Exercise walk-through

Sexual reproduction in plants ▪ 16.3

eXercise

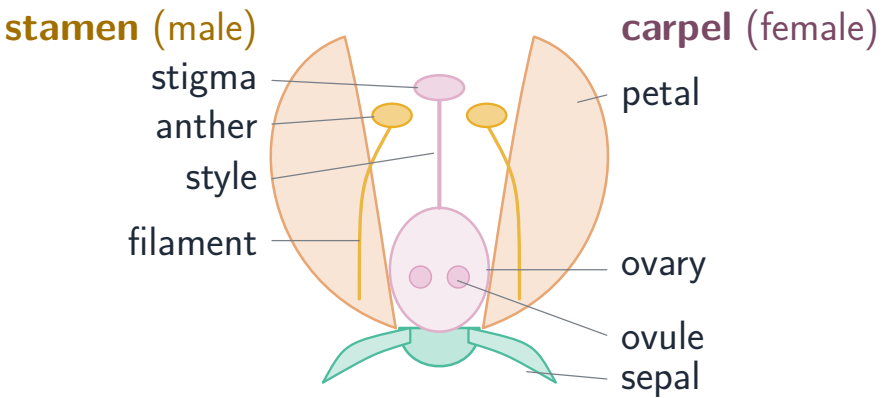
You must be able to

- name the flower parts and their functions
- compare insect- and wind-pollinated flowers
- describe pollination, fertilisation and the needs for germination

Method — Flower and pollination

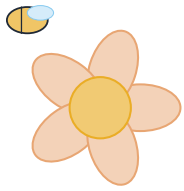
- **germination** needs water, oxygen and a suitable temperature.

Method — Flower and pollination

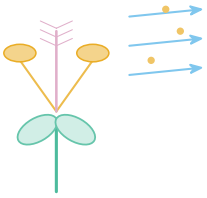


A section through an insect-pollinated flower

Method — Flower and pollination



insect-pollinated
bright petals, scent + nectar; sticky, spiky pollen



wind-pollinated
small dull petals; anthers & stigma hang out; light pollen

Insect- vs wind-pollinated flowers

Practice 2.1 ▪ 1 mark

Name the male part of a flower.

Solution 2.1

Method: Flower and pollination

Worked steps

the stamen (anther and filament) B1.

Practice 2.2 ▪ 1 mark

Define pollination.

Solution 2.2

Worked steps

the transfer of pollen from an anther to a stigma B1.

Exam-style 3.1 ▪ 1 mark

A wind-pollinated flower is likely to have:

A large bright petals and nectar

B small dull petals and anthers hanging out

C sticky pollen

D strong scent

Solution 3.1

Method: Flower and pollination

A large bright petals and nectar

B small dull petals and anthers hanging out ✓

C sticky pollen

D strong scent

Worked steps

B. Wind-pollinated flowers have small dull petals and exposed anthers.

Exam-style 3.2 ▪ 2 marks

A flower is pollinated by insects.
(a) State two features that help attract insects.
(b) State the three conditions a seed needs to germinate.

Solution 3.2

Method: Flower and pollination

Worked steps

(a) any two of: bright/large petals; scent; nectar B1 B1.
(b) water; oxygen; a suitable temperature B1 B1 B1.