

Climate Change Causes and Solutions

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Talking About Climate Change

Understanding climate change is important.

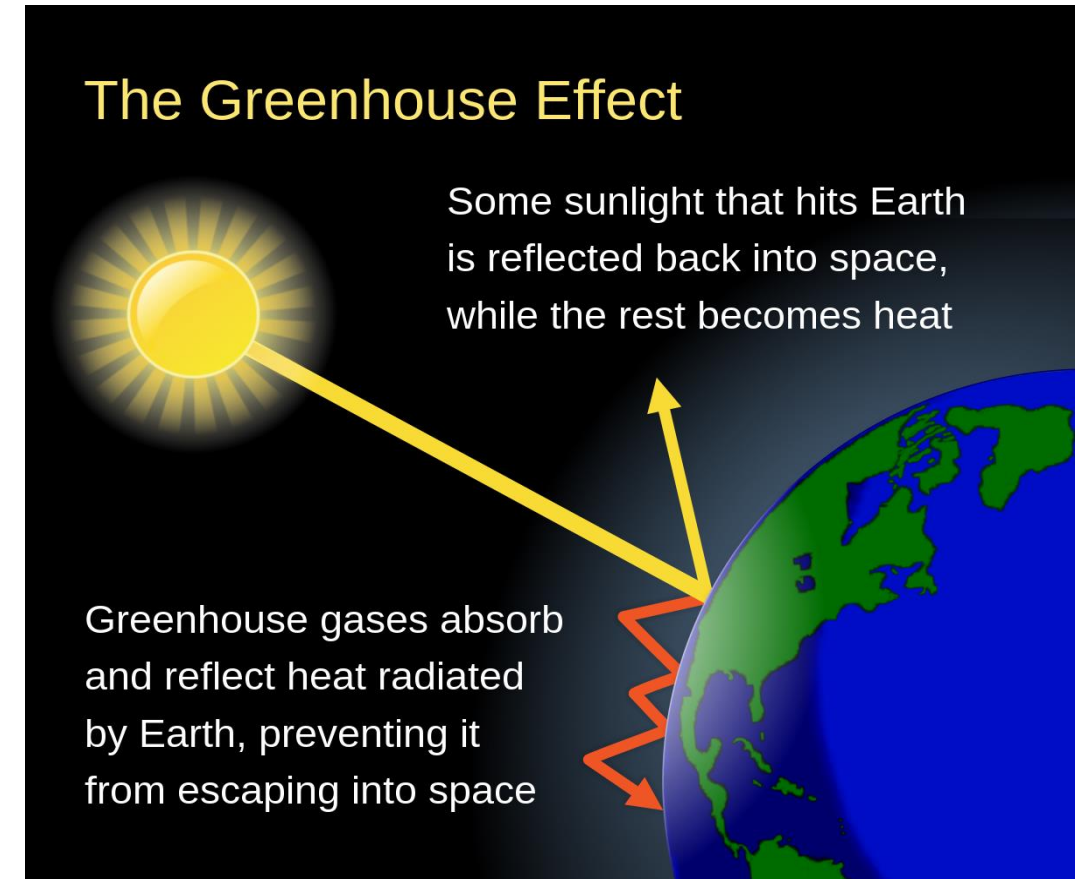
The Monterey Bay Aquarium strives to provide climate change education to inspire conservation of the ocean (Monterey Bay Aquarium [MBA], 2022a)

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Figure 1. Earth: 3D Model (AirStudios, 2020)

The Greenhouse Effect

- Allows life to exist on Earth
- High emissions, however, are causing negative effects (Shaftel et al., 2022, para. 1)



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Figure 2. Untitled depiction of the greenhouse effect (Wikipedia, n.d.)

Greenhouse Gases

Greenhouse Gas	Created by Natural Processes	Created by Human Activity
Carbon Dioxide (CO ₂)	X	X
Methane (CH ₄)	X	X
Nitrous oxide (N ₂ O)	X	X
Chlorofluorocarbons (CFCs)		X

Table 1: *How are greenhouse gases made?* (Shaftel et al., 2022)

The Effects of Climate Change on the Ocean



Audio: Air Woosh Underwater (YouTube, n.d.)

The ocean is:

- Absorbing heat
- Growing more acidic
- Losing oxygen (MBA, 2022b)

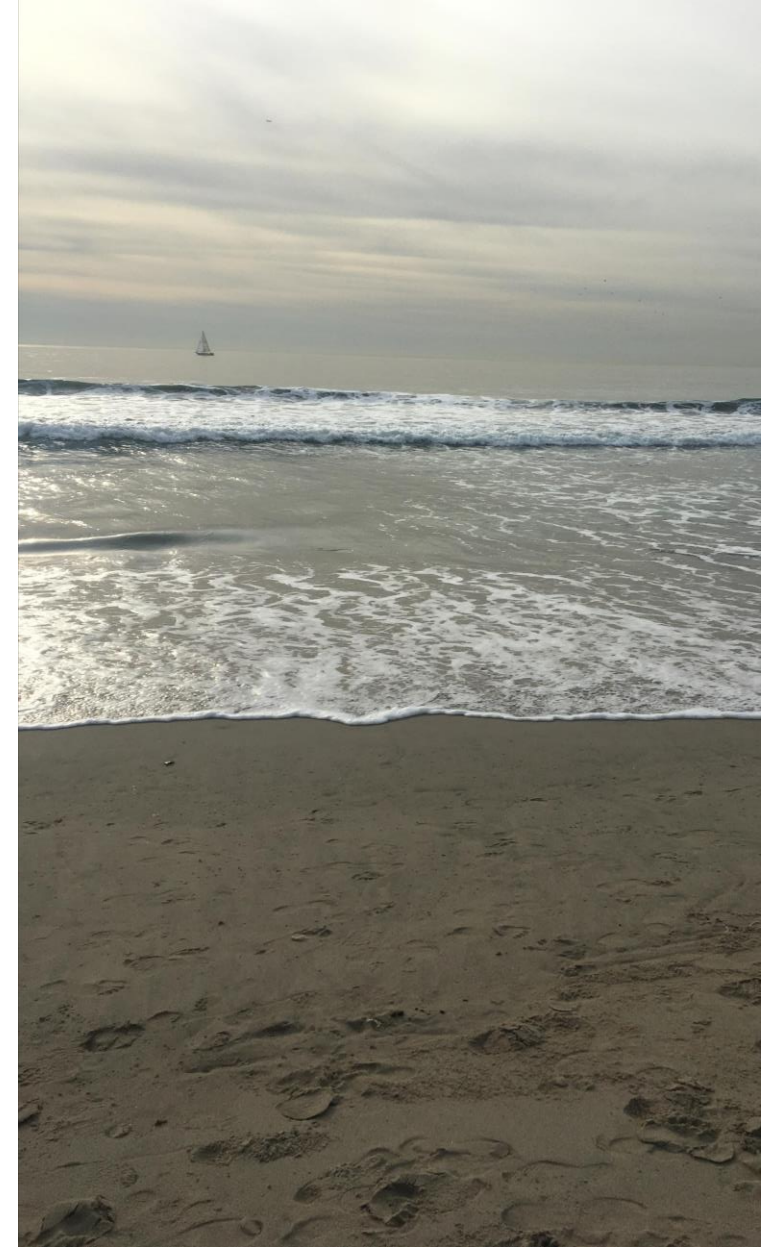
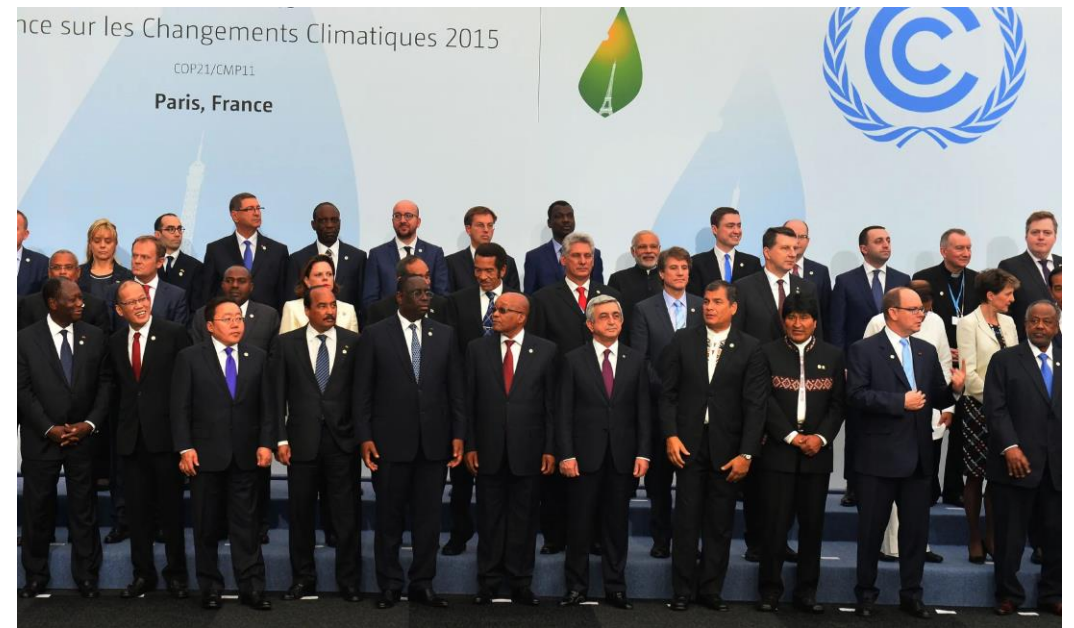


Figure 3. *Picture of ocean* (Source: Own photo)

The Paris Agreement



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Figure 4. Heads of State and Government at COP21, in Paris, France on November 30, 2015 (Modi, 2015)

Global leaders have taken action to protect our planet:

The Paris Agreement is the first global commitment by world leaders to fight climate change. Signed in 2015, the Paris Agreement set the goal of keeping the average global temperature within 2 degrees Celsius of pre-industrial levels. The Agreement called on each nation to set its own targets and strategies to reduce emissions. (MBA, 2022b, para. 42)

What You Can Do

- ◆ Support climate leaders and policies
- ◆ Use alternative transportation
 - Research local transit options
 - Consider high-efficiency or electric options if purchasing a vehicle
- ◆ Reduce energy use
 - Turn off lights not in use and switch to LED bulbs
 - Wash laundry in cooler water
 - Put on extra clothing layers before adjusting the thermostat
 - Communicate with your utility provider on possible energy reduction options
- ◆ Reduce, reuse, and recycle
 - Buy from second-hand stores in your area
 - Repair items before replacing them
 - Eat sustainable seafood
 - Avoid single-use plastic (MBA, 2022d)

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