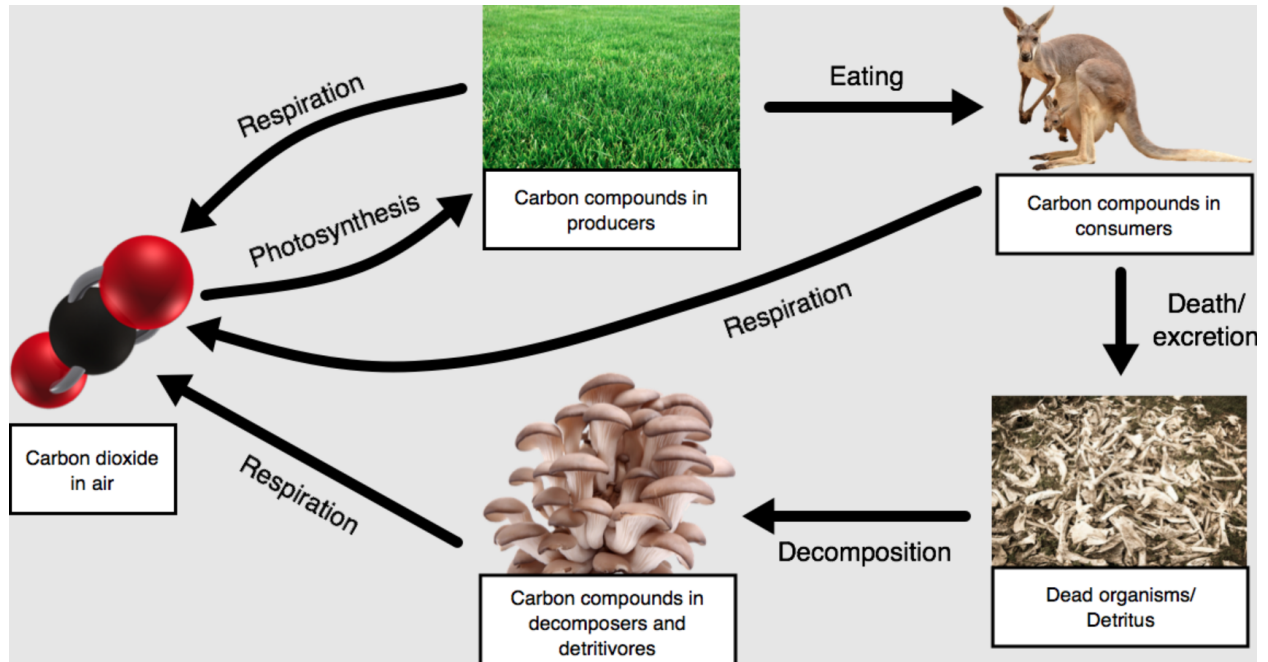
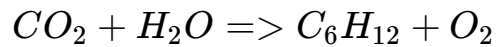


Carbon Cycle

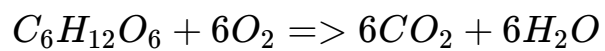


Photosynthesis equation:



Carbon dioxide + Water → Glucose + Oxygen

Respiration equation:

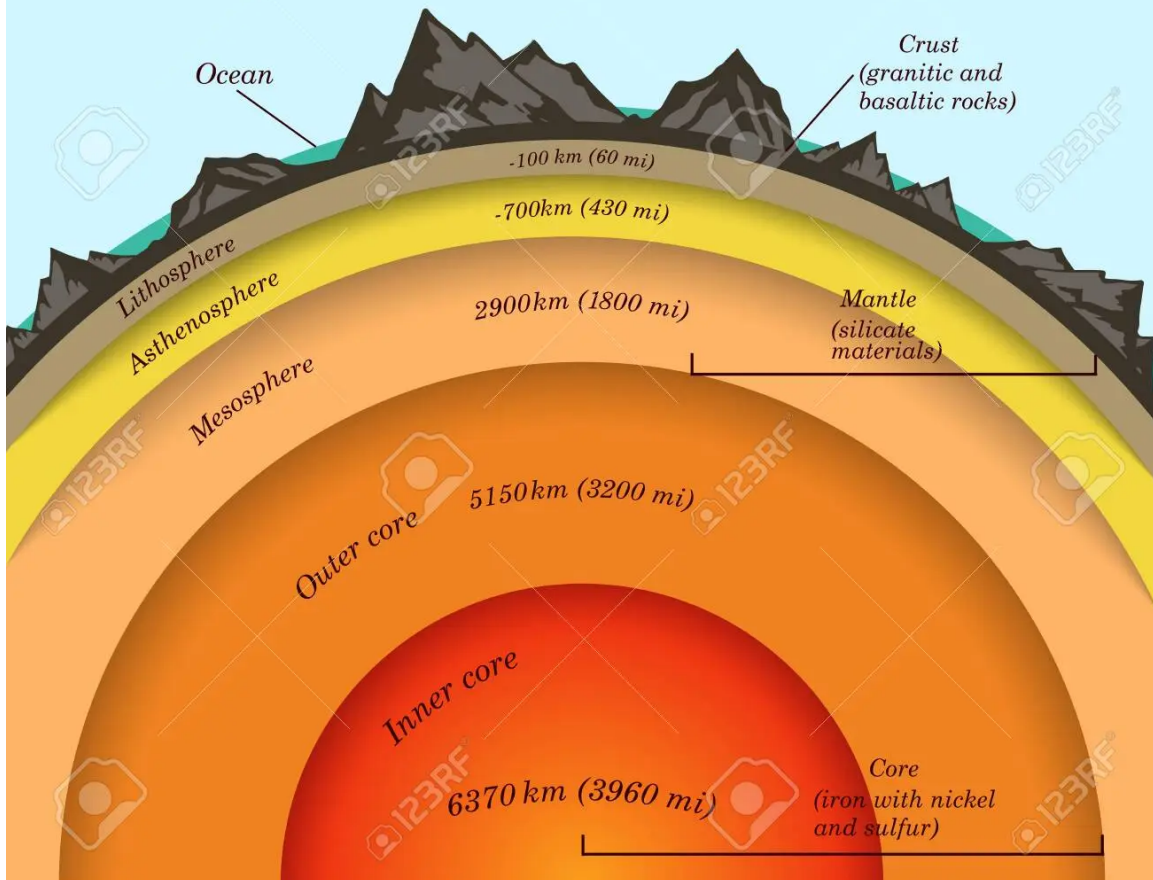


Glucose + Oxygen (energy released) → carbon dioxide + water

The Carbon Cycle: In Depth

- Carbon is an element that is vital to most living organisms on earth.
- It is also a key component in our atmosphere
- Carbon has the ability to cycle through our earth, the ocean, biotic factors, and abiotic factors in the air.
- The carbon recycles between five major locations. These items include the atmosphere, the biosphere, the earth's interior, the ocean and human influence.
- Carbon is found in the atmosphere in at least two forms. Carbon Dioxide (CO₂) and Methane (CH₄). These can be absorbed by autotrophs like plants and plankton to be used for photosynthesis.
- It can also be absorbed by bodies of water and the ocean. When carbon is absorbed in the ocean, it reacts with the water to create carbonic acid.
- The terrestrial biosphere, which is another term for the earth's land, has several paths of carbon it can take.
- First there is an exchange between plants and animals. Plants absorb carbon in the form of carbon dioxide for photosynthesis and animals release carbon dioxide during cellular respiration. Also, heterotrophs eat plants that contain carbon.
- Animals also release carbon as methane during digestion and excretion.
- The soil contains decomposers that release carbon into the atmosphere and the soil.
- Carbon is also stored in the earth's interior. Carbon in the lithosphere includes fossil fuels like coal, oil and natural gas. Along with deposits like limestone.
- Volcanoes may release some of this carbon stored in the lithosphere when they erupt.

EARTH STRUCTURE



- The ocean has the greatest exchange quantity of cycled carbon. It stores a lot of it. The ocean absorbs carbon in the form of carbon dioxide. The ocean also has a large amount of plankton that absorbs carbon dioxide that it uses for photosynthesis.
- Humans also influence the movement of carbon. Humans burn fossil fuels which release carbon dioxide into the atmosphere. In addition, deforestation from humans can cause the amount of carbon in the atmosphere to increase.