



# CO<sub>2</sub> “Monster” Classroom Presentation: Understanding Climate Change

## What is Climate Change?



As the United States industrialized in the mid-1800s, people began to burn enormous quantities of coal, oil and natural gas. We now use these fuels to power our homes, businesses, and cars.

However, burning fossil fuels releases carbon dioxide, which is a heat-trapping gas, into the atmosphere. This is why our climate is changing.



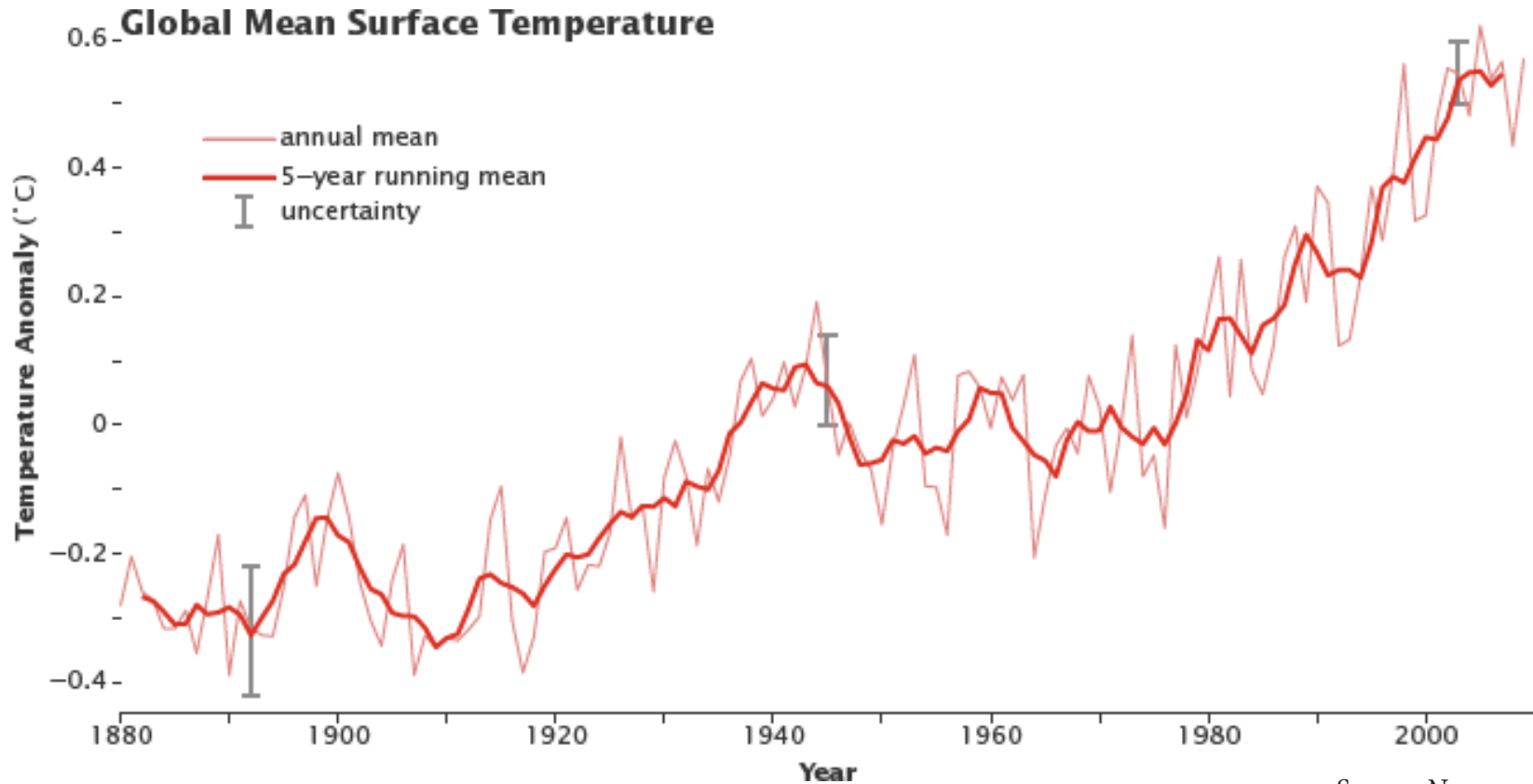
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Heat-trapping gases are sometimes referred to as greenhouse gases. Though these gases exist organically in the atmosphere and help keep our planet warm enough for plants and animals to live, the extra amount we are adding is causing big problems.



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Source: Nasa.gov

The main problem is the Earth is getting too warm. The average temperature of the Earth is rising. Scientific observation and measurements from all over the world tell us this is true, and we must do something NOW.



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### What is Carbon Dioxide Anyway?



Source: Michigan Radio

- Carbon is an element that's natural to our planet. It's found all over the world and in every living thing.
- Oxygen is another element that's natural to our planet and is found in the air we breathe.
- When carbon and oxygen bond, they form a colorless, odorless gas called carbon dioxide (CO<sub>2</sub>).
- Every moment we burn fossil fuels, especially when we drive our cars (and sit in them while they idle), we are producing carbon dioxide.
- This added amount of CO<sub>2</sub> is entering our atmosphere more quickly than natural processes can remove it.
- This means that the amount of CO<sub>2</sub> in the atmosphere continues to increase... causing our climate to change.



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### What Are the Signs of Climate Change?

Well, besides higher temperatures...

- Changing Rain and Snow Patterns
- Changing Wildlife Migration Patterns
- More Droughts and More Floods
- Melting Glaciers
- Shrinking Sea Ice
- Thawing Permafrost
- Warmer Oceans
- Increased Ocean Acidity
- Rising Sea Levels



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**Climate change poses a challenge to the future of our planet...but we can do something about it!**