

NITROGEN CYCLE

Nitrogen is an essential element in the air. It ensures the survival of living things.

1. Match the following to complete the sentences.

SORT ELEMENTS

- proteins.
- ammonia
- atmospheric nitrogen

This cannot be used directly by plants and animals.

The roots of plant rhizobium bacterium convert nitrogen to

Plants take nitrates to make

2. What percent of the air is nitrogen?

☐ 95%

☐ 78%

☐ 51%

3. Match the following terms to the statements.

SORT ELEMENTS

- nitrites and nitrates.
- nitrogen-fixing bacteria.
- atmosphere.
- proteins.
- ammonia

Animals and plants cannot directly use all the nitrogen found in our _____.

Only special bacteria can directly use nitrogen in our atmosphere and "fix" it so other organisms can benefit. These bacteria are called _____.

Nitrogen is "fixed" so that it can be absorbed by living things and used to make _____.

At the roots of plants, bacteria convert nitrogen to _____.

Nitrifying bacteria convert ammonia to _____.

4. Nitrogen returns to the soil as ammonia through:

- ☐ hibernating animals
- ☐ runoff water
- ☐ animal droppings and urine
- ☐ leaves of plants

5. Nitrogen fixation can also occur by _____.

- ☐ human intervention
- ☐ lightning strikes
- ☐ thunder
- ☐ heavy rainfalls

6. How do plants and animals get nitrogen if not from the atmosphere?

Complete the answer below by adding the correct terms.

Plants get nitrogen from the _____ Bacteria found in
the _____ nodules of certain plants and legumes convert
_____ in the soil to _____ which can then be converted to
_____ and then _____.