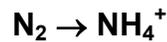


CHAPTER 2	Equations in the Nitrogen Cycle	BLM 2.2.10
OVERHEAD		

Bacteria in soil and water play an essential role in the nitrogen cycle, converting atmospheric nitrogen, which most organisms are unable to use, into usable forms.

Nitrogen gas (N_2) is removed from the atmosphere via nitrogen-fixing bacteria, which convert it to ammonium (NH_4^+), which plants can use.



Ammonium is also produced when decomposers break down organic matter via ammonification. Bacteria convert the ammonium into nitrite (NO_2^-) and then into nitrate (NO_3^-), which plants can also use.



Denitrifying bacteria then convert nitrite or nitrate back into nitrogen gas via denitrification.

