

- Can go to plants, Nitrifying Bacteria 1 or denitrifying bacteria

- Can go to plants, Nitrifying Bacteria 1 or denitrifying bacteria

- Can go to plants, Nitrifying Bacteria 1 or denitrifying bacteria

- Can go to plants, Nitrifying Bacteria 1 or denitrifying bacteria

- Can go to plants, Nitrifying Bacteria 1 or denitrifying bacteria

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

Nitrite (NO₂)

- Find the nitrifying bacteria 2 (nitrobacter)
- You must become a Nitrate (NO_3)

Water (H₂O)

Water (H₂O)

Water (H₂O)

Water (H₂O)

Water (H₂O)

Water (H₂O)

Water (H₂O)

Water (H₂O)

Water (H₂O)

Water (H₂O)

Water (H₂O)

Water (H₂O)

Water (H₂O)

Water (H₂O)

Water (H₂O)

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

- **Say:** *I assist Ammonium and Nitrates where they need to go. Kind of like Uber.*

Plants

Plants

Plants

Plants

Plants

Plants

Plants

Plants

Plants

Plants

Plants

Plants

Plants

Plants

Plants

- You are stationary.
- May uptake NH_4^+ or NO_3
- Take an NH_4^+ or NO_3 card and hold it (immobilization) only if in the presence of water.
- **Say:** *I use Ammonium (NH_4^+) or Nitrates (NO_3^-) to grow. Thank you! Nitrogen is now stuck here until I decompose.*

- You are stationary.
- May uptake NH_4^+ or NO_3
- Take an NH_4^+ or NO_3 card and hold it (immobilization) only if in the presence of water.
- **Say:** *I use Ammonium (NH_4^+) or Nitrates (NO_3^-) to grow. Thank you! Nitrogen is now stuck here until I decompose.*

- You are stationary.
- May uptake NH_4^+ or NO_3^-
- Take an NH_4^+ or NO_3^- card and hold it (immobilization) only if in the presence of water.
- **Say:** *I use Ammonium (NH_4^+) or Nitrates (NO_3^-) to grow. Thank you! Nitrogen is now stuck here until I decompose.*

- You are stationary.
- May uptake NH_4^+ or NO_3
- Take an NH_4^+ or NO_3 card and hold it (immobilization) only if in the presence of water.
- **Say:** *I use Ammonium (NH_4^+) or Nitrates (NO_3^-) to grow. Thank you! Nitrogen is now stuck here until I decompose.*

- You are stationary.
- May uptake NH_4^+ or NO_3
- Take an NH_4^+ or NO_3 card and hold it (immobilization) only if in the presence of water.
- **Say:** *I use Ammonium (NH_4^+) or Nitrates (NO_3^-) to grow. Thank you! Nitrogen is now stuck here until I decompose.*

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

**Atmospheric
Nitrogen (N₂)**

- **Say:** *I just got out of the cycle. I am just hanging out up here waiting for a legume plant or some lightning to fix me to something.*
- Go to a nitrogen-fixing bacteria to get back in the cycle.

- **Say:** *I just got out of the cycle. I am just hanging out up here waiting for a legume plant or some lightning to fix me to something.*
- Go to a nitrogen-fixing bacteria to get back in the cycle.

- **Say:** *I just got out of the cycle. I am just hanging out up here waiting for a legume plant or some lightning to fix me to something.*
- Go to a nitrogen-fixing bacteria to get back in the cycle.

- **Say:** *I just got out of the cycle. I am just hanging out up here waiting for a legume plant or some lightning to fix me to something.*
- Go to a nitrogen-fixing bacteria to get back in the cycle.

- **Say:** *I just got out of the cycle. I am just hanging out up here waiting for a legume plant or some lightning to fix me to something.*
- Go to a nitrogen-fixing bacteria to get back in the cycle.

**Nitrogen-fixing bacteria
(Free-living or
rhizobia/cyanobacteria)**

- Change N₂ into NH₄⁺
- Take an N₂ card and give an NH₄⁺ card

**Nitrogen-fixing bacteria
(Free-living or
rhizobia/cyanobacteria)**

- Change N₂ into NH₄⁺
- Take an N₂ card and give an NH₄⁺ card

**Nitrogen-fixing bacteria
(Free-living or
rhizobia/cyanobacteria)**

- Change N₂ into NH₄⁺
- Take an N₂ card and give an NH₄⁺ card

**Nitrogen-fixing bacteria
(Free-living or
rhizobia/cyanobacteria)**

- Change N₂ into NH₄⁺
- Take an N₂ card and give an NH₄⁺ card

**Nitrogen-fixing bacteria
(Free-living or
rhizobia/cyanobacteria)**

- Change N₂ into NH₄⁺
- Take an N₂ card and give an NH₄⁺ card

**Nitrogen-fixing bacteria
(Free-living or
rhizobia/cyanobacteria)**

- Change N₂ into NH₄⁺
- Take an N₂ card and give an NH₄⁺ card

- You are stationary.
- **Say:** I remove Nitrogen from the atmosphere and change it into Ammonium (NH_4^+)

- You are stationary.
- **Say:** I remove Nitrogen from the atmosphere and change it into Ammonium (NH_4^+)

- You are stationary.
- **Say:** I remove Nitrogen from the atmosphere and change it into Ammonium (NH_4^+)

- You are stationary.
- **Say:** I remove Nitrogen from the atmosphere and change it into Ammonium (NH_4^+)

- You are stationary.
- **Say:** I remove Nitrogen from the atmosphere and change it into Ammonium (NH_4^+)

- You are stationary.
- **Say:** I remove Nitrogen from the atmosphere and change it into Ammonium (NH_4^+)

Nitrifying bacteria 1 (Nitrosomonas)

- Change NH_4^+ into NO_2
- Take a NH_4^+ card and give an NO_2 card

Nitrifying bacteria 1 (Nitrosomonas)

- Change NH_4^+ into NO_2
- Take a NH_4^+ card and give an NO_2 card

Nitrifying bacteria 1 (Nitrosomonas)

- Change NH_4^+ into NO_2
- Take a NH_4^+ card and give an NO_2 card

Nitrifying bacteria 1 (Nitrosomonas)

- Change NH_4^+ into NO_2
- Take a NH_4^+ card and give an NO_2 card

Nitrifying bacteria 1 (Nitrosomonas)

- Change NH_4^+ into NO_2
- Take a NH_4^+ card and give an NO_2 card

Nitrifying bacteria 1 (Nitrosomonas)

- Change NH_4^+ into NO_2
- Take a NH_4^+ card and give an NO_2 card

- You are stationary.
- **Say:** I convert Ammonium (NH_4^+) into Nitrous Oxide (NO_2)

- You are stationary.
- **Say:** I convert Ammonium (NH_4^+) into Nitrous Oxide (NO_2)

- You are stationary.
- **Say:** I convert Ammonium (NH_4^+) into Nitrous Oxide (NO_2)

- You are stationary.
- **Say:** I convert Ammonium (NH_4^+) into Nitrous Oxide (NO_2)

- You are stationary.
- **Say:** I convert Ammonium (NH_4^+) into Nitrous Oxide (NO_2)

- You are stationary.
- **Say:** I convert Ammonium (NH_4^+) into Nitrous Oxide (NO_2)

Denitrifying bacteria

- Change NH_4^+ , NO_2 and NO_3 back into N_2
- Take any N__ card and give an N₂ card

Denitrifying bacteria

- Change NH_4^+ , NO_2 and NO_3 back into N_2
- Take any N__ card and give an N₂ card

Denitrifying bacteria

- Change NH_4^+ , NO_2 and NO_3 back into N_2
- Take any N__ card and give an N₂ card

Denitrifying bacteria

- Change NH_4^+ , NO_2 and NO_3 back into N_2
- Take any N__ card and give an N₂ card

Denitrifying bacteria

- Change NH_4^+ , NO_2 and NO_3 back into N_2
- Take any N__ card and give an N₂ card

Denitrifying bacteria

- Change NH_4^+ , NO_2 and NO_3 back into N_2
- Take any N__ card and give an N₂ card

- | | | |
|--|--|--|
| <ul style="list-style-type: none">• You are stationary.• Say: <i>I release Nitrogen back into the atmosphere</i> | <ul style="list-style-type: none">• You are stationary.• Say: <i>I release Nitrogen back into the atmosphere</i> | <ul style="list-style-type: none">• You are stationary.• Say: <i>I release Nitrogen back into the atmosphere</i> |
| <ul style="list-style-type: none">• You are stationary.• Say: <i>I release Nitrogen back into the atmosphere</i> | <ul style="list-style-type: none">• You are stationary.• Say: <i>I release Nitrogen back into the atmosphere</i> | <ul style="list-style-type: none">• You are stationary.• Say: <i>I release Nitrogen back into the atmosphere</i> |
| <ul style="list-style-type: none">• You are stationary.• Say: <i>I release Nitrogen back into the atmosphere</i> | <ul style="list-style-type: none">• You are stationary.• Say: <i>I release Nitrogen back into the atmosphere</i> | <ul style="list-style-type: none">• You are stationary.• Say: <i>I release Nitrogen back into the atmosphere</i> |