



How plants survive

If a plant is to get through its life cycle, it has to have ways of staying alive and getting its seeds to thrive.

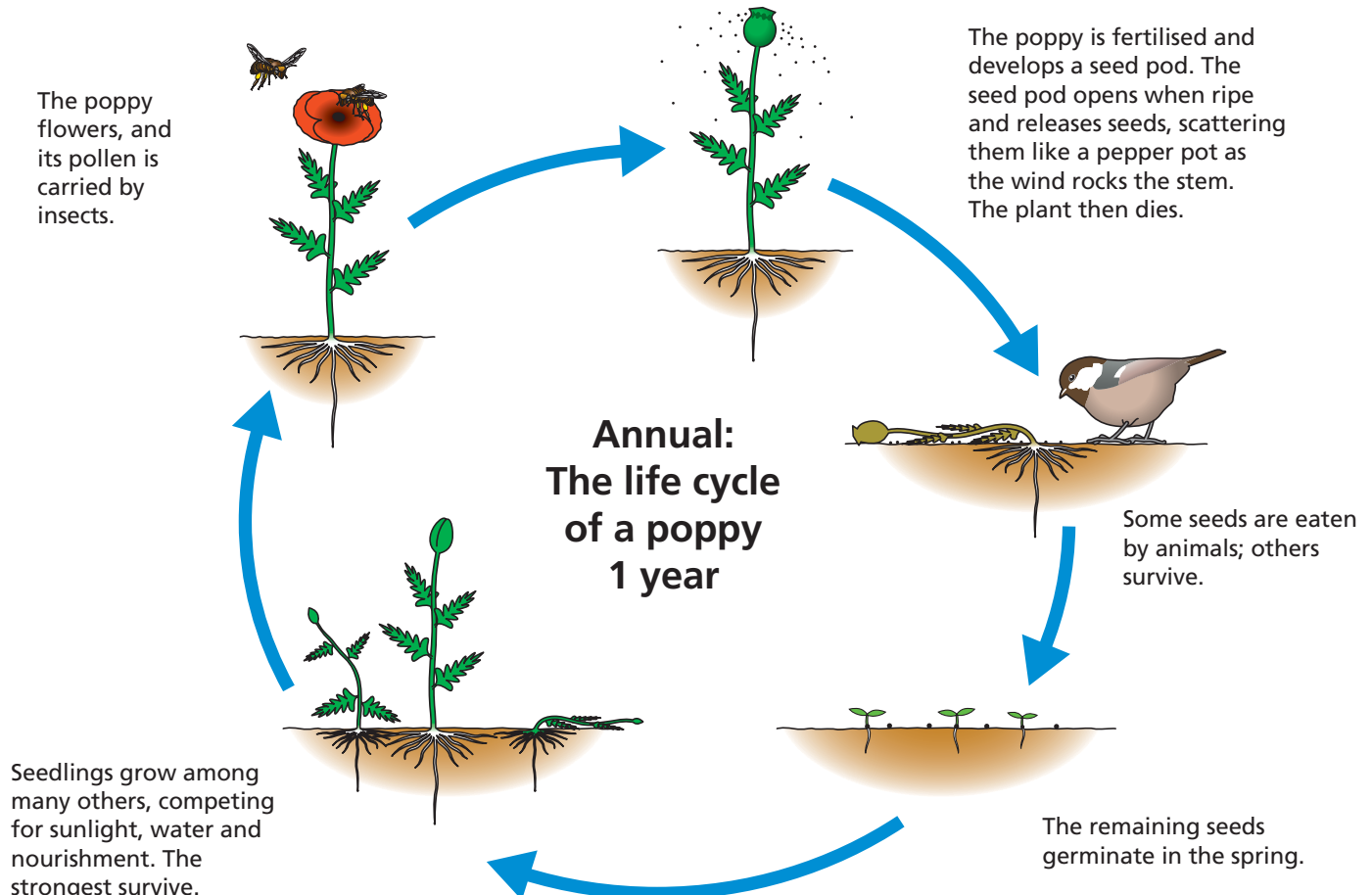
All living things survive over time only if they can stay alive long enough to produce at least one offspring to replace each adult.

This is not as easy as it sounds. Many things can prevent a plant from producing seeds, or destroy the seeds.

Short life (annual plant)

The poppy is an example of a plant that completes its entire life cycle in one year (Picture 1). It therefore has just one chance of successfully producing a new generation. How does it do this? By producing as many seeds in a year as a long-lived plant may produce in a century. The tiny black seeds that are crammed into the seed pod are shaken out after the seed pod opens, so they are scattered away from the parent plant.

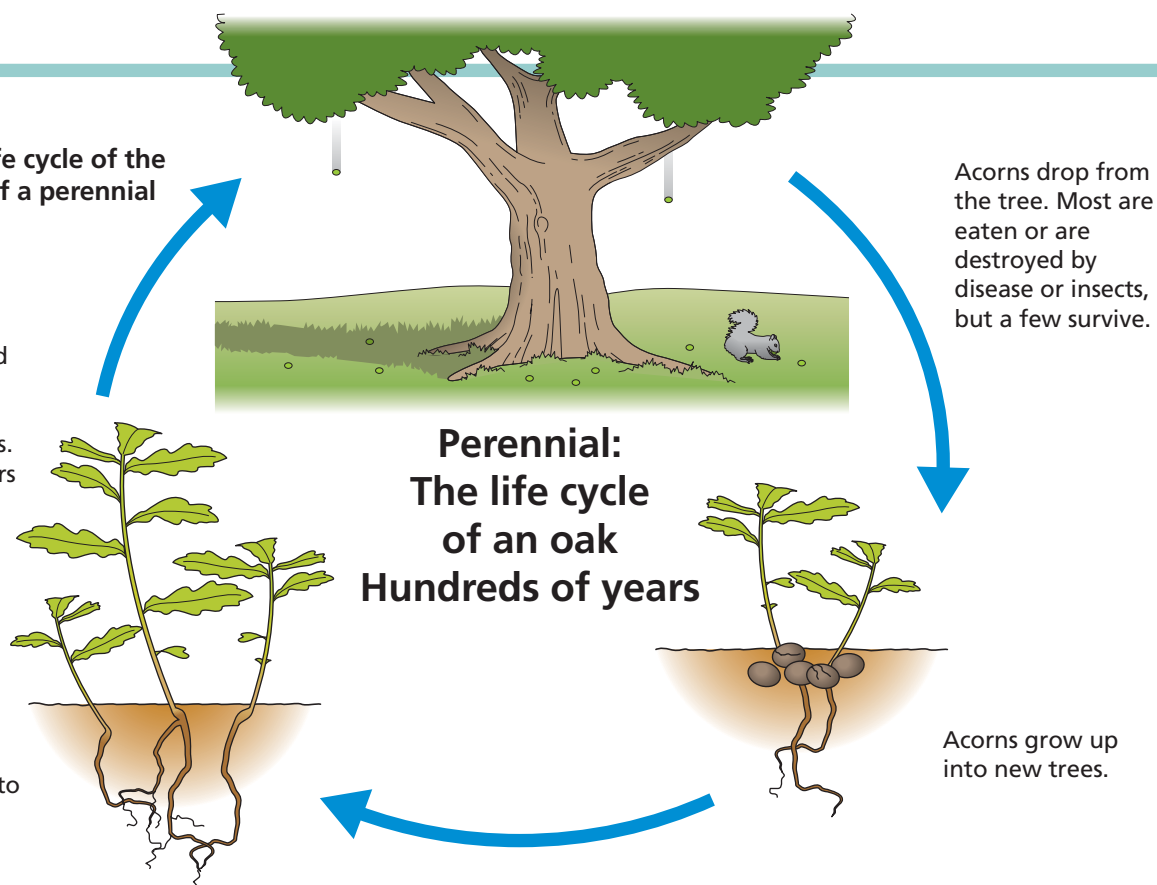
▼ (Picture 1) This is the life cycle of the poppy. It is typical of many short-lived flowering plants.



► (Picture 2) The life cycle of the oak is an example of a perennial flowering plant.

Oak trees use the wind to share pollen, but use birds and animals to help disperse acorns. After hundreds of years the tree finally dies.

Many seedlings are eaten by animals or insects. The ones that survive grow slowly into mature trees.



When the following spring comes, those seeds that have survived will grow swiftly, flowering and setting seed within just a few short weeks.

Long life (perennial plant)

A perennial has a life cycle stretching over many years (Picture 2). An oak tree, for example, produces acorns each year for hundreds of years. What is all this for? Just to make sure that at least one more tree grows up.

The acorns of the oak tree grow best if they can be buried in the ground. Acorns are large, **NUTRITIOUS** seeds that many animals like to eat. Squirrels and other animals carry the acorns away to bury in the ground as a store of food to be dug up during winter. If only one of these is not

dug up, then a seedling can grow.

But this is not the end of the story. Many seedlings will be eaten by animals like deer. Some will be attacked by caterpillars and all of their leaves will be eaten away. Even when the few seedlings that survive have grown up, it will be many years before they can produce acorns. In the meanwhile, they may be struck by lightning, or suffer some disease.

That is why each mature tree must continue to produce huge numbers of acorns every year.

Summary

- Plants have many ways of making sure their seeds survive.
- Most plants have to produce many seeds to ensure just one survives.