

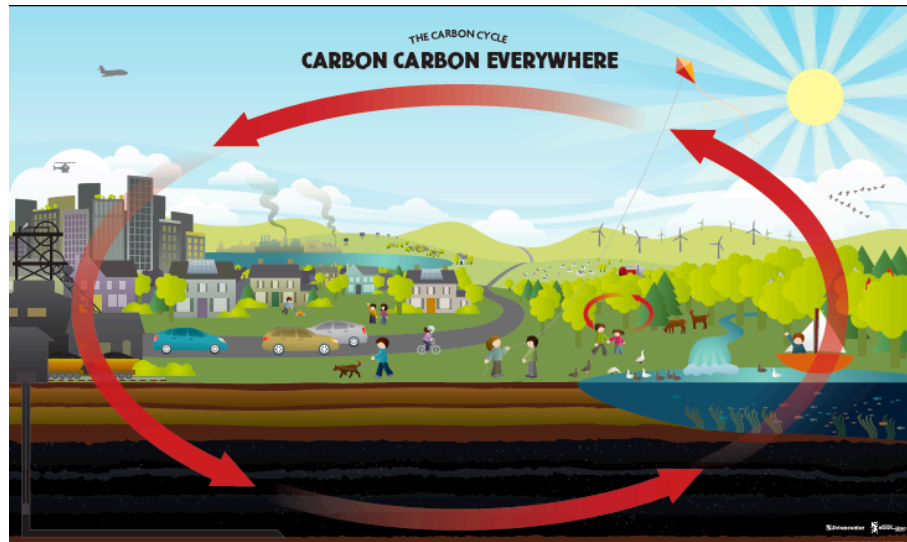


# Carbon, Carbon Everywhere

Learn how carbon moves all around us!

Background Info

**Climate Change** is a result of the relatively recent increase in atmospheric **carbon dioxide (CO<sub>2</sub>)**, a **greenhouse gas**. The increase in CO<sub>2</sub> is largely attributed to the use of **carbon-based fossil fuels** such as coal, natural gas, and oil. When they are burned, these energy sources release large amounts of CO<sub>2</sub>.



Fossil fuels are ancient plants and animals that have been exposed to extreme amounts of heat and pressure over long periods of time. Since they are made from ancient plants and animals, fossil fuels contain large amounts of carbon, the main building block of life. After thousands and thousands of years, these plants and animals became liquefied or solidified (to become oil, natural gas, or coal) and often contain parts or imprints of fossilized plants or animals, which is why we call them fossil fuels.

**Renewable energy sources** such as solar, wind, or geothermal are good alternatives to carbon-based fossil fuels. Because they are not carbon based they do not contribute to the increased levels of CO<sub>2</sub> that are responsible for climate change. Furthermore, these renewable energy sources can be replaced within a short period of time. Carbon based non-renewable energy sources, such as fossil fuels cannot be replaced. Once we use fossil fuels up, they are gone.

The current and future impacts of climate change are relatively uncertain. Scientists agree that the world is getting warmer, but there are still many unanswered questions about the rate of warming, the impacts of warming, and what should be done about it. Energy conservation, or cutting back on the amount of carbon based energy that we use, is one direct way that we can help prevent CO<sub>2</sub> from entering the atmosphere, to help reduce the rate of climate change. There are many small things that people (including kids!) can do to cut back on their energy use. Over time these small savings can really add up, leading to a lasting impact.

## Credits

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