

KEY FACTS

- Only PHOTOSYNTHESIS removes CO_2 from atmosphere
- CO_2 added by: respiration, decomposition, combustion
- Decomposers: bacteria + fungi → break down dead matter → release CO_2 + mineral ions
- ★ Nitrogen cycle: fixing ($\text{N}_2 \rightarrow \text{NH}_4^+$), nitrifying ($\text{NH}_4^+ \rightarrow \text{NO}_3^-$), denitrifying ($\text{NO}_3^- \rightarrow \text{N}_2$), decomposers

KEY TERMS

Decomposer	Breaks down dead matter — releases nutrients
Nitrogen fixation	$\text{N}_2 \rightarrow$ ammonia/nitrates — by bacteria

■ EXAM TIP: Only photosynthesis removes CO_2 . All others add it. Nitrogen cycle: four types of bacteria, each with a specific role.