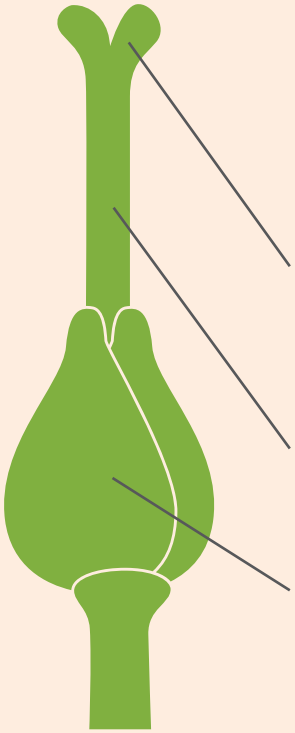
Parts of a flower Page 1

The flower of a plant is not just there to make our gardens and the countryside look pretty; they play an important function in enabling the plant to reproduce (to make new plants).

The flowering part of a plant also gives fruit, therefore understanding the parts of a flower is important for farmers and horticulturalists.

Parts of a flower Page 2



PISTIL

Female parts of the flower

Pistil

The female reproductive part of a flower is called the pistil. This is also known as the carpel. Pistil or carpel contains 3 parts:

Stigma

The stigma contains a sticky substance. Its job is to catch the pollen grains. These pollen grains can stick to stigma.

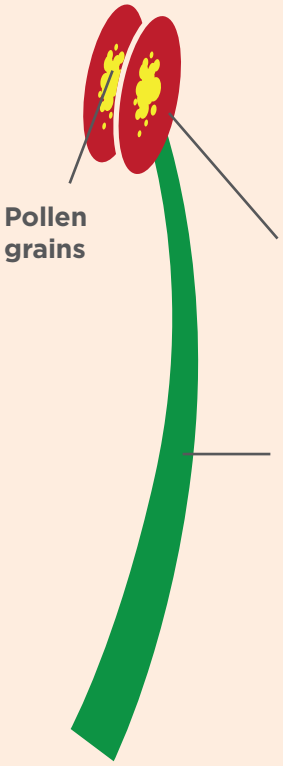
Style

The style is the stalk-like thing that holds up the stigma.

Ovary

Ovary holds ‘ovules’ or eggs. Ovules produce female sex cells.

After fertilisation the ovules become the seeds. The ovary becomes the fruit.



STAMEN

Male parts of a flower

Stamen

Stamen is the male reproductive part of a flower. Stamen contains two parts:

Anther

Anther holds a yellow dust called pollen grains. Each pollen grain has a male sex cell.

Filament

Filament holds up the anther.

Parts of a flower Page 3

Petals

Petals are often very brightly coloured. This is because their main job is to attract insects, such as bees or butterflies, into the flower. These insects pick up pollen from the flower and carry it to the next flower they visit. This is how most flowers get pollinated.

Sepals

Sepals are special types of leaves that form a ring around the petals. Their job is to protect the flower while it is still a bud. After the flower has opened, the sepals can still be seen behind the petals. Sepals are usually green or brown, although in some plants they are the same colour as the petals.

Insects and bees help plants to reproduce

Insects visit flowers to drink their nectar, picking up pollen which they then carry to another plant. If pollen is able to travel from a plant to another plant of the same species then that plant will be able to make seeds and reproduce.

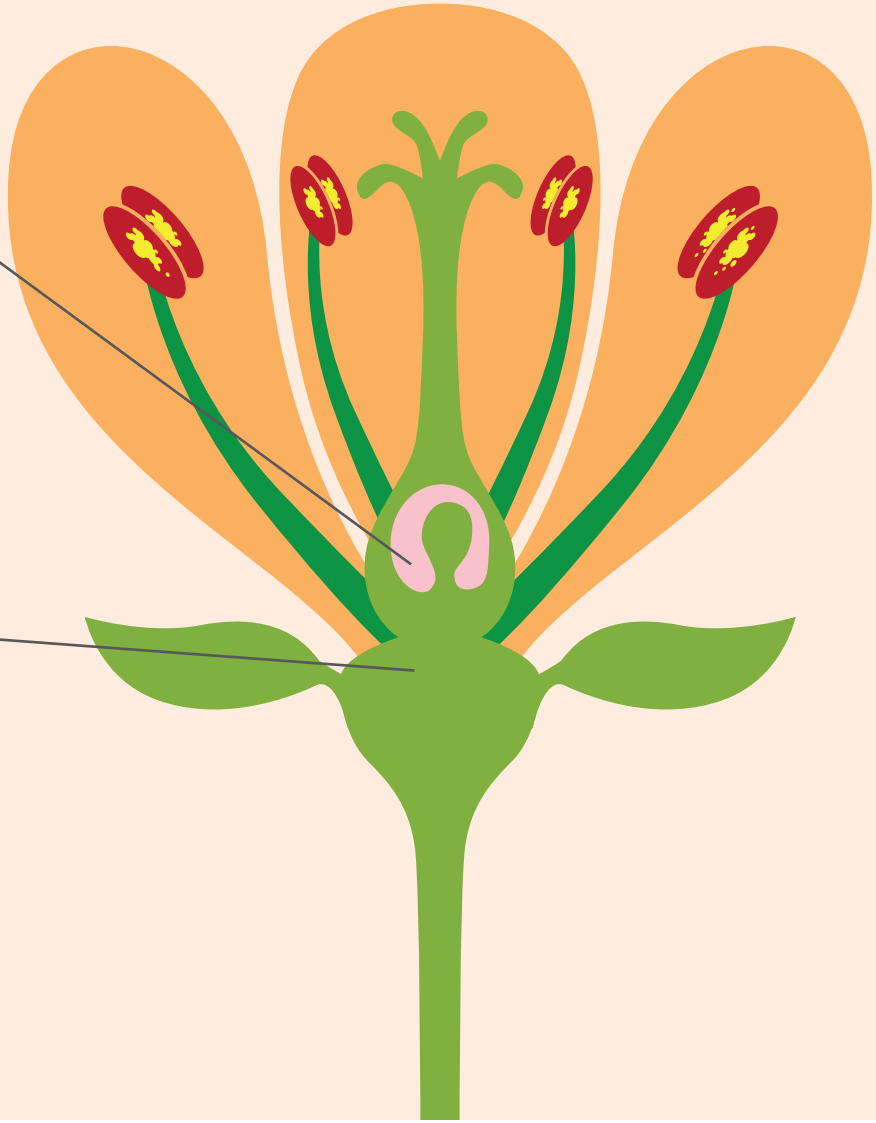
Parts of a flower Page 4

Nectaries

The nectaries make nectar in the flower. Nectar is a sweet substance, which insects drink to give them energy. Bees also use nectar to make honey. The nectaries are usually right in the centre of the flower. This means the insects have to reach deep into the flower to find the nectar. As they do so, their bodies pick up pollen from the anthers, and they carry it to the next flower they visit.

Receptacle

The receptacle is the top part of the flower stalk, where the parts of the flower are attached. It is often rounded in shape. All the parts of the flower are attached to the receptacle.



Pollination

Bees and butterflies collect nectar from flowers and brush against the **anthers** and **pollen grains** stick to their bodies.

When they collect nectar from the next flower, some of those pollen grains get stuck onto the **pistil**.

Decline of wildflower meadows Page 1

Bees and butterflies are by far the greatest pollinators of plants and flowers world-wide. Pollination occurs when the pollinator moves the pollen from the male plant to the female. All the seed plants we know need pollination to reproduce.

Compared with bees, butterflies are not capable of distributing pollen between plants in large amounts, particularly because of their anatomy. Their bodies are very slick, making it difficult for pollen to stick on them, while butterflies' long legs often do not allow for direct contact between their body and the pollen-bearing anthers.

Butterflies can be found on clusters of flat, large flowers which are a rich source of nectar for them, such as coneflowers or zinnias.

The decline in wildflower has resulted in the decline of bees and butterfly population.

The population of bees and butterflies across Europe has rapidly declined and the best data shows that one out of ten bees and butterflies are threatened with extinction here.

Decline of wildflower meadows Page 2

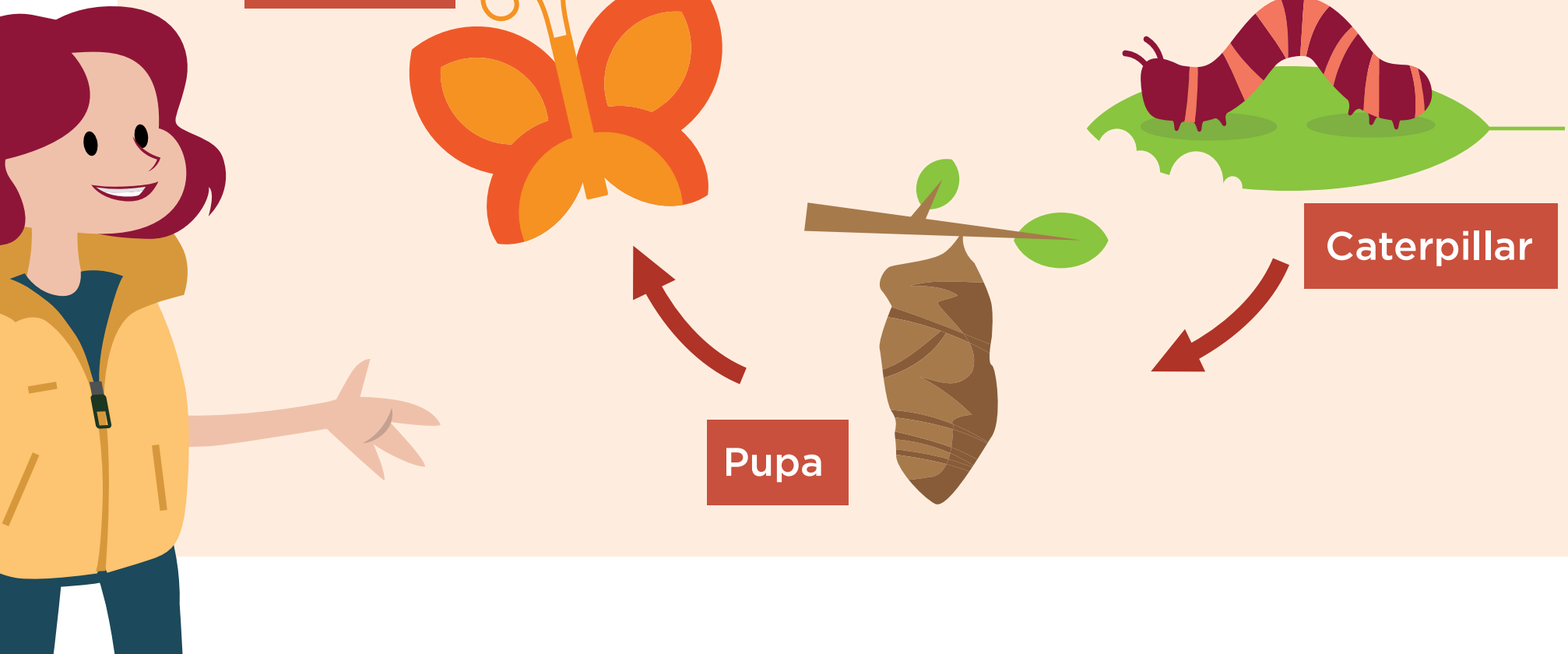
The decline of pollinators is down to lots of things including loss of wildflower meadows; the use of pesticides in farming to kill unwanted insects as well as global warming.

Over 97 per cent of wildflower meadows have been lost since the 1930s. We need to help rewild our green spaces to help our pollinators to thrive otherwise our food supply will suffer. Some of the foods that are dependent on pollinators are the fruits and vegetables we eat every day and coffee beans.

Rewilding means replanting flowers and plants, cereals and fruits, and sometimes reintroducing animals, so that nature can take care of itself. By rewilding we can start to reverse any damage and make sure our food supply does not suffer.

Early beginnings Page 1

Life-cycle of
a butterfly



Early beginnings Page 2

1

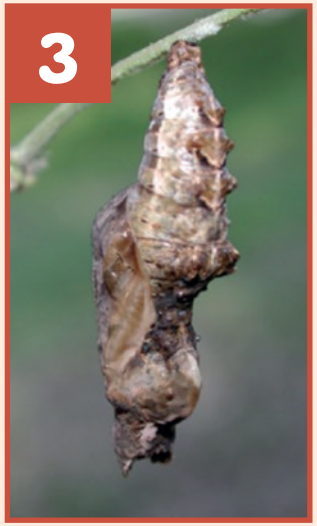
We all love butterflies for their beautiful, brightly-coloured wings. But did you know that butterflies undergo a fascinating four-stage life-cycle, starting as tiny eggs laid on leaves in which the larva (or caterpillar) forms.

2

Eggs can hatch after a few weeks or remain dormant for a season (usually winter) before emerging. Once hatched, caterpillars vary massively in size, shape and colour depending on species. Some are furry, some spiky, some camouflaged, some smooth. All caterpillars love to eat and will munch their way through a large amount of mostly green leaves to store up energy for their next phase – the chrysalis.

Early beginnings Page 3

3



The chrysalis (or pupa) stage of a butterfly's life-cycle sees it transformed from shuffling caterpillar to free-flying butterfly. The caterpillar surrounds itself with a protective case and anchors itself to a plant.

4

Finally, the insect emerges from its cocoon as a fully formed butterfly, ready to find a mate and start the process all over again! At this stage some butterflies will travel miles in order to breed. The Painted Lady (above) is a long-distance migrant, arriving in the UK every year and breeding here during the warmer months, with the offspring then emigrating southwards.

Early beginnings Page 4

Different species have babies in different ways:

Frogs and toads lay eggs which, in turn, become tadpoles before the frogs emerge.

Birds lay eggs too, in nests and incubate them until the baby birds hatch.

Water voles (mammal babies) deliver their babies directly into a nest usually built in the bankside of a stream, pond or reservoir. Five voles together at birth weigh a teeny weeny 1 ounce!

Butterfly species

Dingy Skipper

Large White

Known as the Cabbage Butterfly.
This is the male.

Large White

This is the female.

Small Tortoiseshell

Painted Lady

Orange-tip Butterfly

Wildflower species Page 1

How many of these wild flowers do you recognise and how many can you find at Mill Waters?

Foxglove

Forget-me-not

Buttercup

Speedwell

Calendine

Wildflower species Page 2

Bluebells

Perennial thistle

Daisy

Cow parsley

Dandelion