

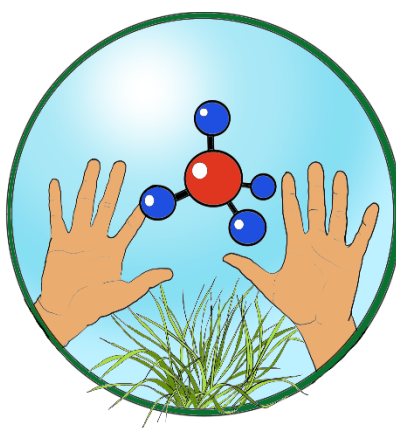
Carbon Sequestration

The release of carbon dioxide into the atmosphere is the leading cause of global climate change. Once released by human activities like burning fossil fuels, carbon dioxide can remain in the atmosphere for hundreds of years. In discussing ways of combatting climate change, carbon sequestration is thus an important topic for exploration.

Carbon sequestration refers to methods for removing carbon from the atmosphere and capturing it for long-term storage. Many methods are being explored, including:

- **Forestry:** Planting trees and rebuilding forests.
- **Wetlands:** Restoring global wetlands. The structure of wetlands make them among the most efficient ecosystem types for capturing carbon.
- **Carbon Farming:** Building farm soils, growing food for local use, and farming more intensively (with practices like no-till farming and cover cropping) can all reduce carbon emissions and increase carbon removal.
- **Biomass Burial:** Burying carbon-heavy materials like fallen trees or biochar (a type of charcoal) can help to build health soil while also holding carbon in the ground.

Research one of these carbon sequestration methods. How does it work? Are there projects currently using these methods to mitigate climate change? What are some challenges or barriers to the method?



Extender Activity:

Geoengineering refers to technological methods of changing our atmosphere. The potential for geoengineering to help in fighting climate change is controversial. Research some geoengineering projects. What are they trying? What are the criticisms of these projects?

