



Name: _____

Date: _____

SCRIPT

Every living thing on Earth is made of carbon...including you. If you looked at a pie graph of all the elements on Earth, carbon would take up more of the pie than any other element.

There are the same number of carbon atoms on earth now as there were 10,000 years ago...and the same number there will be 10,000 years from now.

These atoms are constantly on the move, though... combining with other elements, being used by both animals and plants, and sometimes seeping into the Earth or the oceans where they form other substances.

This constant recycling of carbon is a biogeochemical cycle. This is a fancy term for the way elements like carbon and water move around ... interacting with Earth's living and non-living parts.

Every day, when you eat, you take in carbon that has been either eaten by the animal you eat or taken in by the plants you eat.

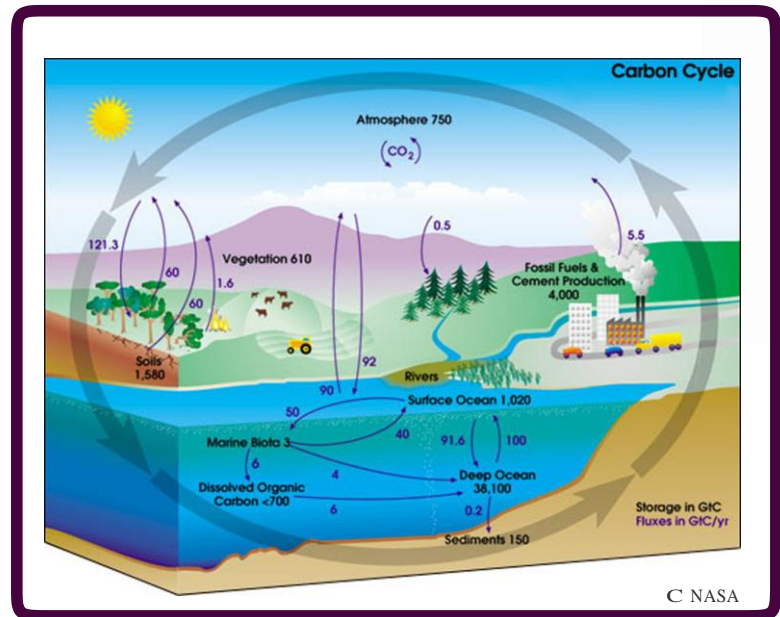
Carbon leaves your body every day. When you breathe, you inhale oxygen (O₂) molecules and exhale molecules of carbon dioxide (CO₂) molecules. These molecules consist of both carbon and oxygen.

This is great for plants, because they need CO₂ to survive. Plants make their own food through photosynthesis and they need CO₂ to make that production happen.

(As a bonus, plants give off oxygen as they make their own food ... and we need oxygen to live.)

Plants keep some carbon inside them as they develop and grow.

When plants die, bacteria, fungi and other decomposers use the carbon that was in the plants to grow and multiply. However, if there is more carbon than the decomposers can use, deposits such as coal and oil are formed.



The carbon may turn into coal, oil, and other fossil fuels. That's why the Earth's crust and mantle are called carbon sinks. Sinks are areas that hold substances -- in this case, carbon.

Some of the carbon cycling through our planet also gets trapped by another kind of carbon sink: the Earth's oceans.

That's the way this biogeochemical cycle worked forever...carbon circulating through people, plants, and animals and sometimes being taken in and stored in sinks.

Until recently.

People today are using more and more fossil fuel... drawing from the carbon sinks around the world. Gas for their cars, oil for heating their homes, fuel for the machines that power our industry ... they all require the burning of fossil fuels. And when fossil fuels are burned, carbon—in the form of carbon dioxide—is released into our atmosphere.

