

*A-level nitrogen-cycle revision when
your first language is not English.*

Step by Step Revision - A-Level Biology - The Nitrogen Cycle: For Non-native English Speakers

by Bobby Flint

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STEP BY STEP REVISION

A-LEVEL BIOLOGY

THE NITROGEN CYCLE

FOR NON-NATIVE ENGLISH SPEAKERS



BOBBY FLINT

Step by step revision

A-level biology

The nitrogen cycle

For non-native English speakers

Bobby Flint

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Decomposition.

Task 4: Reading text and Prefixes

Step 1.

What do you already know about **decomposition**?

Step 2.

Read the following text on decomposition out loud.

Step 3.

If you find it too difficult to read, ask someone to **read it for you**, while you follow through.

Step 4.

Next, **take turns**, reading aloud to a study partner.

Has your reading improved with practice?

Step 5.

Prefixes are added to the beginning of a word to change its meaning.

Look at the following examples of prefixes:

Prefix	Prefix Meaning	Root	Root Meaning	New word	New Meaning
De-	Reversal of	-compose	Build up	Decompose	Decay or break down
Sapro-	Decay	-bionts	Living organism	Saprobiont	Living organisms that cause decay
Nitro-	Contains nitro group	-bacter	Bacteria	<i>Nitrobacter</i>	nitrifying bacteria that oxidise nitrite ions (NO_2^-) to nitrate ions (NO_3^-)

Step 6.

Look at the text on **decomposition**.

Find the example words **decompose, saprobiont, Nitrobacter**.

You can **use prefixes** to help you decode the meaning of other new scientific words.

Step 7.

Describe everything you now know about **decomposition** to a study partner.

Text on Decomposition

Microbial saprobionts (bacteria and fungi) recycle nitrogen back into the soil.

- They decompose dead organisms and waste organic material such as manure from egestion, and urine from excretion.

There are two stages. Both stages are extracellular digestion

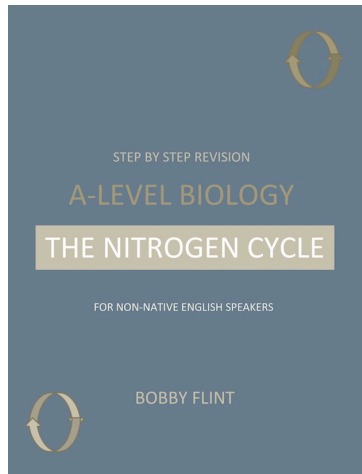
Extracellular digestion:
Saprobionts secrete protease enzymes

proteins in dead organic material → **amino acids**

Extracellular digestion:
Saprobionts secrete deaminase enzymes— remove amino group (—NH₂)

amino acids → **ammonium ions (NH₄⁺)**

Saprobionts use the remaining carbon and oxygen for respiration.



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