

# Atmosphere



## **Description:**

You are the atmosphere, the gases that surround our planet. You have carbon in the form of carbon dioxide and methane gases. These are greenhouse gases, which help to maintain the temperature of the planet.

## **Options for carbon movement:**

1. water
2. land plants

## **Explanation for carbon movement:**

1. Carbon dioxide from the atmosphere diffuses and dissolves into water.
2. Carbon is taken up by land plants to perform photosynthesis.

# Water



## **Description:**

You are the water on our planet. Carbon dioxide gas dissolves in water and allows aquatic plants to perform photosynthesis. Carbon in water also helps certain aquatic animals make their skeletons and shells.

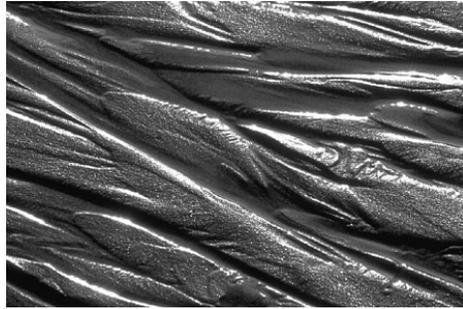
## **Options for carbon movement:**

1. aquatic plants
2. aquatic animals
3. atmosphere

## **Explanation for carbon movement:**

1. Aquatic plants use carbon dioxide from the water to perform photosynthesis.
2. Some marine organisms take carbon from the water to build their skeletons and shells.
3. Carbon dioxide can diffuse from the water back into the atmosphere.

# Aquatic Plants



## **Description:**

You are aquatic plants. You get carbon dioxide from the water around you to perform photosynthesis.

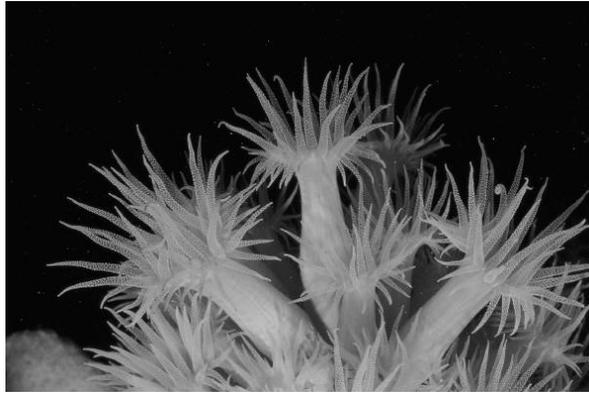
## **Options for carbon movement:**

1. water
2. sediments and rocks
3. aquatic animals

## **Explanation for carbon movement:**

1. Cellular respiration and decomposition put carbon back into the water.
2. Carbon from dead plants can be incorporated into sediments.
3. Animals consume aquatic plants and use carbon for energy or store it in their tissues.

# Aquatic Animals



## **Description:**

You are aquatic animals, such as coral and snails. You feed on aquatic plants and use carbon from the water around you to build your skeletons and shells.

## **Options for carbon movement:**

1. water
2. sediments and rocks

## **Explanation for carbon movement:**

1. Respiration and decomposition put carbon back into the water.
2. Carbon from dead animals can be incorporated into sediments on the ocean floor and can eventually become sedimentary and metamorphic rocks.

# Sediments and Rocks



## **Description:**

You are the sediments and rocks on our planet. Many rocks and sediments contain carbon from dead animals and plants or from chemical reactions.

## **Options for carbon movement:**

1. water
2. atmosphere

## **Explanation for carbon movement:**

1. Weathering and erosion of rocks deposits carbon in rivers and oceans.
2. Volcanic eruptions spew carbon-containing gases into the atmosphere.

# Land Plants



## **Description:**

You are the land plants on our planet. You use carbon dioxide from the atmosphere to perform photosynthesis.

## **Options for carbon movement:**

1. atmosphere
2. sediments and rocks
3. land animals

## **Explanation for carbon movement:**

1. Cellular respiration and decomposition put carbon back into the atmosphere.
2. Carbon from dead trees can be buried and incorporated into sediments.
3. Plants are consumed by animals that use carbon for energy or store it in their tissues.

# Land Animals



## **Description:**

You are land animals. You have carbon in your bodies, which you get from eating carbon-rich foods.

## **Options for carbon movement:**

1. atmosphere
2. sediments and rocks

## **Explanation for carbon movement:**

1. Respiration and the decomposition of dead animals put carbon back into the atmosphere.
2. Carbon from dead animals can be buried and incorporated into sediments.