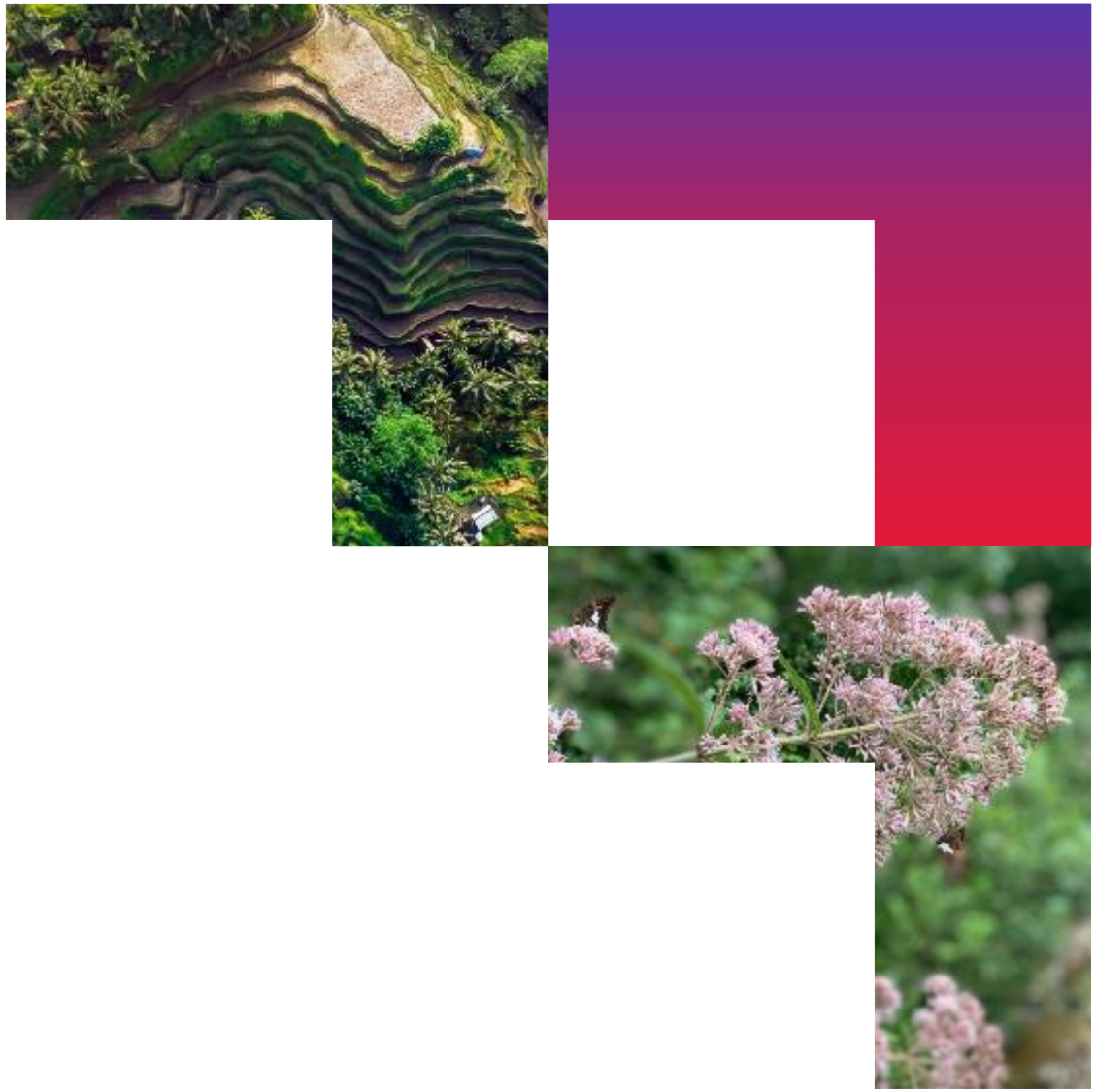
STEM@CGI

SCIENCE - TECHNOLOGY - ENGINEERING - MATHEMATICS



Climate Change Pt 3

Ages 5 to 10

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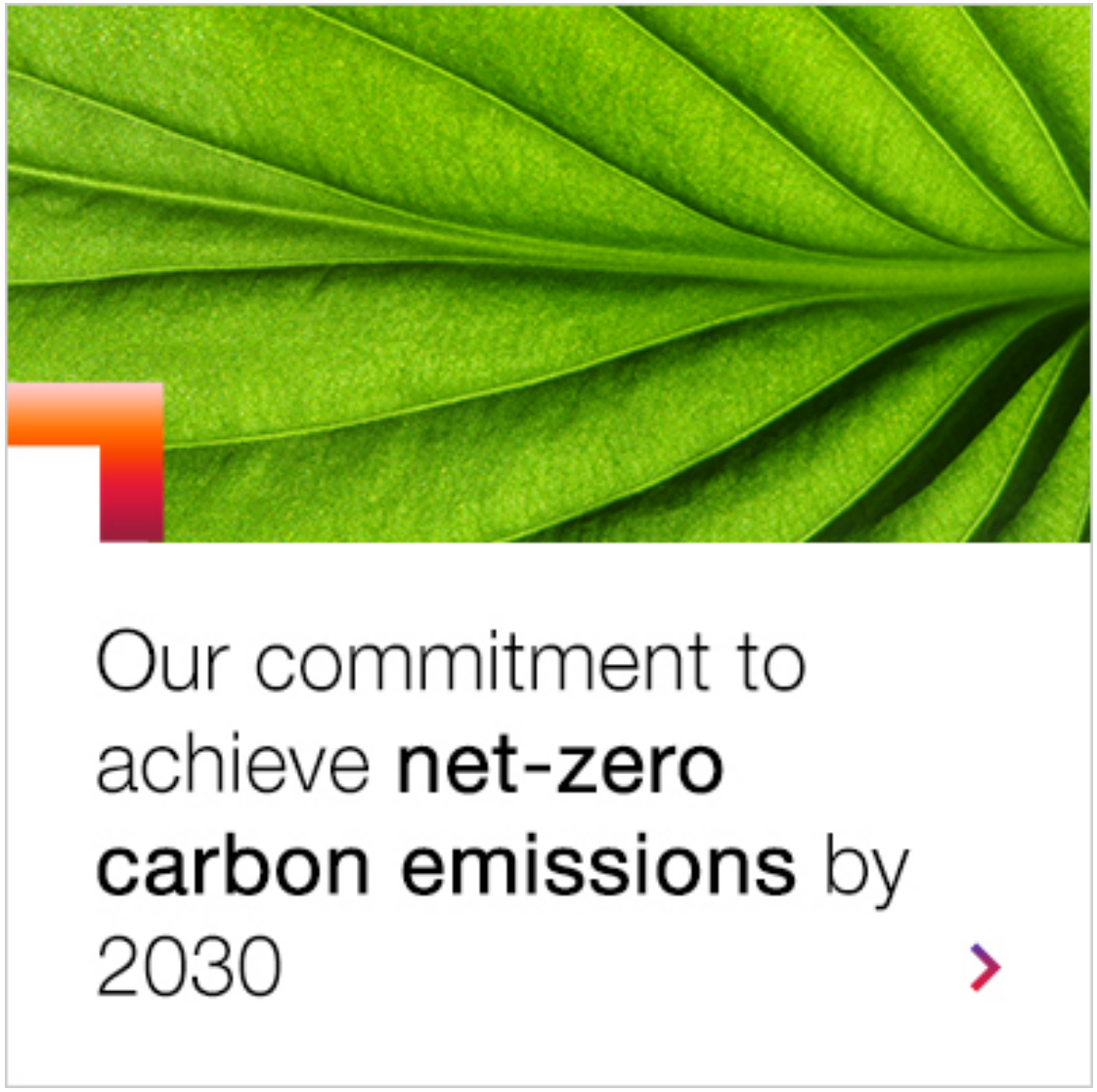
What's happening NOW?

Check out these links on how CGI is working on Climate Change around the world!

[CGI commits to net-zero carbon emissions by 2030 | CGI.com]

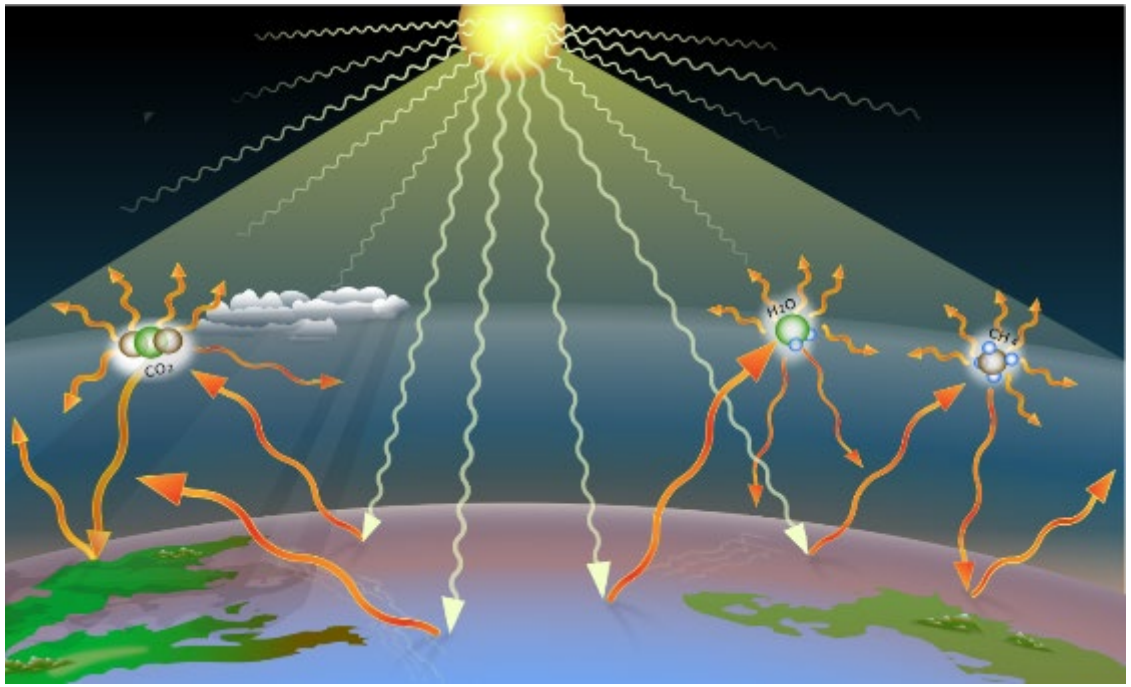
[Four keys for environmental regulatory collaboration | CGI United States]

[Combining technology and community engagement to improve air quality | CGI.com]



Part 3
What does climate change have to do with me?

What does climate change have to do with me?



GAS. What Gas?

Greenhouse gases are naturally trapped by the ***ozone layer*** and heat up the atmosphere to keep the earth from bitter cold. However, too much heat can be dangerous for life to thrive.

These gases contain carbon dioxide (CO_2) and methane (CH_4). Too much of these gases can get trapped around the earth causing the temperature to rise.

How does carbon dioxide expand and increase temperature?

Purpose:

- To observe that carbon dioxide expands and gives off heat.

Materials:

Part 1-

- Bottle of blowing bubbles

Part 2-

- Clear drinking glass
- antacid tablet
- Thermometer

Carbon dioxide is used in certain types of fire extinguishers. "Englisches Institut Fire Safety Training" by heraldpost is licensed under CC BY-NC 2.0.

How does this work?

Procedure:

Part 1- (might want to do this one outdoors)

1. Remove the cap from the bottle of bubbles.
2. Use the wand to collect some soap and blow!
3. Observe that the carbon dioxide released from your mouth expands the soap to make bubbles!

How does this work?

Procedure:

Part 2-

1. Fill a clear drinking glass half way with water.
2. Place a thermometer into the water and measure the temperature of the water.
3. Add the antacid tablet to the water and use the thermometer to gently stir to begin dissolving the tablet.
4. Hold the thermometer in the water as the tablet continues to dissolve; note the temperature of the water increases.

Credits

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