

# Nitrogen Cycle Web Quest

Go to: <http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/N/NitrogenCycle.html> and answer these questions.

1. What percentage of the air we breathe is nitrogen?
2. Even though considerable nitrogen is available in the air, most plants do not use the nitrogen ( $N_2$ ) found in the air. Why not?
3. In what compounds can plants use nitrogen?
4. How do animals get the nitrogen they need?
5. Atmospheric nitrogen ( $N_2$ ) is pretty inert. This means that it does not easily break apart. When molecules do not break apart easily, it is difficult (or impossible) for organisms to use them as a nutrient source. As a result, **nitrogen fixation** is the term used to describe the process of breaking up  $N_2$ .
  - a. What is atmospheric fixation?
  - b. What is industrial fixation? [This is how artificial fertilizers are made.]
  - c. What is biological fixation? (In your answer, describe the types of plants associated with the symbiotic relationship.)

Go to: <http://www.physicalgeography.net/fundamentals/9s.html> and answer these questions.

10. Why is nitrogen needed by plants and animals?