

How Plants Grow

Learning Objective:

To explore the part that flowers play in the life cycle of flowering plants.

What
do flowers actually
do? What is their
purpose?



Discuss your ideas.

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A flower is the reproductive part of a plant. In a flower, pollen grains and egg cells combine and grow into seeds; this process is called **pollination**.



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Although the flowers of different plants can look very different, they have the same parts. Flowers contain both male and female reproductive parts.



Before a flower opens, the green **sepals** around the outside of the flower help to protect it.



Petal

Stamen

Carpel

Let's take a closer look at the male reproductive part: the stamen...



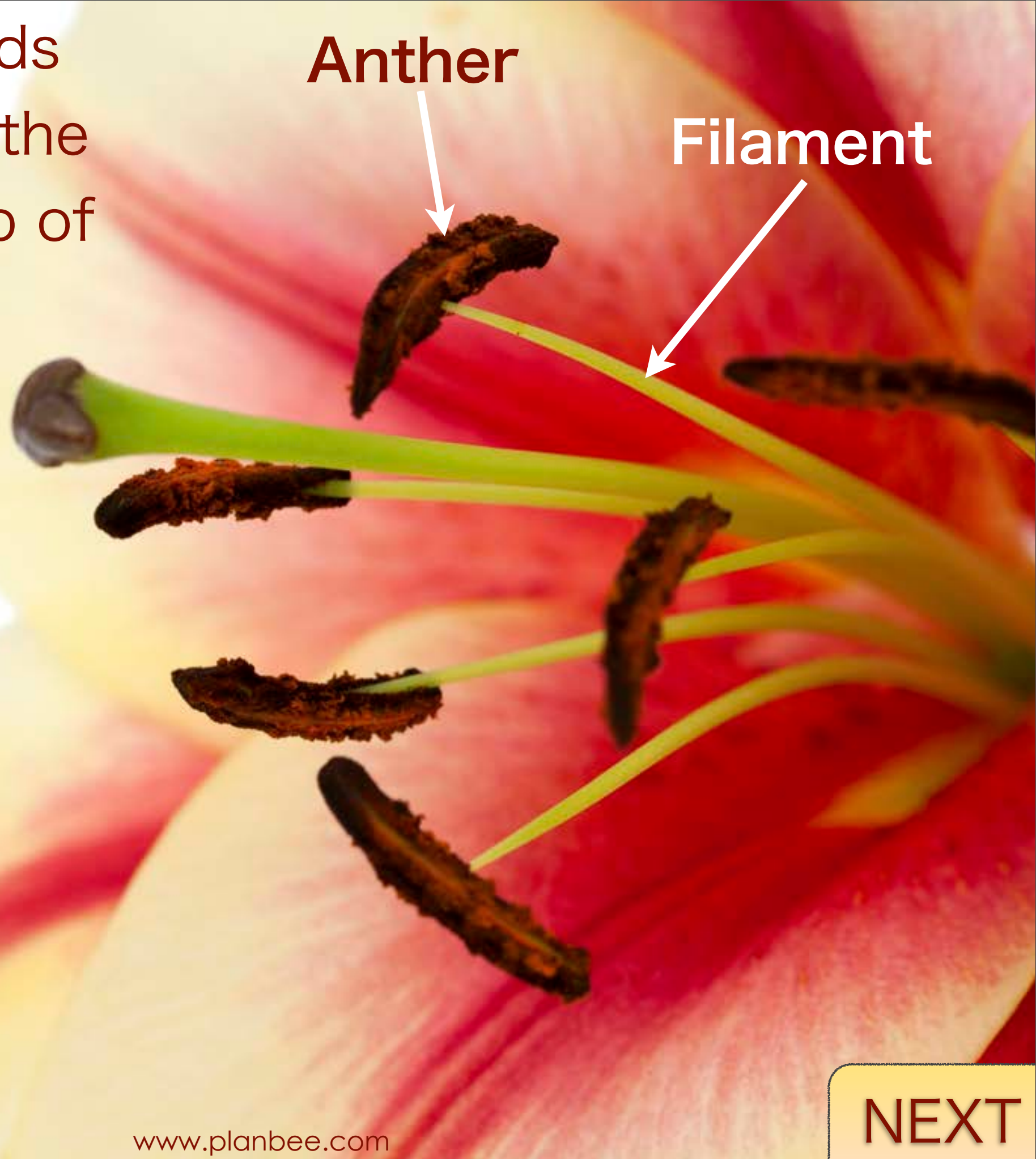
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The stamen holds pollen grains on the anther, at the top of the filament.

For pollination to occur, the pollen grains must come off the stamen and land on the female parts of a flower.



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Do you
know some ways in
which pollen grains get
from the male stamen to
the female parts of a
flower?



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Pollen grains travel to the female parts of a flower in a number of ways. Some are blown by the wind...



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...aquatic plants often use water to
carry their pollen...



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...some stick to insects that land on
the flower...



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...pollen grains can even be carried by
birds and bats!



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Most flowering plants rely on animals for pollination. They produce nectar, a food source for many insects. The smell of the nectar and the colourful petals of the flower attract insects.



Let's take a closer look at the female reproductive part: the carpel...

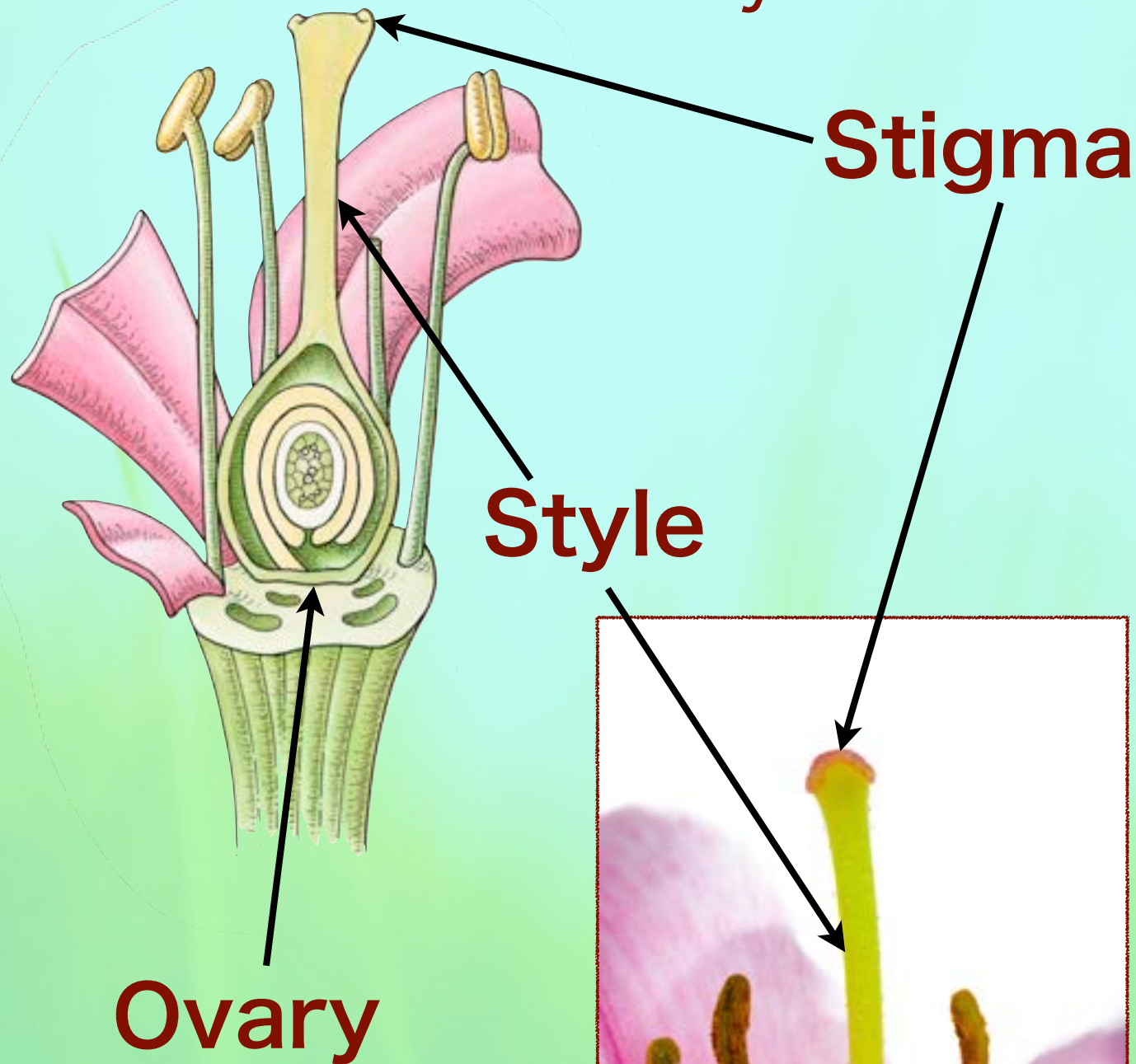


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The carpel has three main parts: the ovary, the style and the stigma.



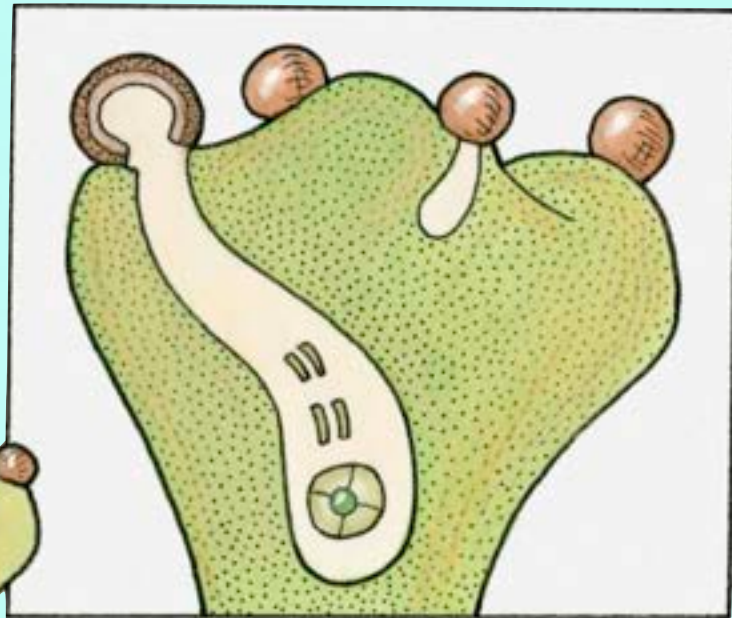
Pollen is often transferred to the stigma by insects landing on the flower. Pollen grains from another flower that have stuck to their bodies rub off on the sticky stigma.



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Pollen grains that have landed on the stigma grow **pollen tubes** down the style. Tiny packages of genetic information are transported down the pollen tubes to the ovary. There, they combine with egg cells and grow to form a seed. This process is called **fertilisation**.

Today we
will be creating a comic strip
to describe how a bee pollinates
a flower!



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