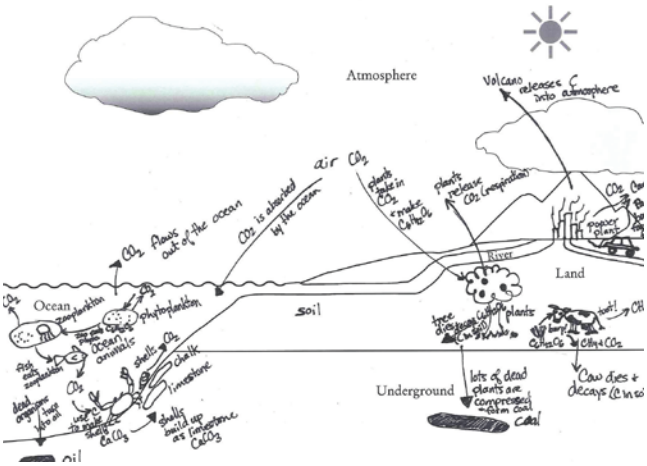
# *Carbon Reservoirs and Global Carbon Cycling*

***Introduction***
***(Grades 6-12)***

## Overview

Students begin to explore the carbon cycle, including the main processes or flows that move carbon between reservoirs on Earth. They first do a Quick Write and share ideas with a partner to access their prior knowledge and learn more about carbon flows and reservoirs by sorting carbon cards and viewing a video. Students then make a sketch from an image of the local estuarine/harbor ecosystem, labeling all the carbon reservoirs and flows. A reflection provides the opportunity to compare their ideas before and after the activity and to consider what questions still remain.




## Learning Outcomes

Students will be able to:

- Share their prior knowledge of carbon and carbon cycling
- Create a diagram of carbon reservoirs and flows

## NGSS Connections

- **Disciplinary Core Ideas:** MS.LS2.B Cycles of Matter and Energy Transfer in Ecosystems
- **Science and Engineering Practice:** Developing and Using Models
- **Crosscutting Concepts:** Systems and System Models

## Climate/Ocean Literacy Connections

- 3.E: The ocean dominates Earth's carbon cycle. Half of the primary productivity on Earth takes place in the sunlit layers of the ocean. The ocean absorbs roughly half of all carbon dioxide and methane that are added to the atmosphere.

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