

**Encyclopaedia  
of Plants, Fungi  
and Lichens**  
for Young Readers

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# Palms

Palms, too, are woody plants. They are widespread in tropical and subtropical regions all over the world. Most palms have a simple slender trunk without branches, topped with a tuft of leaves. The trunk bears scars where leaves have fallen. Many palms have important uses; not only are they a source of food, they serve as building materials, and they are highly decorative too.

## Oil palm

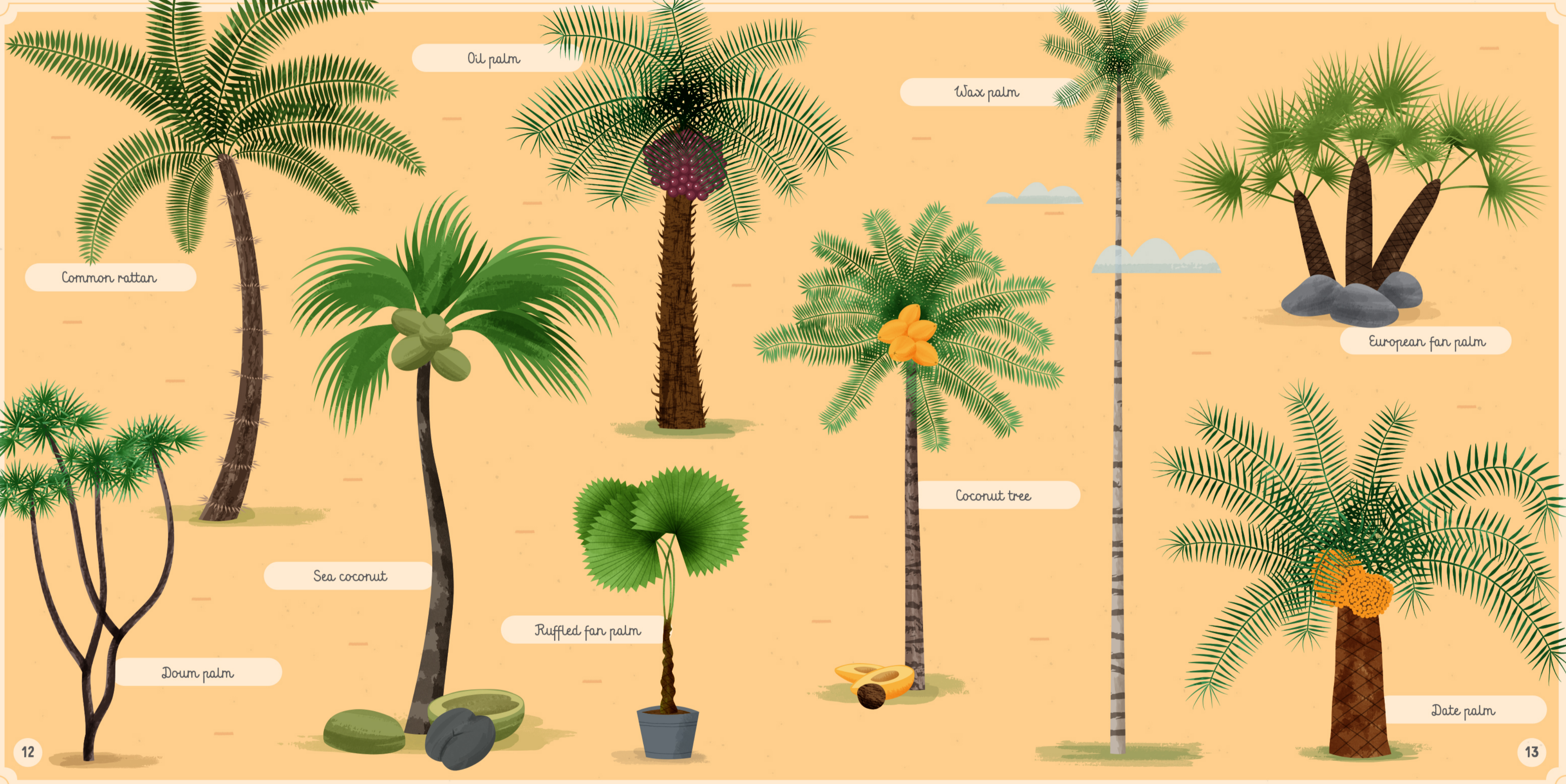
The fruit of the oil palm is a rich source of vegetable oil. But the felling of primeval forests to make way for the plantations on which it is grown has a negative effect on the local environment.

## Wax palm

The world's tallest palm grows mainly in the misty mountain forests of Colombia. Its strikingly slender trunk has distinctive leaf scars around it and is covered in a layer of wax.

## European fan palm

This fan palm is the only indigenous palm species in Europe. In most cases it forms several stems, giving it a shrub-like character. Its leaves produce a fibre that is used in the making of mats, sacking, baskets.



## Common rattan

The rattan has the longest known stem of all plants. This palm and several similar species are used in the production of rattan furniture. Most rattan palms are climbing plants with a prickly stem.

## Doum palm

We encounter the doum palm in much of Africa, including Egypt. Unlike most other palms, its trunk branches dichotomously. Its fruit has been discovered in tombs of Egyptian pharaohs.

## Sea coconut

This palm has the largest seed in the plant kingdom; it weighs up to twenty kilograms. Unlike the coconut, it does not float, which explains why the species has never spread beyond its original home, the Seychelles Islands.

## Ruffled fan palm

The fan palm boasts beautiful fronds. It grows to be up to three metres tall. It occurs naturally in the undergrowth of rainforests, in places where the temperature and humidity are high all year round.

## Coconut tree

In shops, we find only the seed of the coconut, stripped of the fibrous pericarp that allows it to float on water. Thanks to this ability, it has travelled great distances, so taking root on different islands and continents.

## Date palm

This palm is often found in oases. The date, its fruit, is more than just popular: it is a staple food in North Africa and the Middle East. Dates are eaten dried as well as fresh. Palm cabbage is prepared from the palm's young leaves.



# Aquatic and marsh plants

To survive, they need to grow in or near water. Most aquatic plants are rooted firmly in the bed of a body of water, with their leaves and flowers on the surface. But floating plants have all their parts, including the roots, on the surface, while other plants are entirely submerged in water. In places of high humidity, marsh plants are able to live out of water, too.

## Victoria amazonica

The world's largest water lily, whose huge leaves could hold a baby. It flowers at night for a short time only. On the first evening, its flowers are white. The next evening, the flowers are pink. And it is for the last time!

## Yellow water lily

Although its thick rhizome wallows in the mud, its large leaves and little yellow flowers float on top of the water.

## Marsh calla

It grows in woodland pools, muddy, shallow waters and marshes. Its interesting white flowers give way to bright red berries.



Water caltrop

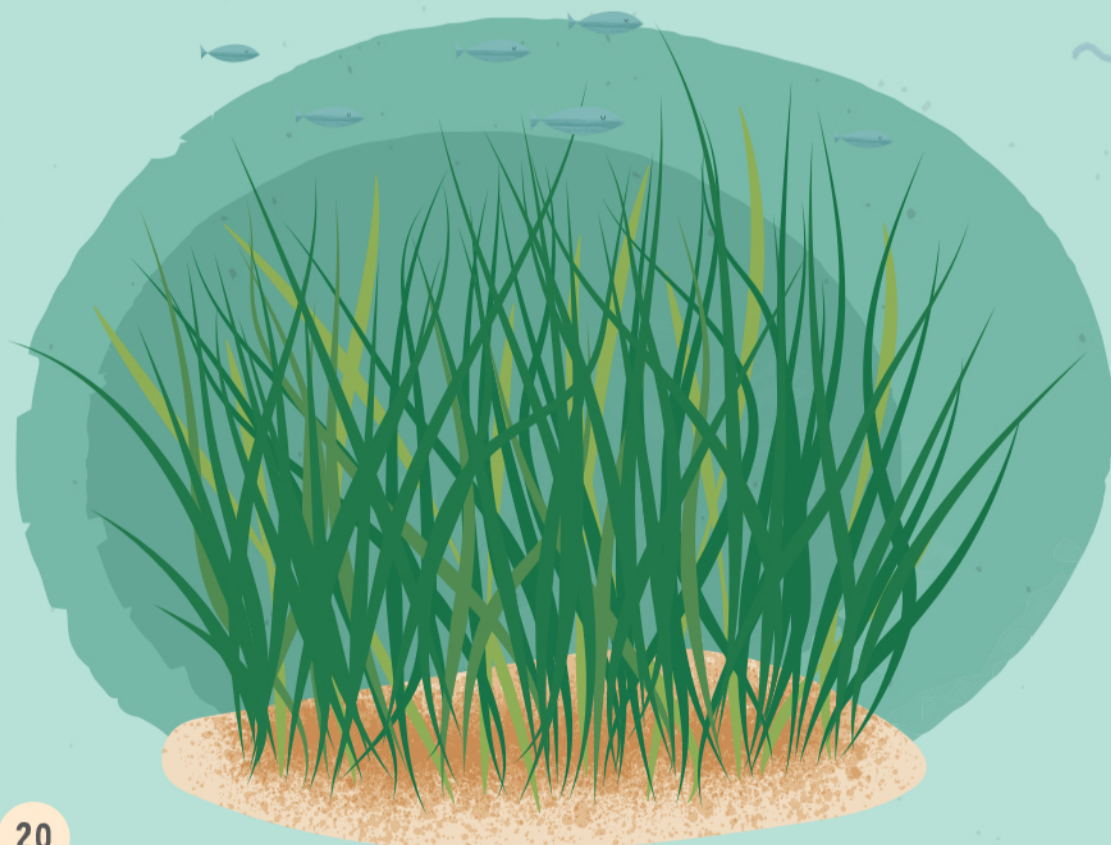


Common water hyacinth



Victoria amazonica

Common eelgrass



Indian lotus



Yellow water lily



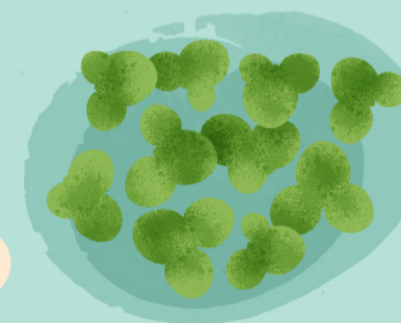
Marsh calla



Broadleaf cattail



Lesser duckweed



## Water caltrop

Leaves remain small until the germinating plant reaches the surface; when this happens, the small leaves fall, to be replaced by larger leaves arranged on the water in a rosette shape. Its fruit is an edible 'horned' nut.

## Common water hyacinth

Although the purplish flower of the water hyacinth is beautiful, the plant itself causes lots of problems. It reproduces very quickly to form a dense cover over calm water, causing complications for shipping, for instance.

## Common eelgrass

One of the so-called seagrasses, this marine flowering plant is forever underwater. These grasses form great underwater meadows for turtles and other creatures to graze on.

## Indian lotus

Seated on long stems, its flowers stick out of the water. Its leaves are coated in wax, so that rain falls from them very quickly, carrying away all dirt.

## Lesser duckweed

This floating plant, which looks like little green flakes, grows abundantly in ponds. It spreads to form a green carpet over water.

## Broadleaf cattail

Often grows on the banks of ponds, marshes and other bodies of water. Its brown inflorescence may remind us of a cigar.



# Fruit crops

Most fruit crops are woody plants – i.e. trees and shrubs (bushes). In most cases, their fruit is sweet (the lemon, which is tart, is a notable exception). Fruit is a source of vitamins, minerals and substances that are good for the human body. One warning, though: fruit also contains a lot of sugar. Although this sugar is natural, too much of it is not good for us.

## ☀️ Pomegranate

The branches of this shrub or small tree are sometimes thorny. Its flowers are a striking red and its fruit is leathery. In its sweet yet tart flesh there are a great many seeds, which look like gemstones.

## ☀️ Apricot

Having originated in China, the apricot tree has spread all over the world – even into space, when US astronauts took its fruit, in dried form, on an expedition. This fruit is exceptionally rich in substances that are good for our health.

## ☀️ Blackberry

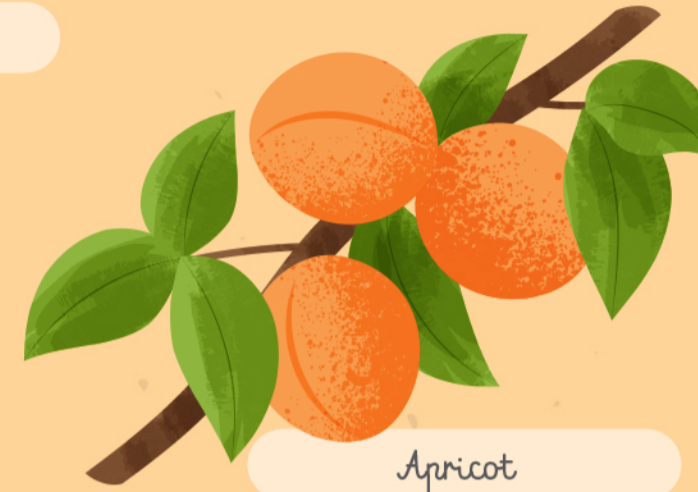
The thorny stems of this bush can give us a nasty scratch. But when we are walking in the country, its black berries provide us with welcome refreshment. Its leaves can be used to make tea.



Banana plant



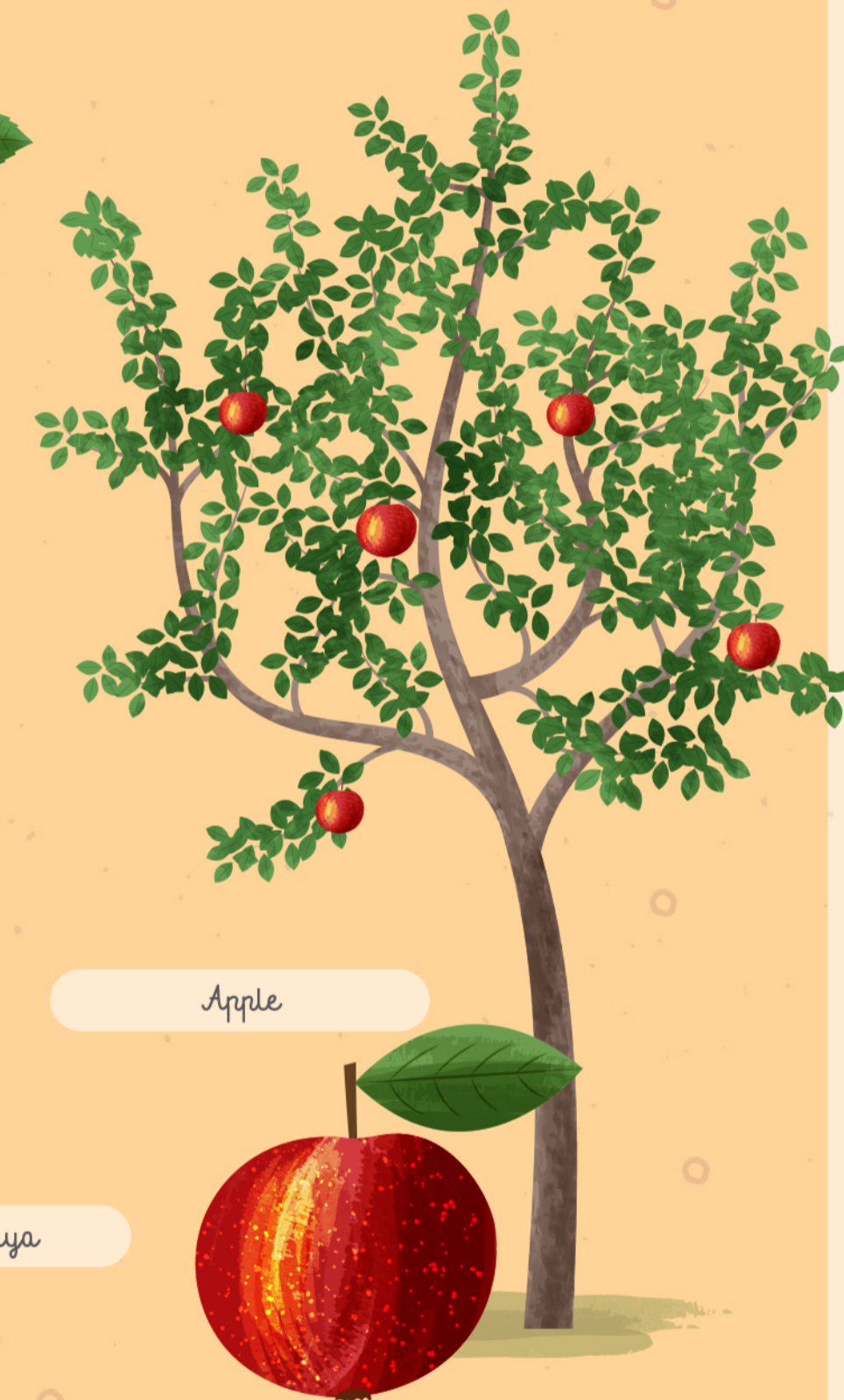
Pomegranate



Apricot



Blackberry



Apple



Carica papaya



Pineapple



Wild strawberry



Actinidia chinensis

## ☀️ Banana plant

The banana plant may look like a tree, but it is the world's largest herb, not a woody plant. Bananas are harvested before they ripen; they are then left to ripen in special rooms.

## ☀️ Actinidia chinensis

We know the hairy brown fruit and green flesh of Actinidia chinensis as the kiwi fruit. It is high in vitamin C. This fruit's name refers to a bird from New Zealand called the kiwi, which it somewhat resembles.

## ☀️ Wild strawberry

Wild strawberries are one of the most popular fruits all over the world. Although smaller than the strawberries grown in gardens, they have a more intense taste and smell. What's more, their roots, leaves and fruits are medicinal.

## ☀️ Pineapple

The leaves of the pineapple are long and tough, their jagged edges sharp as a saw. They are arranged in a rosette, at whose centre the fruit forms after flowering.

## ☀️ Carica papaya

This herb can be 10 metres tall, with fruit weighing up to 10 kilos. It looks rather like a palm. We eat its sweet, juicy flesh. Its small seeds have a sharp, spicy taste and are used as a pepper substitute.

## ☀️ Apple

Because of its fruit, this is one of the most commonly cultivated and popular fruit trees in the Temperate Zone. Did you know that apples float? Well, they do – owing to the fact that they are one-quarter air.



# Edible mushrooms

*Edible mushrooms are an excellent food. We can fry, roast or pickle them, and we can add them to soups and sauces. Although most edible mushrooms are found in the wild, some, such as the champignon and the oyster mushroom, are artificially grown.*

## Common morel

The morel boasts a brownish cap with deep, irregular pits that often house insects or small animals.

## Chanterelle

Lovers of mushroom delicacies can be glad that this beautiful, tasty, yellowy-orange mushroom is rarely eaten by worms. It grows among bilberries, moss and tall grass in coniferous forests.

## Common puffball

Although many puffballs are similar in shape, none but the common puffball has on its surface cone-shaped warts that can be easily rubbed off. If you press a ripe common puffball, it will send out a cloud of spores.

Pearl oyster mushroom

Common morel

Chanterelle

Common puffball

Truffle

Parasol mushroom

Summer cep

Orange birch bolete

Cauliflower fungus

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## • Pearl oyster mushroom

It grows in large clumps on stumps and trunks of deciduous trees. It is also grown in straw-filled sacks and on blocks of wood. It contains many health-promoting substances.

## • Truffle

One of the most expensive foods in the world. It can be found as far as 30 centimetres below the ground. Trained dogs and pigs are used to find it: their sense of smell is more sensitive than a human's.

## • Summer cep

One of the most sought-after mushrooms among mushroom pickers. Its cap of various shades of brown sits atop a tubby stipe. It grows in deciduous woodland after heavy rain.

## • Orange birch bolete

The orange birch bolete likes to keep the birch tree company: we often find them next to each other. It has a yellow-orange cap and a white stipe dotted with small black scales.

## • Parasol mushroom

The cap has a scaly surface with a small brown bump in the middle. We find parasol mushrooms most commonly in tall grass, at the wayside and on the edge of woodland.

## • Cauliflower fungus

This large mushroom is made up of curly lobes that twist this way and that. At first, its colour is light; over time, it changes from yellow to brown. It is found most commonly under a pine tree.





A vast number of plants grow on this Earth of ours, from the smallest flowers to giant trees. And there are fungi and lichens too. Thanks to this encyclopaedia, you will get to know a few hundred of the best known and most interesting, from all over the world. What's more, this book will show you groups in which plants, fungi and lichens can be classified. It will introduce you to mysterious lichens, edible and inedible mushrooms (as well as poisonous ones), and flowering and non-flowering plants; you will also learn about trees, bushes and herbs from all corners of the globe. With its magnificent full-colour illustrations and simple explanations, this book is not only useful, it is an essential learning companion for young readers.

