

## Carbon Cycle Alterations - Answers

### Deforestation in the Amazon

When humans cut down trees and burn them, the carbon that was stored in the trees is released.

*Direction: Biosphere to Atmosphere*

### Planting New Trees

As newly planted trees grow, they take in more carbon dioxide to perform photosynthesis.

*Direction: Atmosphere to Biosphere*

### Burning Fossil Fuels in Automobiles

When humans burn fossil fuels, which take millions of years to form, the carbon in the fossil fuels is released.

*Direction: Lithosphere to Atmosphere*

### Farming Cattle

When cattle release gas from their digestive system, they release methane, a carbon-containing gas.

*Direction: Biosphere to Atmosphere*

### Increased Cement Manufacturing for Dams

When humans create cement for dams and other structures, they heat rock containing calcium carbonate and carbon dioxide is released.

*Direction: Lithosphere to Atmosphere*

### Capture and Store Carbon in Geological Formations

When humans capture carbon from power plants, they sometimes inject it into the ground where it is stored.

*Direction: Lithosphere to Lithosphere*

*Atmosphere to Lithosphere acceptable, since carbon that would otherwise be released to the atmosphere is stored in the lithosphere.*

### Burning Fossil Fuels for Electricity

When humans burn fossil fuels, which take millions of years to form, the carbon in the fossil fuels is released.

*Direction: Lithosphere to Atmosphere*

### Farming Rice

When humans farm rice in paddies, the fields are flooded and bacteria decompose organic matter resulting in methane, a carbon-containing gas.

*Direction: Biosphere to Atmosphere*