

The Carbon Cycle

Read each and decide if it is TRUE or FALSE.

Record your answer in a 'T chart' in your lab notebook

To save time, simply record, the statement number in the TRUTH or FALSE column

Statement 1

The paths taken by carbon atoms through the carbon cycle are extremely complex and may take millions of years to come full circle.

Statement 2

The carbon in living things is different than the carbon found in nonliving things.

Statement 3

Global warming due to excess greenhouse gases (such as carbon dioxide) is just a theory.

Statement 4

Temperatures on Earth have increased in the last century.

Statement 5

Volcanoes are responsible for most of the increase in atmospheric carbon dioxide.

Statement 6

Human activities release much less CO₂ than that which is emitted by volcanoes.

Statement 7

Less than 1% of annual CO₂ emissions come from volcanoes.

Statement 8

Fossil fuels were formed from dinosaurs.

Fossil fuels were formed from plants and animals that lived, died, and were buried in primordial swamps and oceans 300 million years ago.

Ocean water is not part of the carbon cycle.

Oceans are the second largest carbon sink. They absorb 38,400 gigatons of carbon from the carbon dioxide in the atmosphere, where it becomes carbonic acid.

The ability for organisms to absorb carbon dioxide is changing, and the excess carbonic acid is lowering pH levels and affecting shell formation in marine organisms.

Organic carbon represents the largest source of carbon.

The biosphere holds the most carbon on Earth's surface.

Carbon released into the atmosphere by the burning of fossil fuels has contributed significantly to the increase of global temperatures.