Very abundant in air, yet life is usually unable to make good use of the N_2 in our atmosphere. This is because the strong triple bonds holding N_2 together require lots of energy to break.

Bacteria (those able to process nitrogen known as ”diazotrophs”) needs to convert it to ammonia, which plants can use to construct amino acids. Plants then produce the necessary byproducts for animals to make use of nitrogen. Diazotrophs can become symbiotic with plants and this benefical relationship leads to the plant having more protein (as opposed to other plants relying on free-living diazotrophs).

Nitrogen plays a big role in macromolecules - its found in each amino acid, each nucleic acid (in the base).

Nitrogenase is the enzyme responsible for reducing N_2 to ammonia.