3 Flowers, fruits and seeds

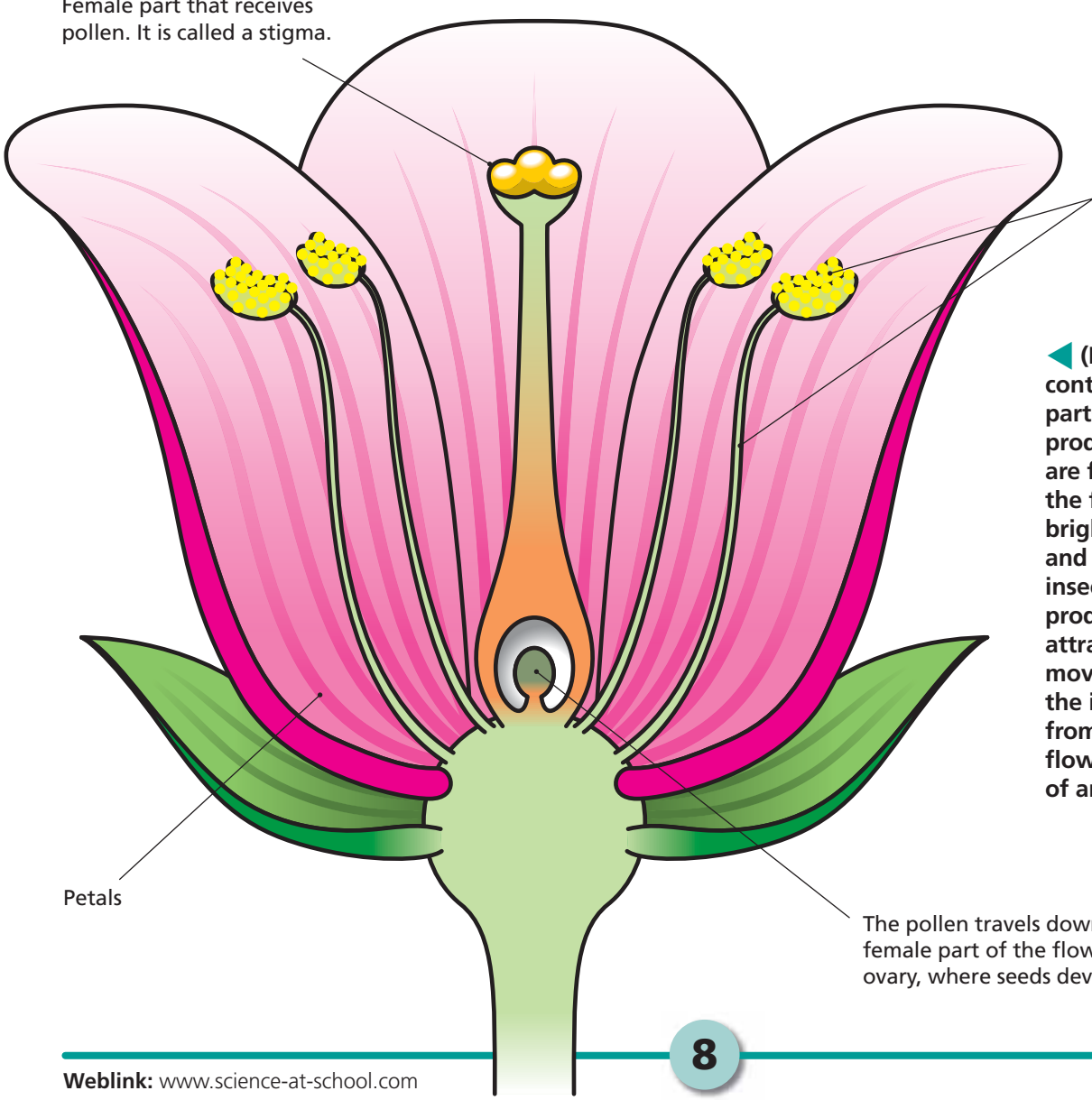
When flowering plants reach the breeding stage of their life cycle they produce flowers. These develop into fruits which contain seeds.

When a plant is fully grown it produces **FLOWERS** (Picture 1). The male parts of the flowers contain pollen. Pollen is vital to the life cycle of the plant. It must pass from one flower to another for seeds to be made. The movement of pollen is called **POLLINATION**.

How flowers become pollinated

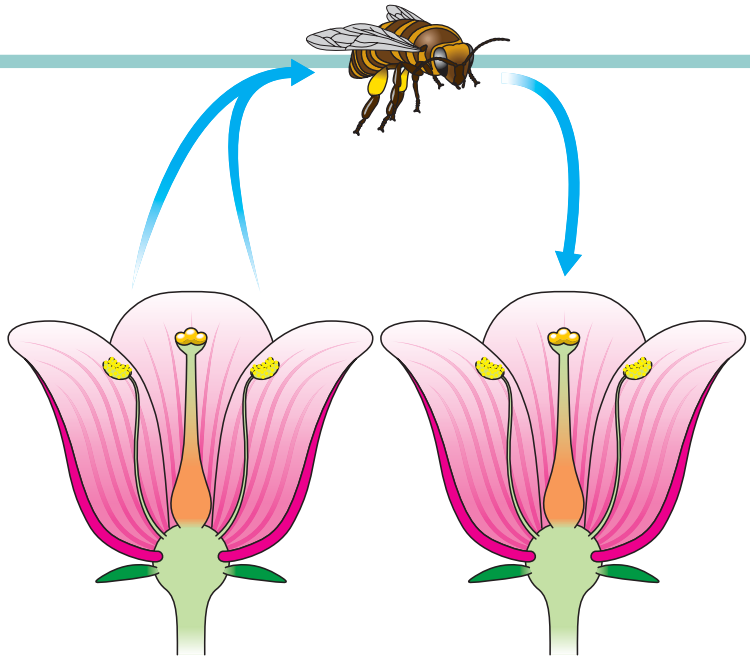
Flowering plants have two ways of moving their pollen. They can use animals, such as insects, or the wind (Picture 2).

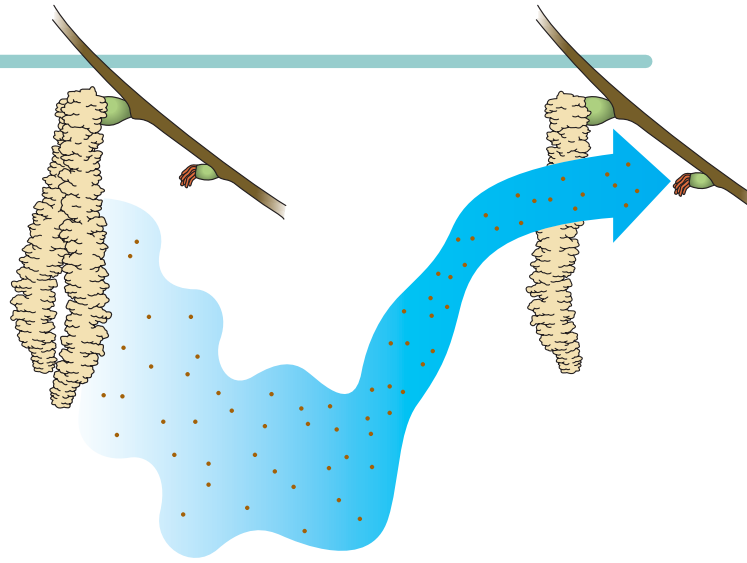
Flowers that need insects are colourful and often scented. The colour and the smell attract insects to them. The flower also provides the insect with a drink



(Picture 1) A flower contains male and female parts. The male parts produce pollen. The seeds are formed and grow in the female parts. The brightly coloured petals and sugary nectar that insect-pollinated flowers produce are designed to attract insects. As they move between flowers, the insects carry pollen from the male parts of one flower to the female parts of another.

Weblink: www.science-at-school.com



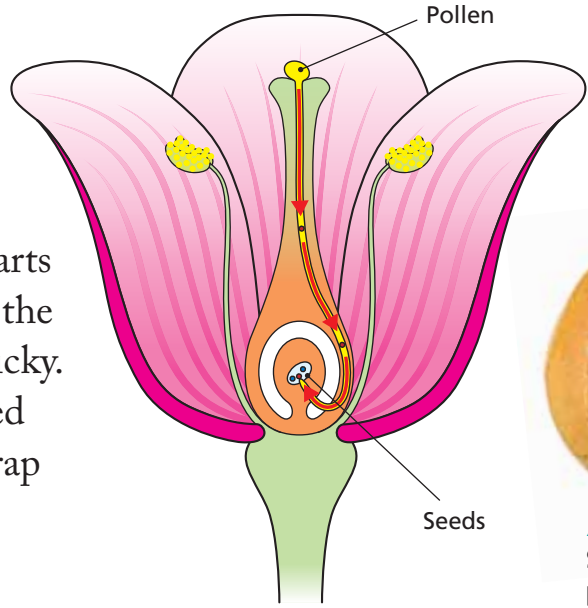


◀▲ (Picture 2) Plants share their pollen in two ways: by letting insects carry it (left); or by allowing it to drift in the wind (above).

of sugary food called **NECTAR**. As the insects move from flower to flower in search of nectar, pollen sticks to their bodies. In this way pollen can be carried between flowers.
Insects take the pollen away to other flowers of the same kind. The male parts of a flower release their pollen before the female parts of that flower become sticky. Only flowers that have already released their pollen will have sticky pads to trap pollen carried from other flowers.

Where seeds develop

Once a flower has been pollinated, the base of the flower swells (Picture 3). This is called **FERTILISATION**. Later, the petals may fall off, and the centre of the flower may change colour. Inside the swollen part of the flower – the **FRUIT** – new seeds begin to develop. A fruit is the container for the seed (Picture 4). It may be juicy like an orange, hard like a nut, or feathery like a dandelion parachute.



▲ (Picture 3) After a female part of a flower has received pollen, it swells and seeds develop. As the seeds grow, the petals wither.

▲ (Picture 4) Some flowers produce a single fleshy fruit containing a seed. This is an apricot.

Summary

- A plant produces flowers when it is mature.
- There are two kinds of flowers – insect-pollinated flowers and wind-pollinated flowers.
- The fruits and seeds form in the centre of the flower once it has been pollinated.