# Carbon Cycle

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# Carbon Cycle

- Fourth most abundant element in universe
- Building block of all living things
- Main Pathway— in and out of living matter

## Key Terms

Carbon Cycle- Circulation of carbon through ecosystems

**Carbon**- A non-metallic element found in coal, petroleum and natural gas. Major component of life.

**Soil Respiration**- Carbohydrates are oxidized and returned to the air by soil microorganisms that decompose dead animals

## Biological Importance of Carbon

- All living organisms contain carbon
- CO<sub>2</sub> is found in all living organisms
- Plants use carbon dioxide and water to form simple sugars (photosynthesis)

### **Ecological Importance of Carbon**

- Carbon is needed for life
- Carbon dioxide is a greenhouse gas
- Carbon is necessary for life, but carbon dioxide can be harmful

- All living things are made of carbon. Carbon is also a part of the ocean, air, and even rocks. Because the Earth is a dynamic place, carbon does not stay still. It is on the move!
- In the atmosphere, carbon is attached to some oxygen in a gas called carbon dioxide.

#### **Carbon Cycle**

 Plants use carbon dioxide and sunlight to make their own food and grow. The carbon becomes part of the plant. Plants that die and are buried may turn into fossil fuels made of carbon like coal and oil over millions of years. When humans burn fossil fuels, most of the carbon quickly enters the atmosphere as carbon dioxide.

#### **Carbon Cycle**

#### Crabon -Green House Effect

 Carbon dioxide is a greenhouse gas and traps heat in the atmosphere. Without it and other greenhouse gases, Earth would be a frozen world. But humans have burned so much fuel that there is about 30% more carbon dioxide in the air today than there was about 150 years ago, and Earth is becoming a warmer place



