

Life Cycles

Learning Objective:

To describe the process of sexual reproduction in flowering plants.

Do you
remember the
names of the parts
of a flower?



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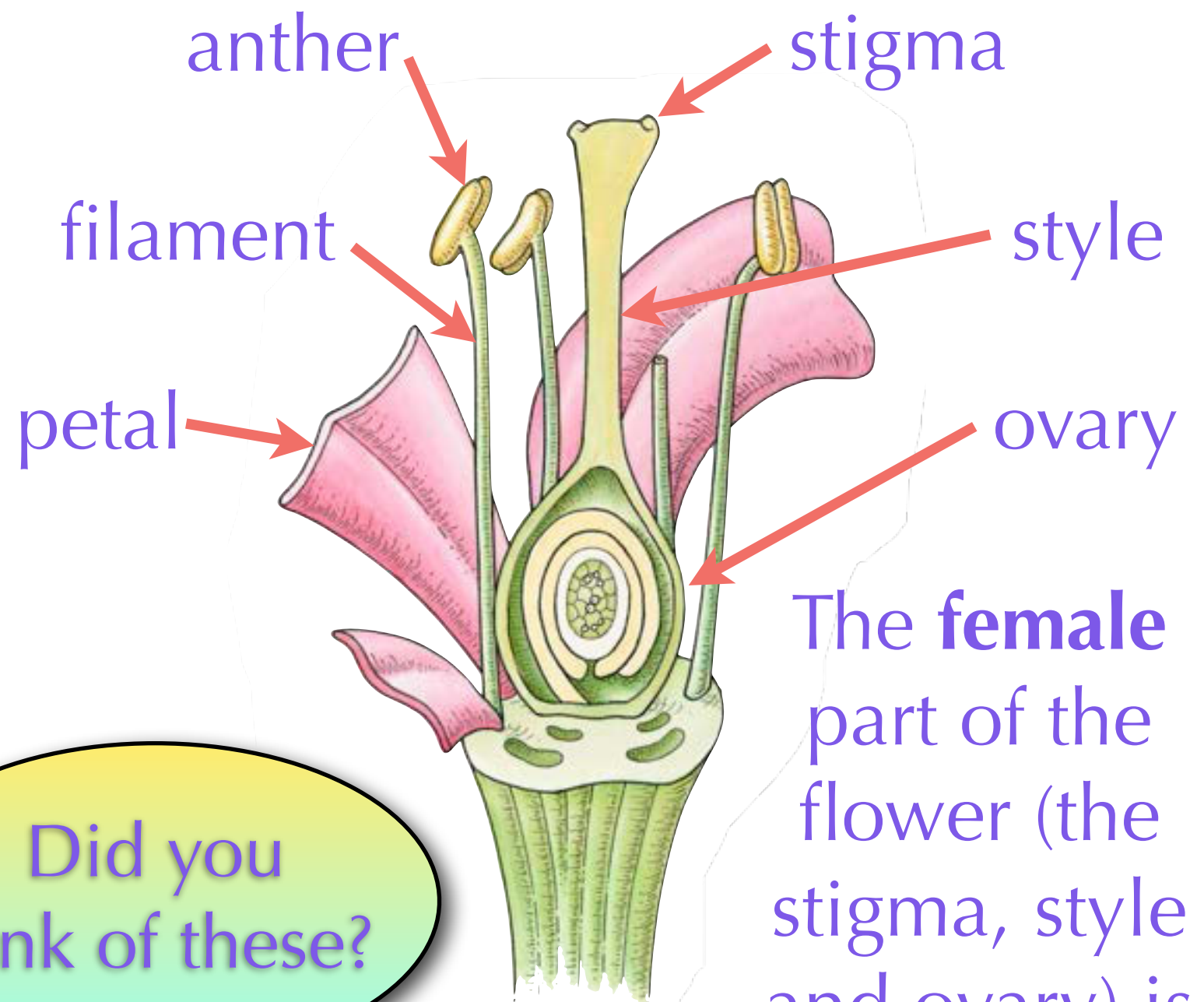
The **sepals** protect the flower when it is growing.



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Did you think of these?

The **male** part of the flower (the anther and filament) is called the **stamen**.



The **female** part of the flower (the stigma, style and ovary) is called the **carpel**.

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Flowering plants have:

- **Petals** to help hold nectar and attract insects
- **Stamens**, which produce pollen grains (the male sex cell)
- An **ovary**, where egg cells are stored, fertilised and grow into seeds

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Flowering plants reproduce **sexually**.



What does
this mean?

Can
you remember how
flowering plants
reproduce?

Discuss your ideas.

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Flowering plants reproduce sexually by a process called **pollination**.



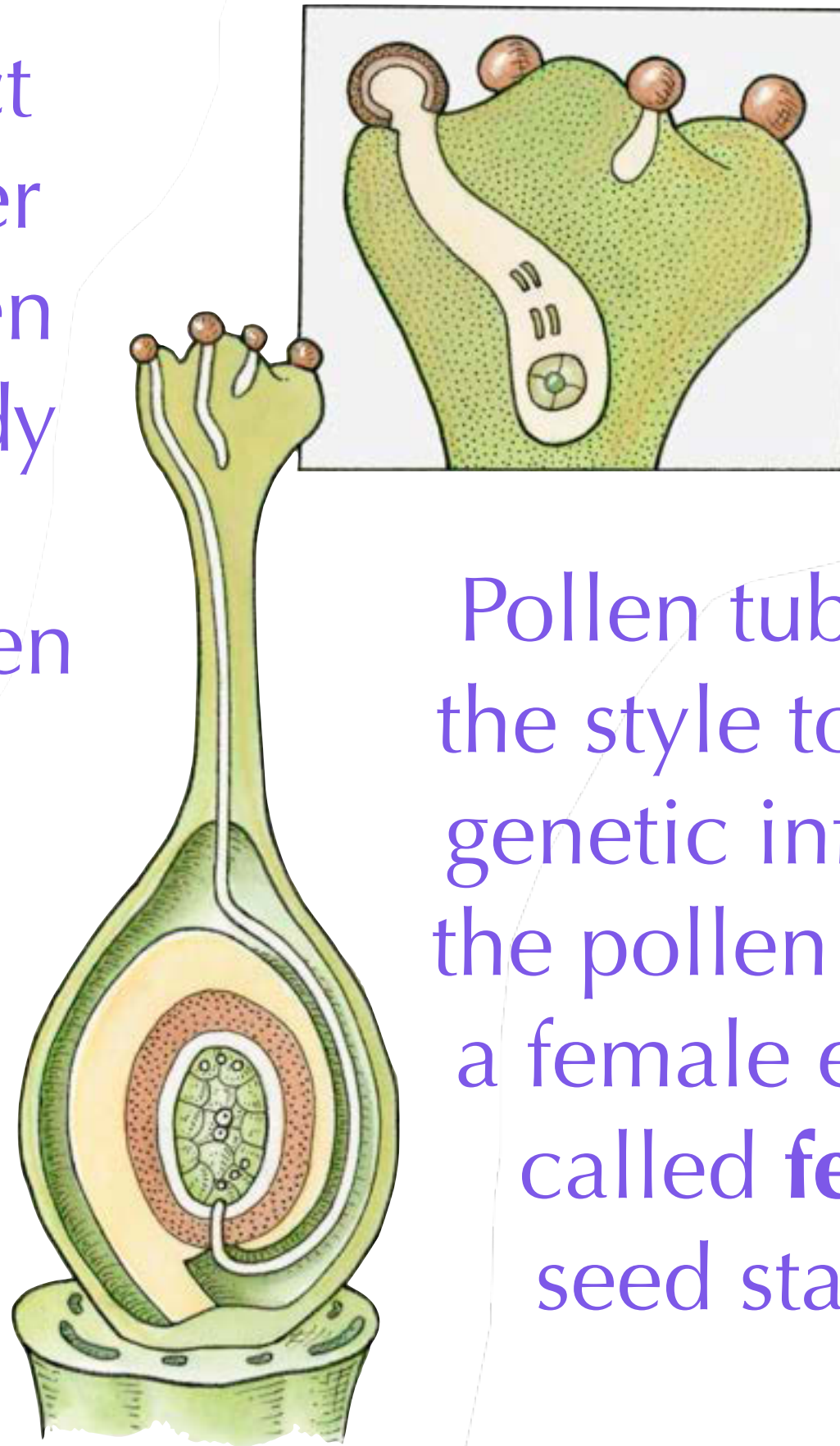
Insects, attracted by the flower's petals, land on the flower and drink its nectar. Pollen from the **anthers** sticks to the insect's body.

Most flowering plants rely on insects to carry out pollination, but the pollen grains of some plants are carried by the wind, water or other animals. Many flowering plants can even pollinate themselves!

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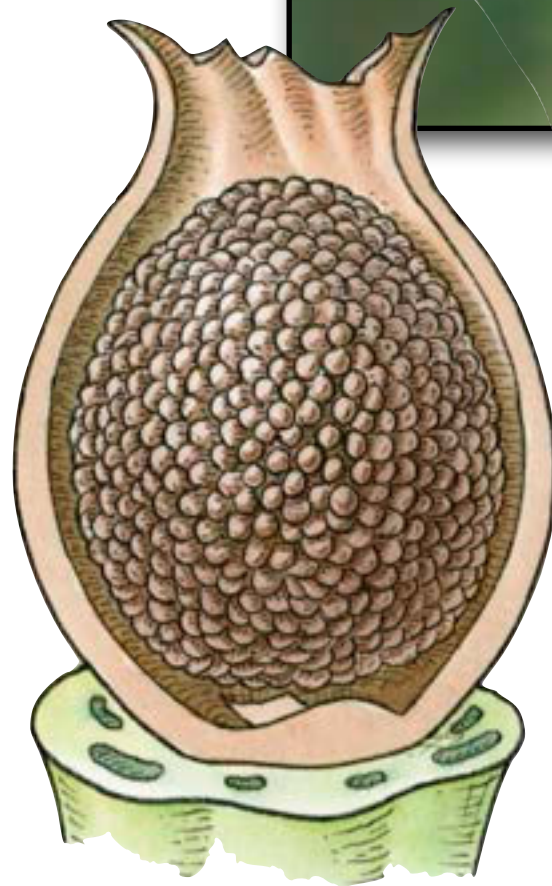
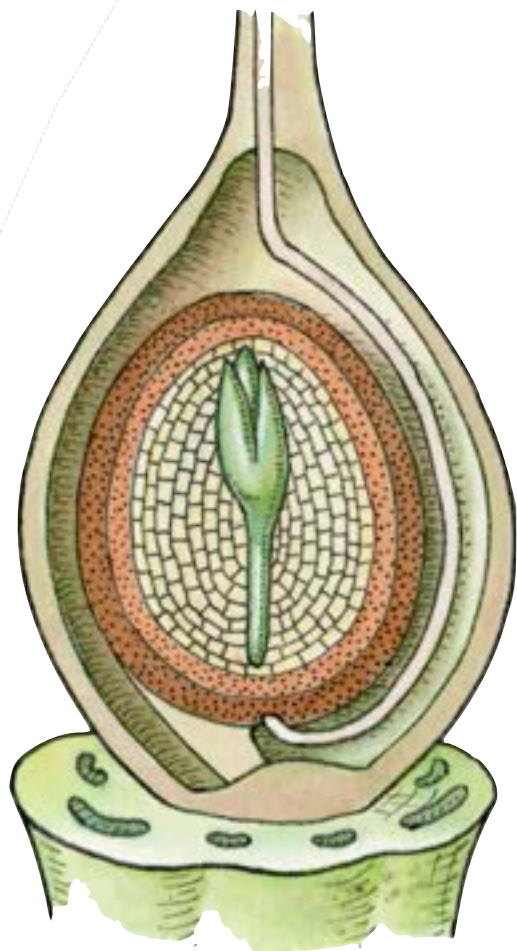
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When the insect lands on another flower, the pollen grains on its body stick to the **stigma**. The pollen grains are the male sex cells. They contain genetic information.



Pollen tubes grow down the style to the ovary. The genetic information from the pollen combines with a female egg cell. This is called **fertilisation**. A seed starts to grow...

As the seed grows, the ovary swells and the petals drop off the flower. The ovary becomes a fruit.



This is a Gooseberry fruit. Can you see where the petals used to be?

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Today we will be labelling and describing the functions of the parts of flowering plants, focusing on how they reproduce.



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Plenary

anther

petal

carpel

filament

stamen

stigma

ovary

sepal

style



Let's
play bingo! Draw a
2 x 2 grid, then choose four of
the words above to write in the
four spaces on your grid. Are
you ready? Let's play....

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“

I protect the flower when it is growing.

”



Read the description above. If you think it matches one of your chosen words, cross it out. When all four of your words are crossed out, stand up and shout 'BINGO!'

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NEXT

“

I am the **female** reproductive part of the flower. I have three sections.

”



Read the description above. If you think it matches one of your chosen words, cross it out. When all four of your words are crossed out, stand up and shout 'BINGO!'

BACK

NEXT

“

I am the **male** reproductive part of the flower. I have two sections.

”



Read the description above. If you think it matches one of your chosen words, cross it out. When all four of your words are crossed out, stand up and shout 'BINGO!'

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NEXT

“

I am a section of the **female** reproductive part of the flower. Pollen tubes grow down me.

”



Read the description above. If you think it matches one of your chosen words, cross it out. When all four of your words are crossed out, stand up and shout 'BINGO!'

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“

I am a section of the **male** reproductive part of the flower. I hold the flower's pollen, which sticks to birds and insects.

”



Read the description above. If you think it matches one of your chosen words, cross it out. When all four of your words are crossed out, stand up and shout 'BINGO!'

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NEXT

“

I am a section of the **female** reproductive part of the flower. I store egg cells which, once fertilised, grow into seeds.

”



Read the description above. If you think it matches one of your chosen words, cross it out. When all four of your words are crossed out, stand up and shout 'BINGO!'

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NEXT

“

I am a section of the **male** reproductive part of the flower. I hold the anther up nice and high so that its pollen can stick to insects and birds.

”



Read the description above. If you think it matches one of your chosen words, cross it out. When all four of your words are crossed out, stand up and shout 'BINGO!'

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“

I am usually around the outside of the flower. I help to hold nectar in some flowers, and I attract insects and birds.

”



Read the description above. If you think it matches one of your chosen words, cross it out. When all four of your words are crossed out, stand up and shout 'BINGO!'

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“

I am a section of the **female** reproductive part of the flower. Pollen grains from other flowers get stuck to me.

”



Read the description above. If you think it matches one of your chosen words, cross it out. When all four of your words are crossed out, stand up and shout 'BINGO!'

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- | | |
|-----------|-------------|
| 1. sepal | 6. ovary |
| 2. carpel | 7. filament |
| 3. stamen | 8. petal |
| 4. style | 9. stigma |
| 5. anther | |

How did you do? If you need to check, here are the answers.



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