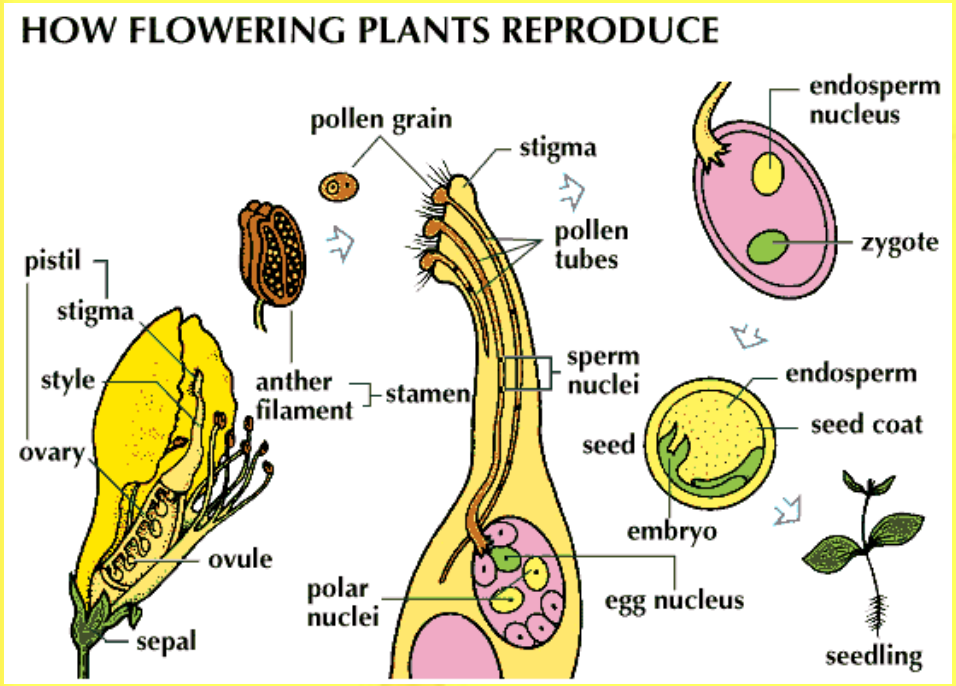
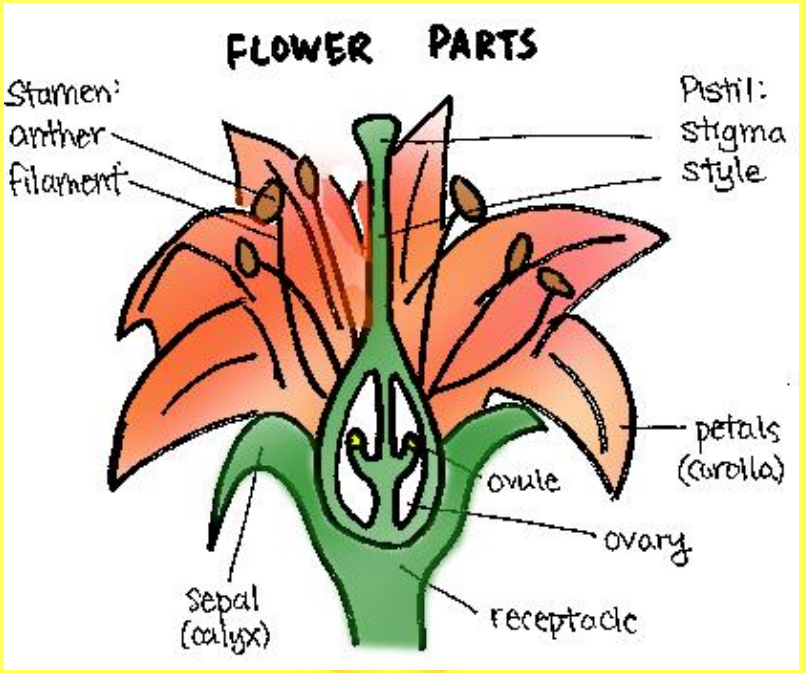




REPRODUCTION
in flowering plants

Learning Objectives

- To understand the basics of Plant Reproduction.
- To understand the sex cells of different plants.
- To understand how flowers are fertilized.

Plant Reproduction

What you need to know:

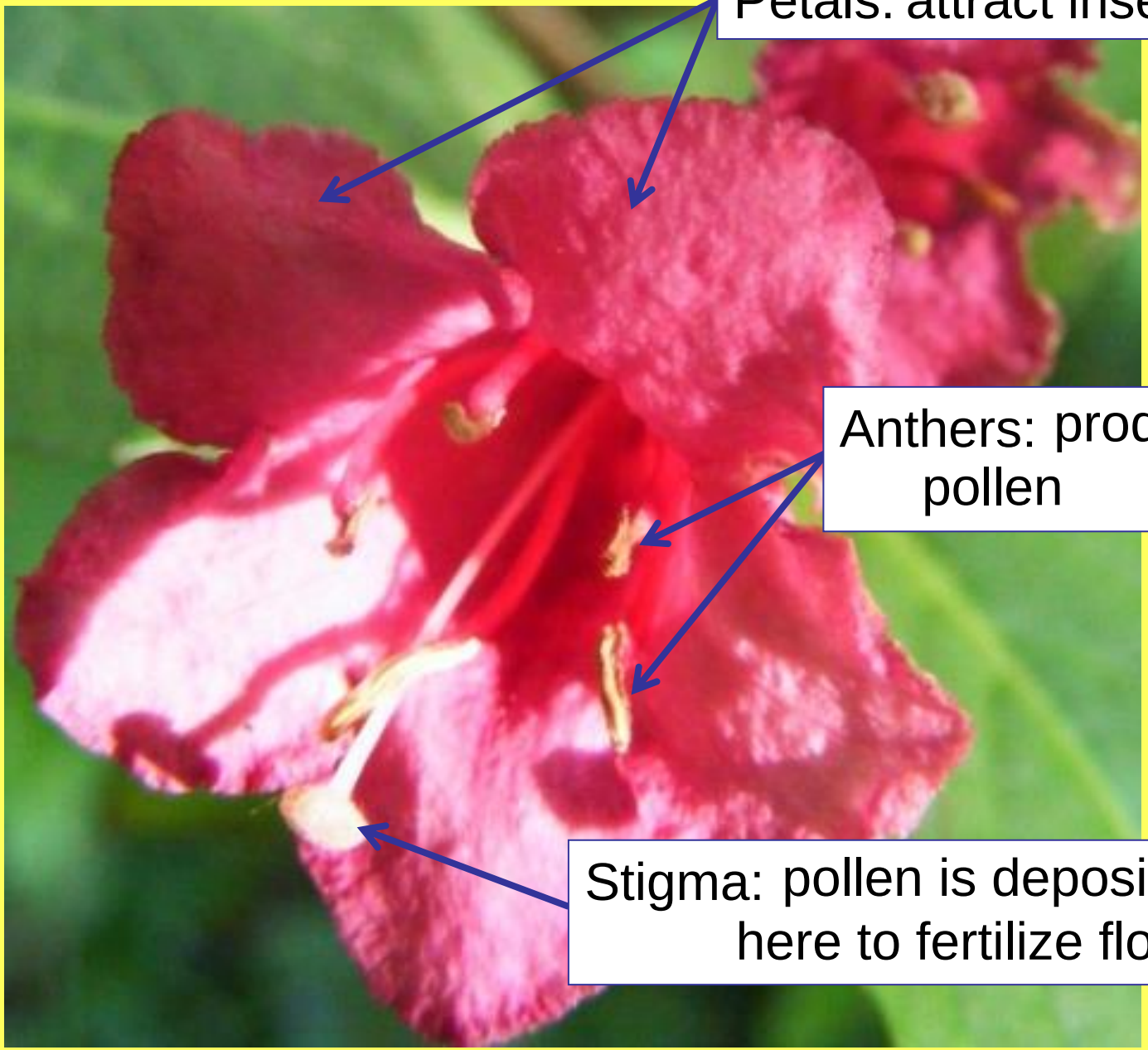
- What are the sex cells of flowering plants called?
- How are flowers fertilized?
- What do the parts of a flower do?

Question:

- What does a grass flower look like?

What do all these flowers have in common?

They are all *insect* pollinated


Petals: attract insects
Anthers: produce pollen
Stigma: pollen is deposited here to fertilize flower

What do all these flowers have in common?

They are all *wind* pollinated

Feathery stigma:

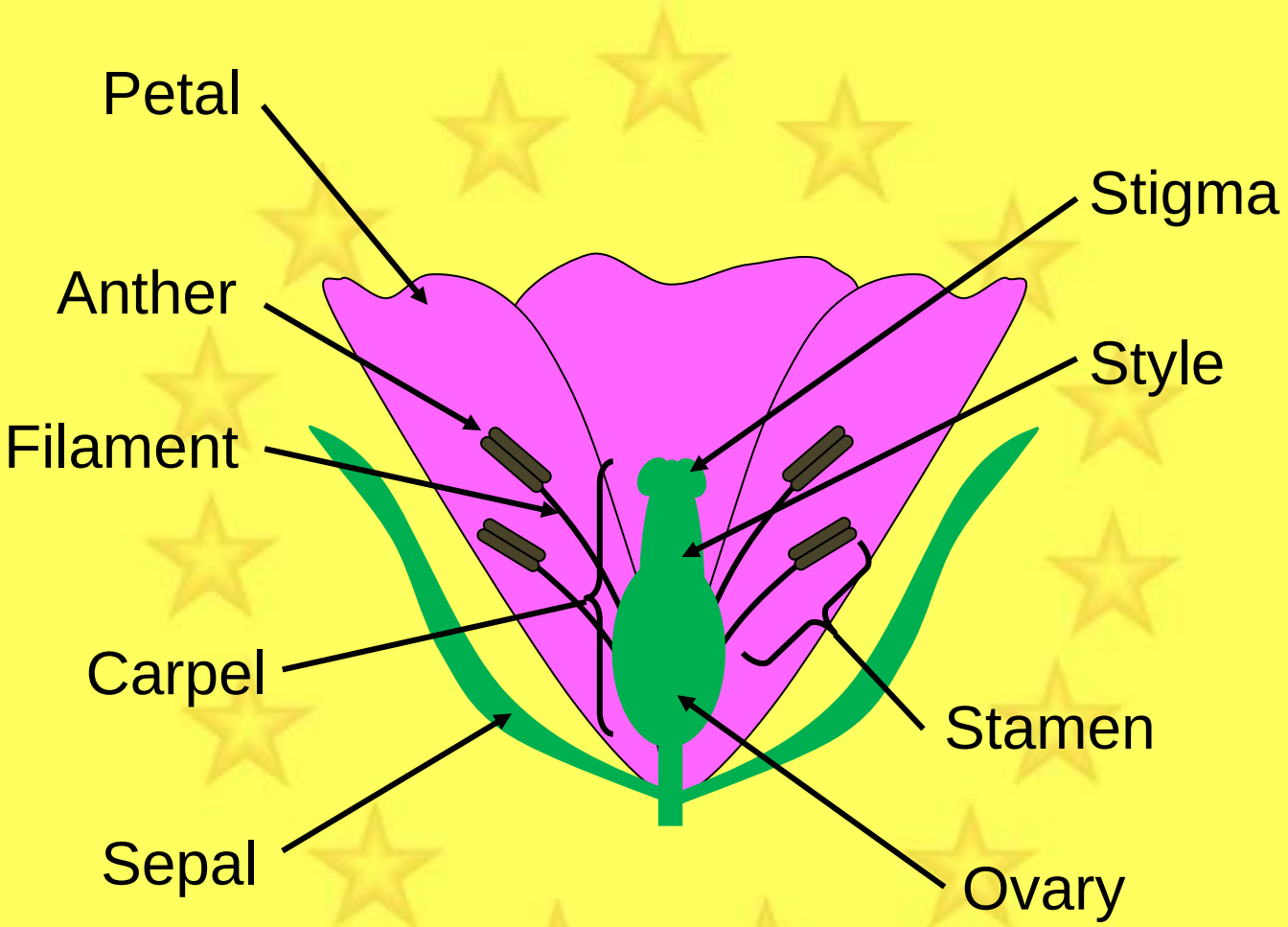
catch pollen carried by the wind

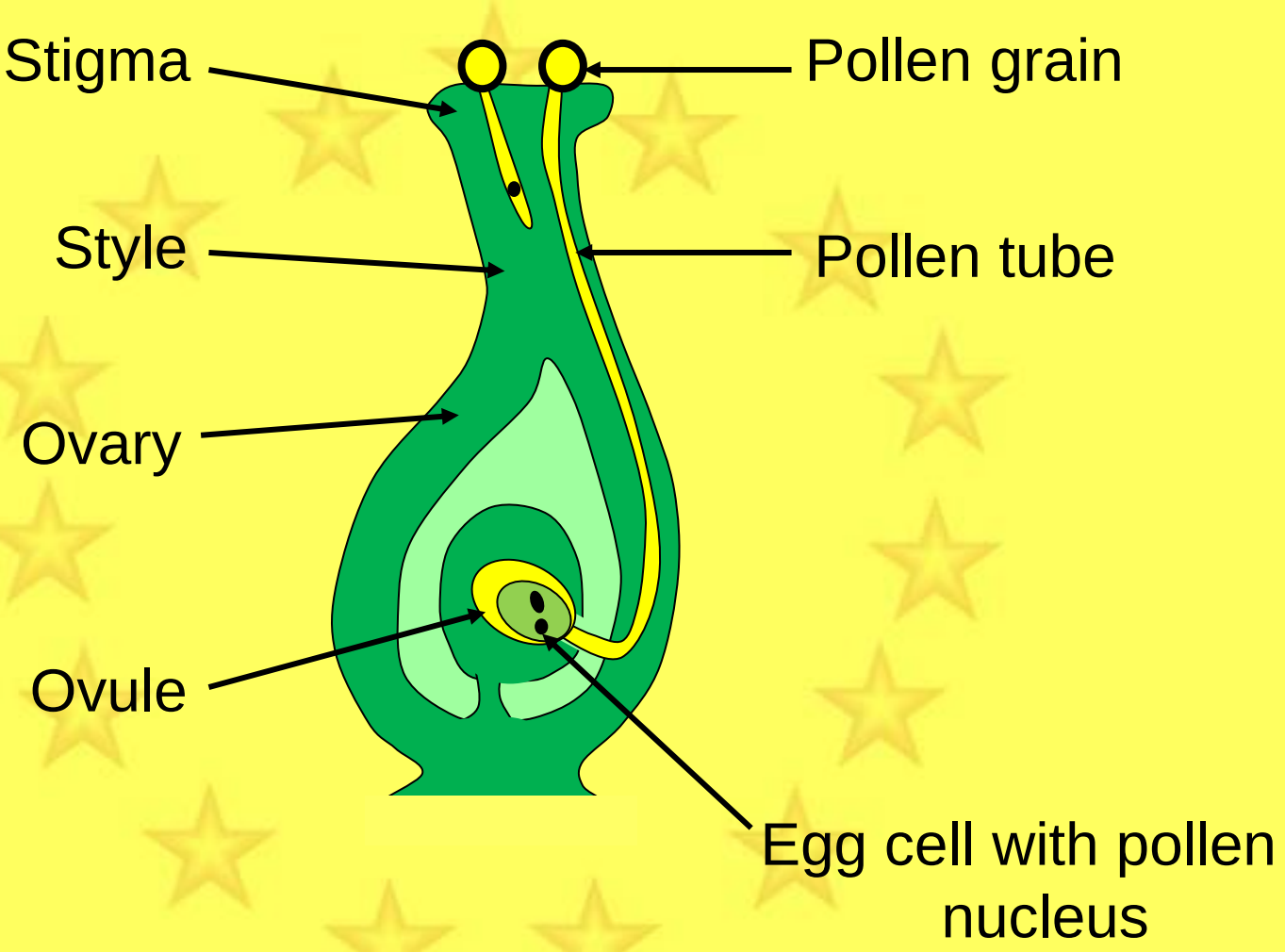
Anthers: hang out of flower

release pollen when shaken by wind

Stapelia grandiflora - is a big-flowered, cactus-like African plants pollinated by flies.

It looks and smells like rotten flesh.


Petal
Anther
Filament
Carpel
Sepal
Stigma
Style
Stamen
Ovary

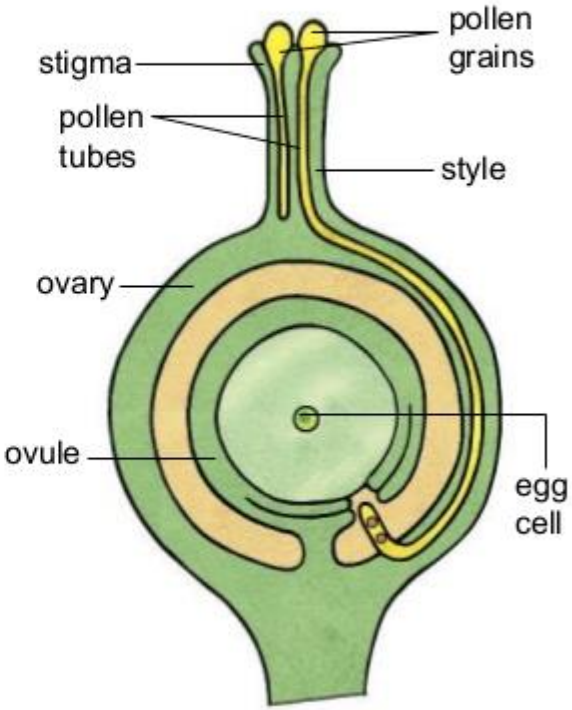

Stigma
Pollen grain
Style
Pollen tube
Ovary
Ovule
Egg cell with pollen nucleus

What happens at the moment of fertilization?

The nucleus from the pollen fuses with the nucleus of the egg cell

Fertilisation

- When a pollen grain lands on the surface of a stigma, it produces a tube.
- The inside of the tip of the tube contains the **male cells** of the flower.
- These tubes grow down the style to reach the ovules in the ovary.
- Inside each ovule is an **egg cell**.



Term	Definition
Petal	Coloured, flag-like structures which attract insects
Stamen	The male sex organ – made of the filament and the anther
Anther	Part of the male sex organ – makes pollen
Filament	A thin stalk that supports the anther
Carpel	The female sex organs – made of the stigma, the style and the ovary
Stigma	Collects pollen
Style	Connects the stigma to the ovary
Ovule	Found inside the ovary; contains the egg cell
Pollen tube	Grows out of the pollen grain and into the stigma: carries the pollen nucleus down to the egg cell

To Do:

- Make a poster explaining

  - what is a flower?

  - what do the different parts of a flower do?

  - what happens when a flower is pollinated?