

FOREST RECYCLING SYSTEM

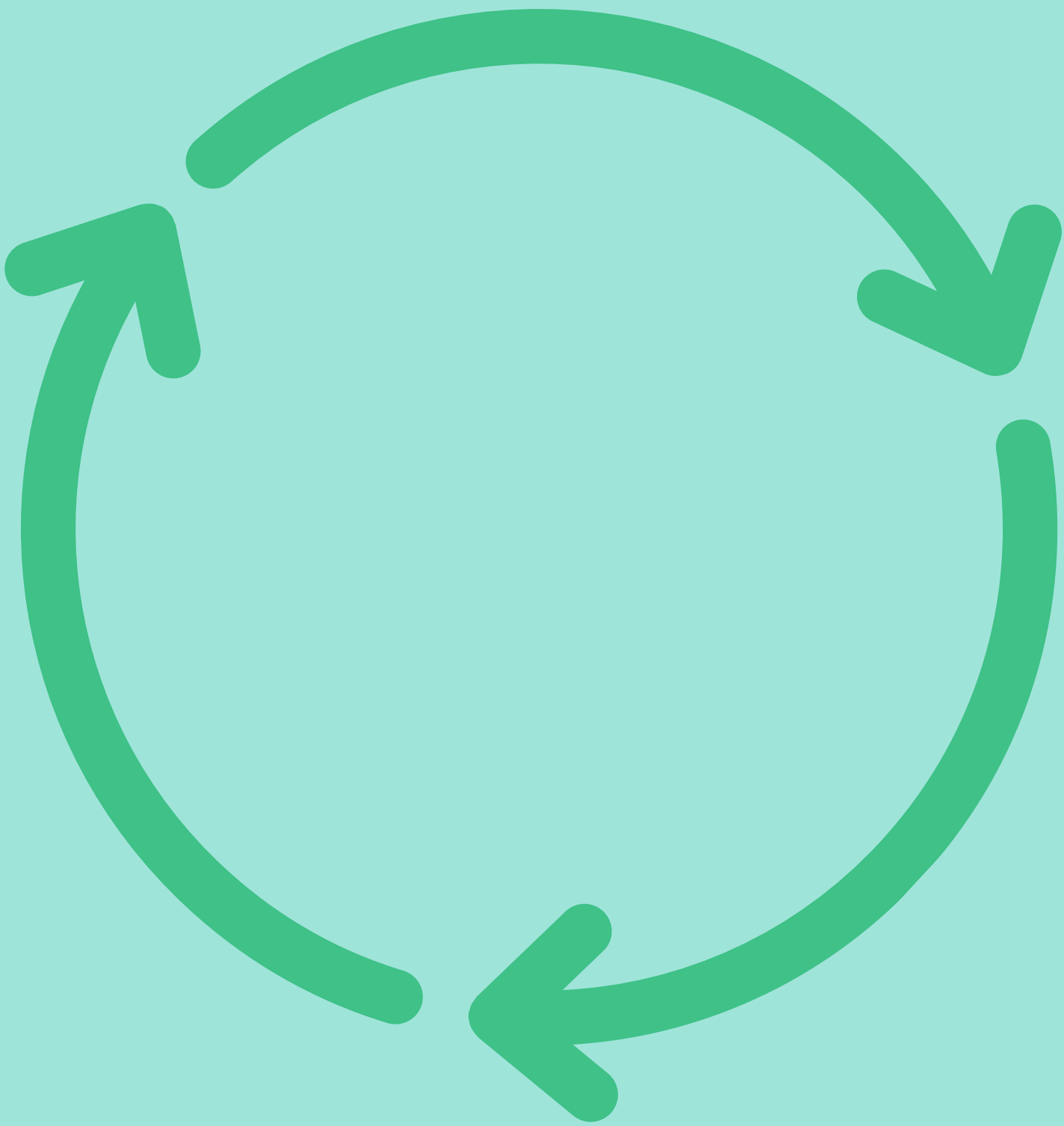


CITIZEN ENGAGEMENT



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Biogeochemical cycles in a forest are like nature's recycling system. They are ways that elements (like carbon, oxygen, nitrogen, and water) move between the air, land, plants, animals, and soil in a forest. Let's break it down into simpler terms:

WATER CYCLE

Imagine the forest's water cycle as a big loop. Water falls from the sky as rain, lands on trees and the ground, and then either gets soaked up by the soil or flows into rivers and lakes.



Trees and plants also release water into the air (a bit like how we sweat) in a process called transpiration. Eventually, this water evaporates back into the sky, forming clouds, and the cycle starts all over again.

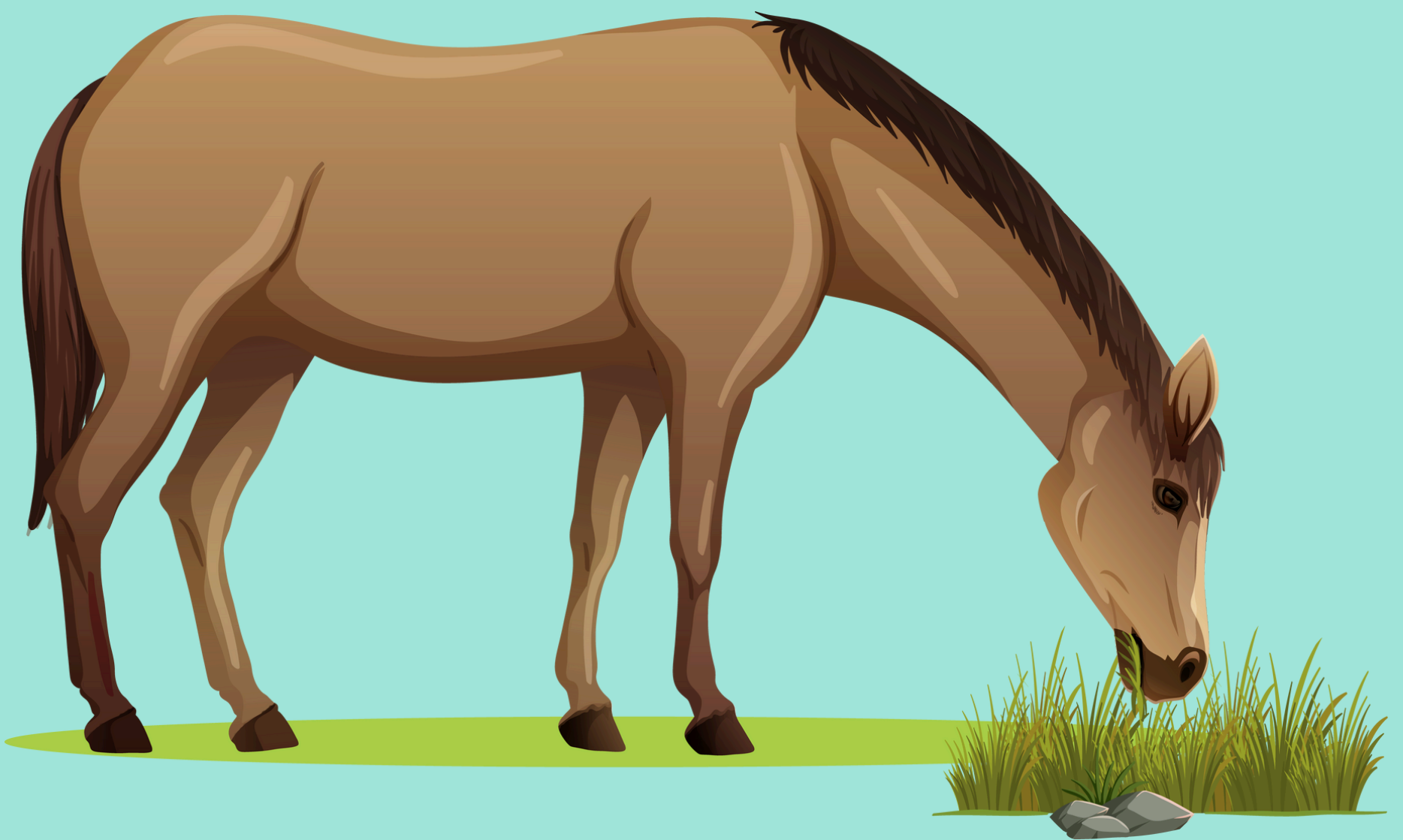


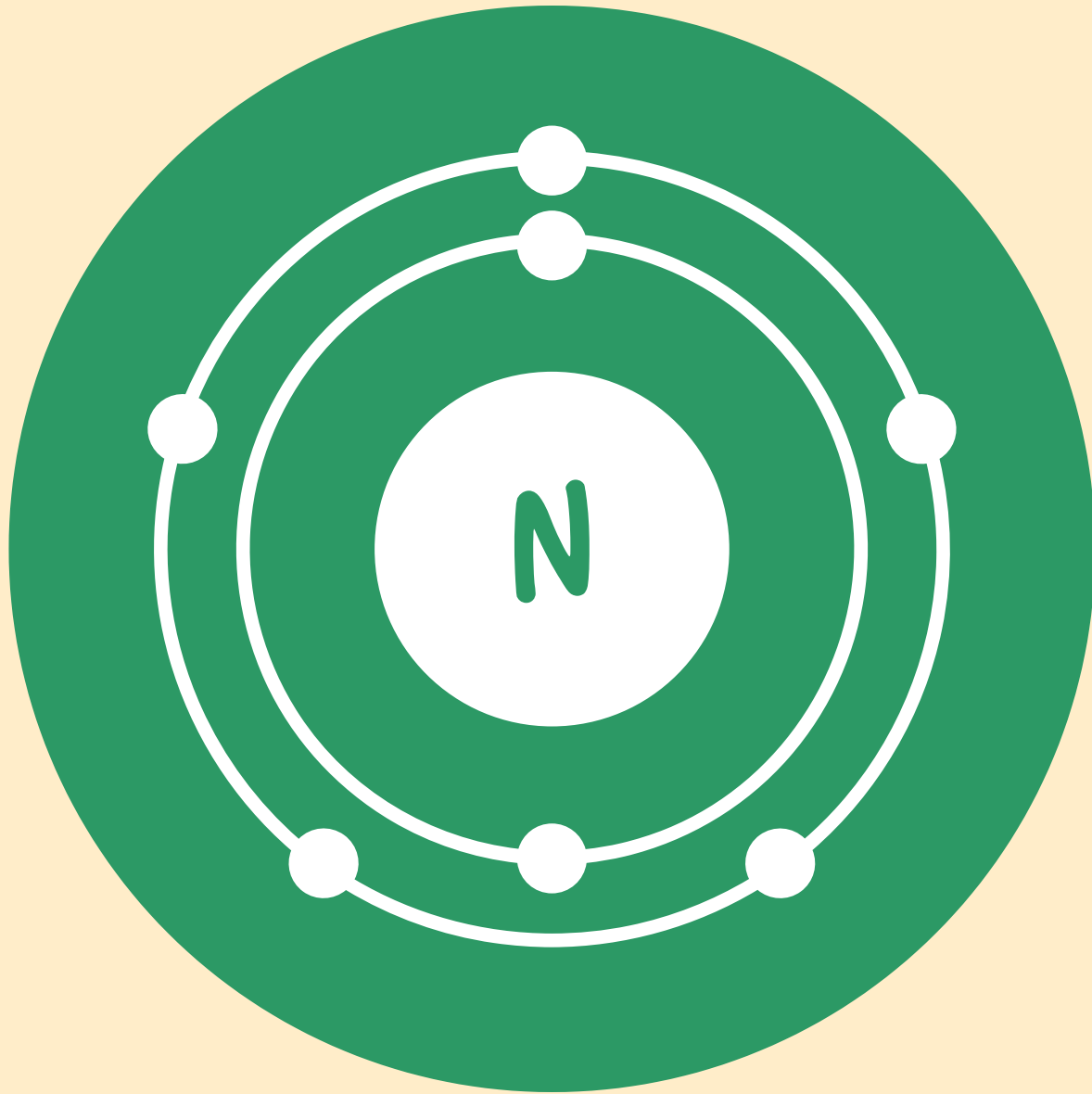


CARBON CYCLE

The carbon cycle is all about how carbon dioxide in air moves around. Plants in the forest take in carbon dioxide from the air to make their food using sunlight. The trees also produce oxygen as a by-product through this process.

When animals eat plants, they take in the carbon, and when they breathe out, carbon dioxide goes back into the air. Also, when plants and animals die, decomposers (like fungi and bacteria) break them down, returning carbon to the soil and air.





NITROGEN CYCLE

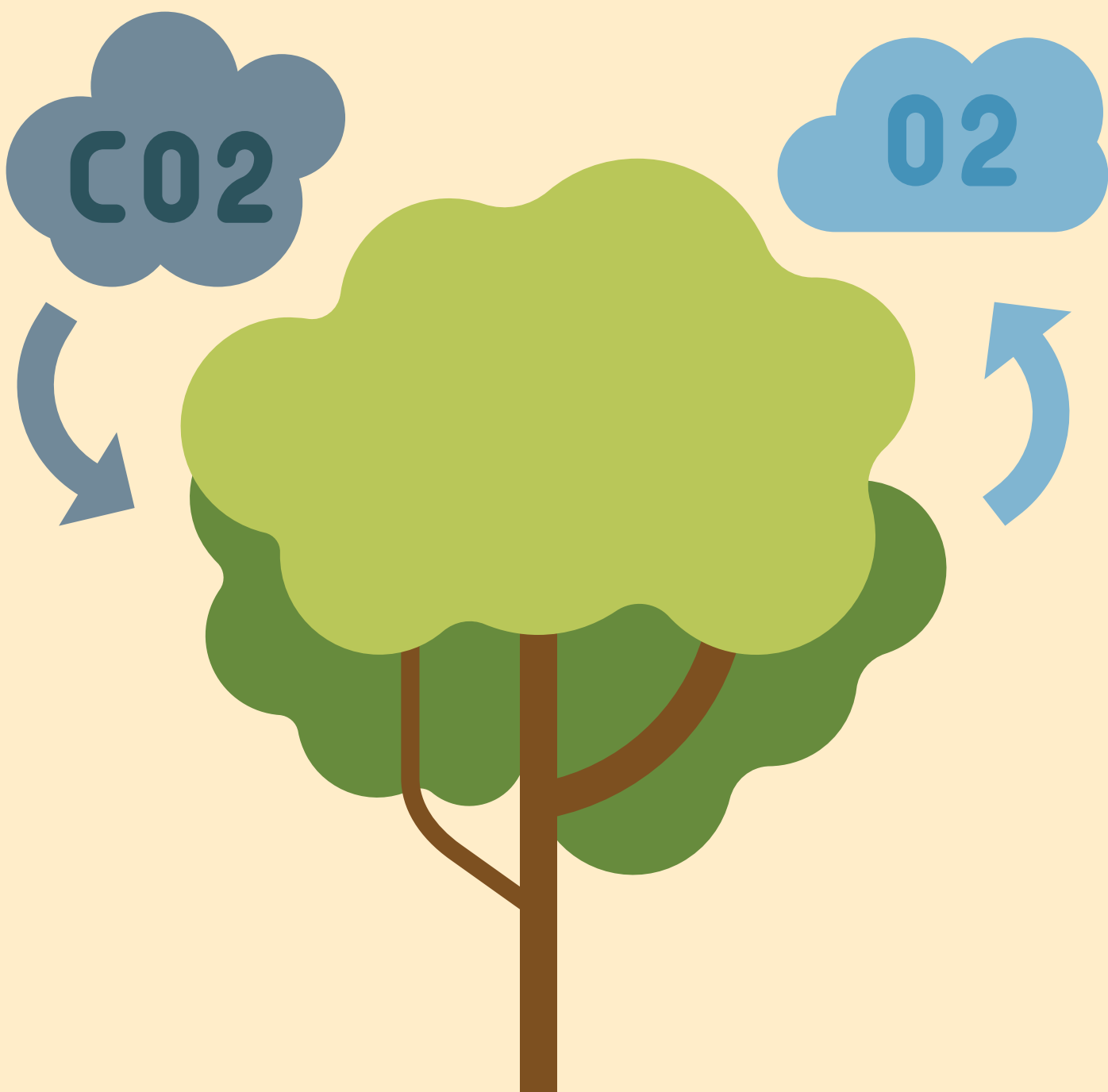
Nitrogen is a key part of all living things but most living things can't use the nitrogen in the air directly. In the forest, special bacteria in the soil and on some plant roots can grab nitrogen from the air and change it into a form that plants can use.

When animals eat the plants, they get nitrogen too. After plants and animals die, other bacteria in the soil turn the nitrogen back into a form that can go into the air or be used by new plants.



OXYGEN CYCLE

The oxygen cycle is closely linked with the carbon cycle. When plants make their food, they release oxygen into the air - the oxygen we breathe! Animals and plants use oxygen to turn their food into energy and release carbon dioxide, which plants need to make more food.





So, biogeochemical cycles in a forest help make sure that important elements keep moving around in nature, supporting life and keeping the forest healthy. It's like a big, natural recycling system that helps everything in the forest live and grow.