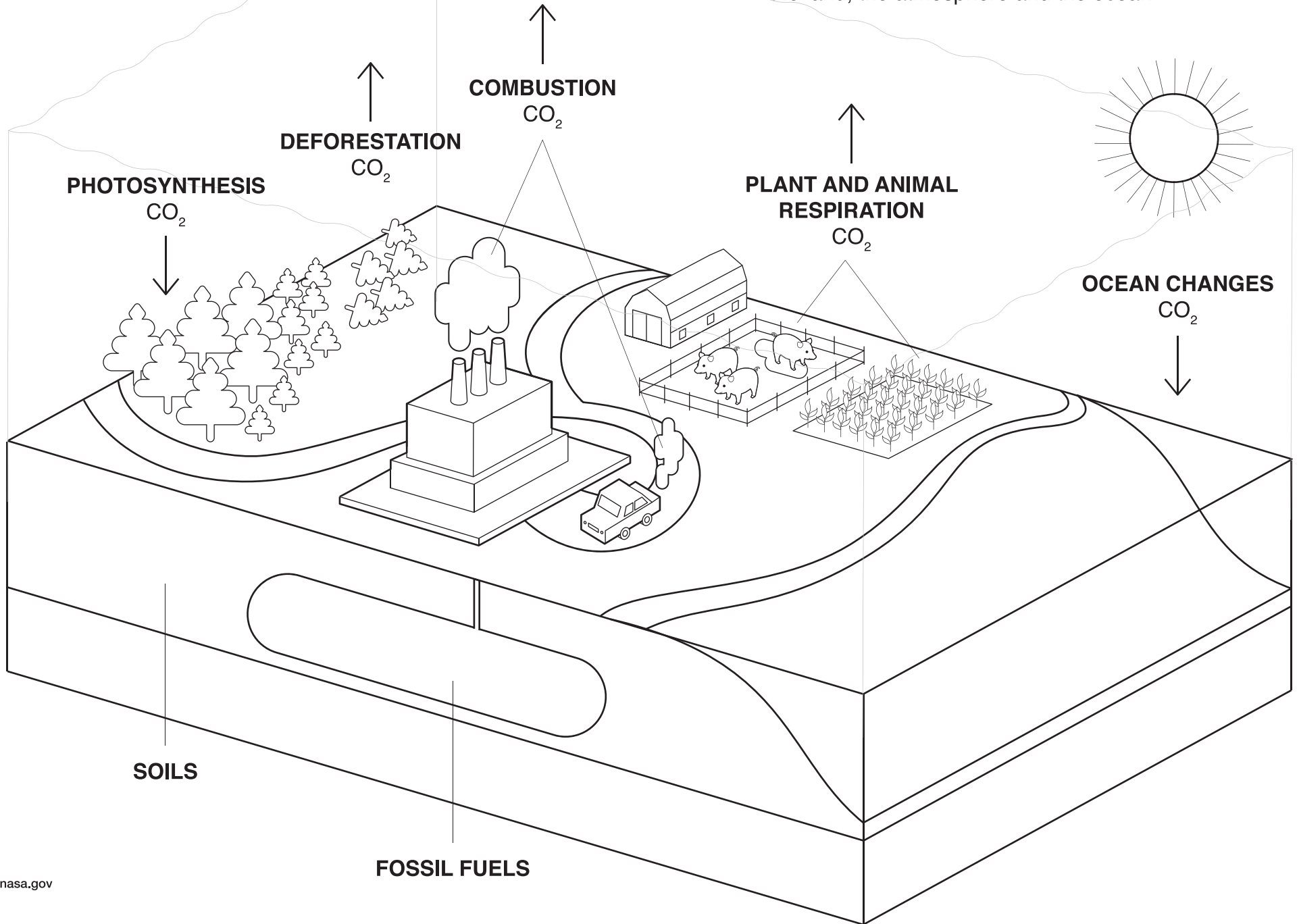


THE CARBON DIOXIDE CYCLE

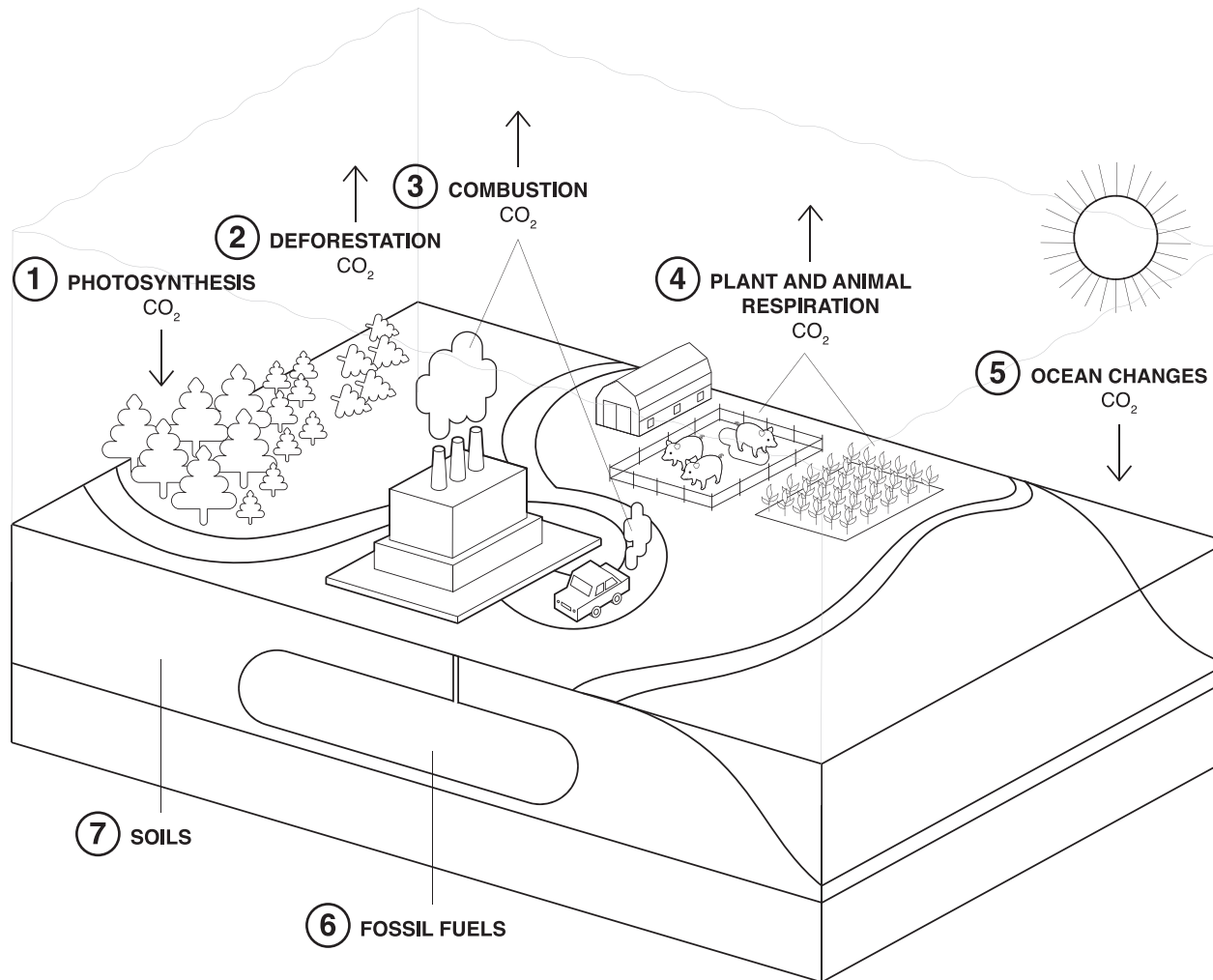


The movement of carbon dioxide (CO₂) between the land, the atmosphere and the ocean



THE CARBON DIOXIDE CYCLE

The movement of carbon dioxide (CO₂) between the land, the atmosphere and the ocean



- 1 PHOTOSYNTHESIS**
Green leaves use energy from sunlight through photosynthesis to combine carbon dioxide (CO₂) from the air with water and nutrients from the ground to produce sugars, their main source of food.
- 2 DEFORESTATION**
Trees and plants in the forests contain a lot of carbon. When they decay, or when people clear the forests for non-forest uses (such as agriculture, grazing and timber), CO₂ escapes back into the atmosphere.
- 3 COMBUSTION**
Burning fossil fuels like coal, natural gas and oil increases the concentration of atmospheric CO₂.
- 4 PLANT AND ANIMAL RESPIRATION**
Some CO₂ is released back into the atmosphere through plant respiration—plants “breathing” out.

Animals that eat plants digest the plants’ sugar molecules to get energy for their bodies. Respiration, excretion and decomposition release some CO₂ back into the atmosphere.
- 5 OCEAN CHANGES**
The ocean plays a starring role in whatever happens with the environment. One big part of its role is soaking up CO₂.
- 6 FOSSIL FUELS**
The largest single source of rising atmospheric CO₂ is the burning of fossil fuels (coal, oil and gas).
- 7 SOILS**
Soils, including permafrost, react in complex ways to changes in our environment by becoming sources and sinks for CO₂.