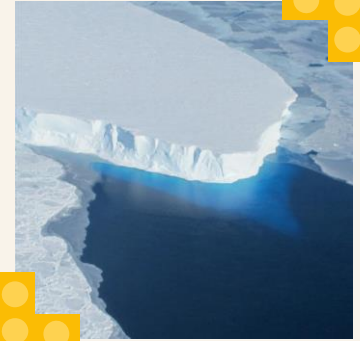
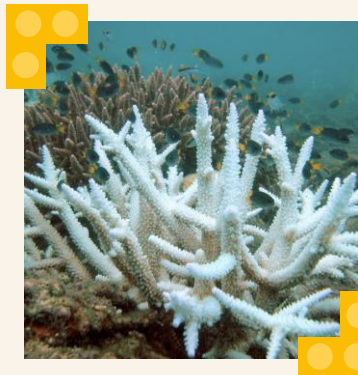


Sea Levels

More land ice melts,
the higher the levels

Higher Temps

More extreme weather
and coral bleaching



Polar Areas

The permafrost
melts leading to
more carbon release



Cascade Effect

A secondary issue caused by a primary issue

An inevitable and sometimes unforeseen chain of events due to an act affecting a system

One thing leads to another

Example: Coral Bleaching (activity [here](#))



**What are your
thoughts?**

EPISODE 41.2

CLIMATE CHANGE



KIDS



14

An illustration of a female scientist with brown hair in a bun, wearing a white lab coat and holding a test tube. She is standing in front of a background of brown, jagged shapes representing icebergs or glaciers. The entire scene is framed by a brown and white checkered border.

WHAT IS CLIMATE CHANGE?

**So what can
be done about
all of this?**

Temperature Anomaly (Fahrenheit)

5.0 7.5 10.0 12.5 15.0 17.5 20.0 22.5 25.0

20

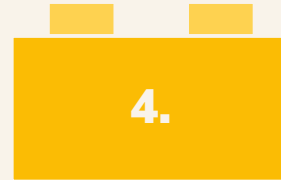
Climate Change Solutions

Renewable
energy sources



Carbon capture

Energy efficiency



Get the world
involved

A decorative border of colorful geometric shapes, including squares and rectangles in red, yellow, blue, and green, arranged in a stepped pattern around the central text.

One solution here

Research About More!

1. Pick one of the five options to research into
2. Go through the suggested links
3. Find your own links to research about
4. Fill out the notes sheet about what you found
5. Complete the part under your chart and then turn it in!



Questions?



Climate Change Solutions

Carbon Capture

Take out the carbon already in the air

Coral Reef Restoration

Protect food sources and habitats

Renewable Energy

Reduce dependence on fossil fuels

Reduce Energy Usage

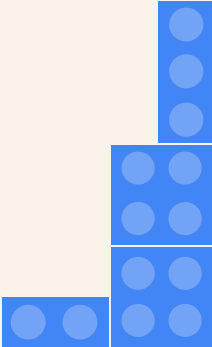
Use less energy, regardless of the type

Marsh and Wetlands

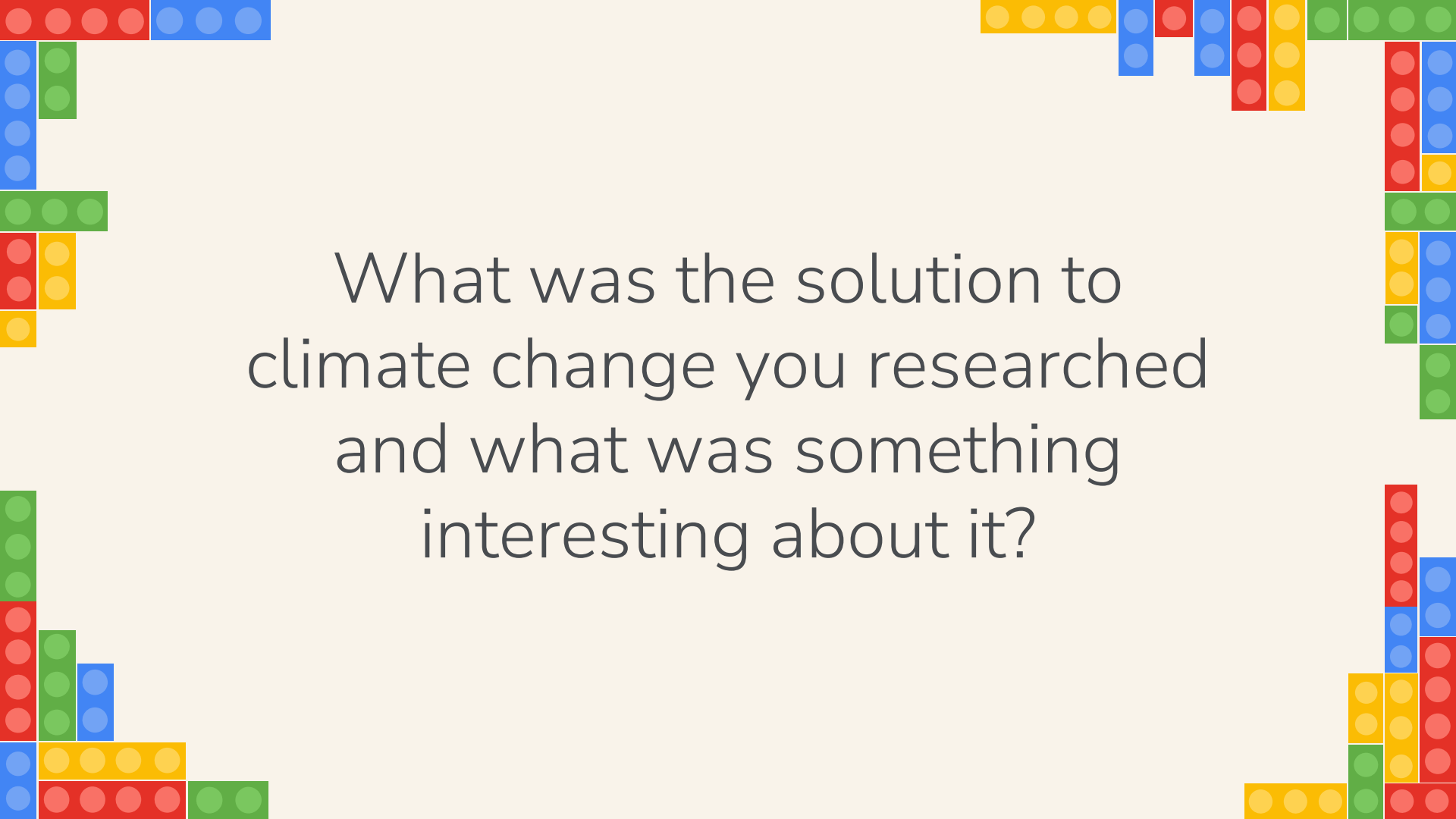
Protection for storms and rising sea levels

Food Solutions

Small changes add up to big impacts



- **Carbon capture technology**
<https://science.howstuffworks.com/environmental/green-science/carbon-capture.htm>
<https://www.c2es.org/content/carbon-capture/>
<https://www.nationalgrid.com/stories/energy-explained/what-is-ccs-how-does-it-work>
- **Renewable energy generator**
<https://www.nrdc.org/stories/renewable-energy-clean-facts>
<https://www.alliantenergykids.com/RenewableEnergy/RenewableEnergyHome>
https://kids.kiddle.co/Renewable_resource
- **Coral Reef restoration**
<https://mote.org/research/program/coral-reef-restoration>
<https://newheavenreefconservation.org/learning-resources/explore-topics/reef-restoration-methods>
<https://www.npr.org/2021/05/27/999837654/fearing-their-kids-will-inherit-dead-coral-reefs-scientists-are-urging-bold-acti>
- **Reducing energy usage**
<https://www.eesi.org/topics/energy-efficiency/description>
<https://www.iea.org/reports/net-zero-by-2050>
<https://www.energystar.gov/about?s=footer>
- **Vertical farming**
<https://www.usda.gov/media/blog/2018/08/14/vertical-farming-future>
<https://boweryfarming.com/vertical-farming/>
<https://kpcnotebook.scholastic.com/post/future-farming>

A decorative border of colorful LEGO bricks surrounds the central text. The bricks are in various colors including red, blue, green, yellow, and orange, and are arranged in a pattern that frames the text on the left and right sides.

What was the solution to
climate change you researched
and what was something
interesting about it?