# **Availability of Oxygen for Plants and Animals**

How Does Oxygen Become Available to Animals and Plants Living in Water and Soil?

#### **In Plants**

Plants have tiny pores called stomata, found on the underside of a leaf.

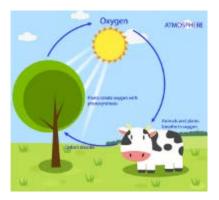
Air containing carbon dioxide and oxygen enters the plant through these openings where it gets used in photosynthesis and respiration.



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#### In animals

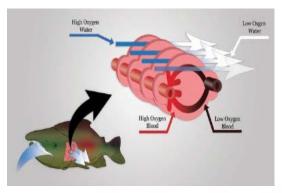
All animals need to respire, be it a cockroach, a fish, or an elephant. It is just that they use different organs and mechanisms for respiration.



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### In Aquatic Animals and Plants

Most aquatic animals like fish, tadpoles, crabs, and shrimp have special organs for respiration called gills. Gills help to take in oxygen and give out carbon dioxide. Some aquatic animals like dolphins and whales come to the surface of the water regularly to take in air, since they breathe with the help of the lungs. Aquatic plants like Hydrilla also breathe in oxygen dissolved in water through their stomata.



## In Amphibians

Amphibians like frogs, newts, and salamanders need breathing systems for both air and water. Crocodiles and alligators swim through the water with part of their snout above the water surface to breathe easily through nostrils.



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### In Birds

Birds have an efficient respiratory system as they need high levels of oxygen during flight. Birds have a pair of lungs with air sacs that remain open all the time so that air can easily pass through them.

Lungs

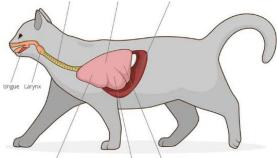
Cervical Interclavicular

Abdominal

Posterior \_ thoracic sac



Most mammals breathe with the help of lungs. They take in oxygen and give out carbon dioxide.



thoracic sac

## **Balance of Oxygen in the Atmosphere**

It is common knowledge that humans and animals can't survive without plants because they produce oxygen via photosynthesis. The balance of oxygen in the environment is thus maintained through the respiratory processes of plants and animals.