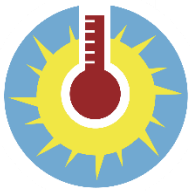

Climate Change

Wildlife | Insects | Forests | Habitats | Ecology | Ecosystems | Birds | Survival | Pollinators | Plants | Fish | Species

Climate change is any significant change in climate lasting for an extended period of time. Climate change includes major changes in temperature, precipitation, or wind patterns, among other effects, that occur over several decades or longer.

Our natural world is a complex system. Climate has changed throughout history and is one of the things that make our planet so unique and beautiful. Man-made climate change threatens the delicate balance that keeps the Earth systems intact.

Global average temperatures are rising and the warming trend is the result of human activities. Burning fossil fuels for transportation, manufacturing, heating and cooling and electricity generation, releases greenhouse gases into the atmosphere.

Levels of these heat-trapping gases, particularly carbon dioxide (CO_2), are increasing at a faster rate than at any other time on record. The consequences of this unprecedented change in the atmosphere are both uncertain and likely to be extreme as is evident by the increase in extreme weather events, such as winter storms, wildfires, droughts and floods.

Whole school communities can play a key role in reducing greenhouse gas emissions by actions that can shrink their "carbon footprints."

Driving Questions

- ✓ How can we, as engineers, design, develop, and test a carbon saving instrument, machine, space, plan, etc. that has the potential to reduce carbon output in an industry?
- ✓ How can we, as landscape architects, design and construct an outdoor green space with a net zero carbon impact (reduce greenhouse gas emissions), which will provide opportunities for students to learn and study?
- ✓ How can we, as atmospheric scientists, better understand how our city's climate is changing and raise awareness of local issues and offer actions community members can take toward mitigation?
- ✓ How can we, as environmental protection technicians, monitor our air, water, and soil for pollutants and work with our local city government to increase awareness and effectively work together to make the community a healthier place to live?

TOOLS AND RESOURCES

Top 10 Tips | Fast Facts | Standards Alignment | Sample Action Plan | Climate Change Audit | Lesson Links