

OVERVIEW

Reproduction: The Basis of Evolution

Life on Earth has now existed for 4 billion years. It is reproduction that has made the continuation of life possible over such a long period of time.

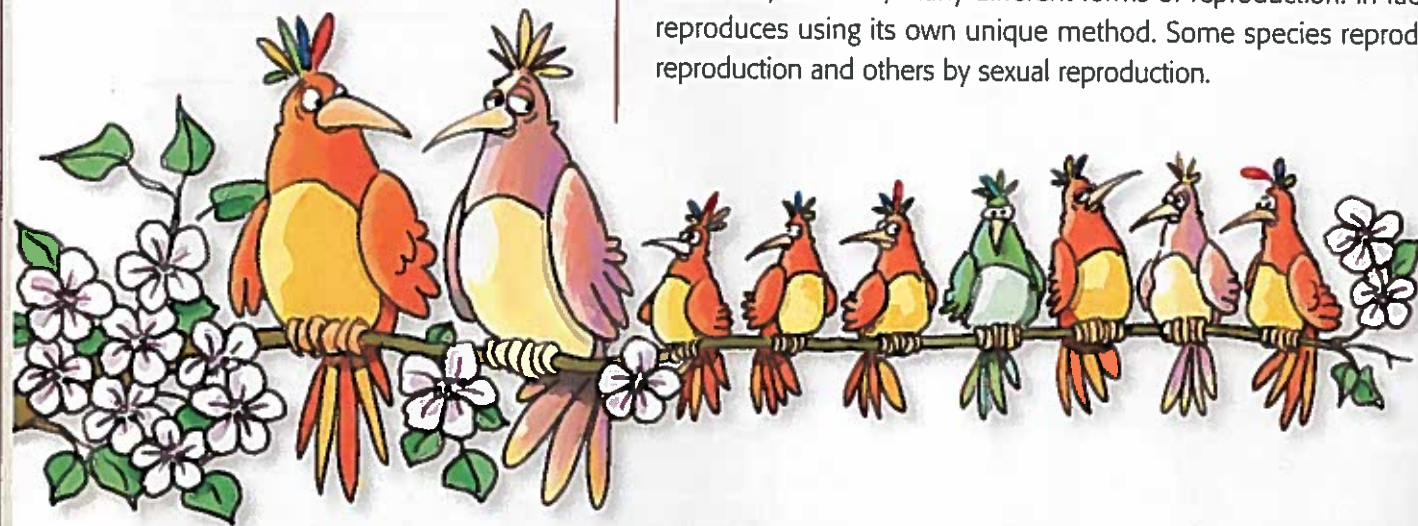
In the first part of this section, you will discover that organisms can reproduce asexually or sexually. You will then learn about plant and animal reproduction. You will become familiar with the reproductive organs and the stages of development of various organisms.

Next, you will learn more about human reproduction. You will explore pregnancy and the stages of human development. Humans are the only living organisms who have the ability to control certain aspects of their own reproduction. You will discover the various methods of birth control. There are also some health risks involved in having a sexual relationship. You will therefore also read about sexually transmitted diseases (STDs).

Asexual and Sexual Reproduction

Reproduction ensures the survival of species. Although the life span of an individual is actually relatively short, successful reproduction can guarantee the existence and evolution of a species over millions of years.

There are, however, many different forms of reproduction. In fact, each species reproduces using its own unique method. Some species reproduce by asexual reproduction and others by sexual reproduction.



Asexual reproduction requires the involvement of only one living organism. It does not depend on the presence of male and female parts. This form of reproduction produces offspring that are identical to their parent. Parent and offspring therefore share the same genetic material, or physical and behavioural characteristics. The species can nevertheless continue to evolve by genetic mutation.

Sexual reproduction requires the involvement of a male and a female parent. Although offspring share many similarities with their parents, they each possess a unique genetic makeup consisting of a combination of genes from both parents.