

IGCSE Biology

YR 10

Plant Reproduction

Name: _____

Reproduction

1. What is reproduction?

2. What are the two types of reproduction?

3. Asexual reproduction produces new offspring without the fusion of _____ . The offspring are _____ to the parent plant.

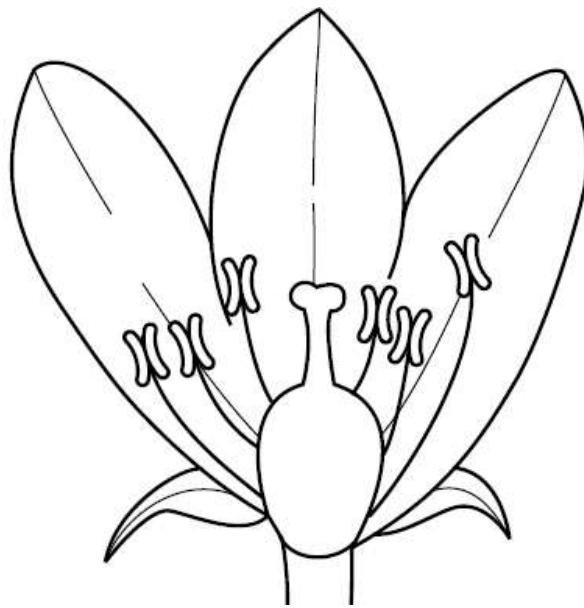
4. What are the different types of asexual reproduction?

5. In sexual reproduction both the _____ and _____ parent carry _____. The male sex cell in plants is called the _____ and the female sex cell is called the _____. These two sex cells are also called _____.

6. Pollination occurs when the _____ transfer to the _____ . Fertilisation occurs when a _____ is formed. The male and female sex cells are produced by _____ in the structure of the flower.

Parts of a flower

Label this flower and give the definition of each part below:



Stamen = _____

Anther = _____

Filament = _____

Carpel = _____

Stigma = _____

Style = _____

Ovary = _____

Ovule = _____

Pollination

1. Pollination occurs when the _____ is released from the _____ and land on the _____

2. What are the two methods flowers are pollinated?

3. Compare and contrast wind and insect pollinated flowers:

Insect Pollinated flower	Wind pollinated flower
Large, coloured petals to attract insects	
	No scent (they don't smell!)
Contain nectar to attract the insects	
Anthers are inside the flower where insects have to brush past them to get to the nectar inside	
	Stigma is large and feathery and hangs outside the flower to catch pollen in the air.
Flowers only appear in warm weather when there are insects around	

4. True or false? *Pollination is basically the same as fertilisation*

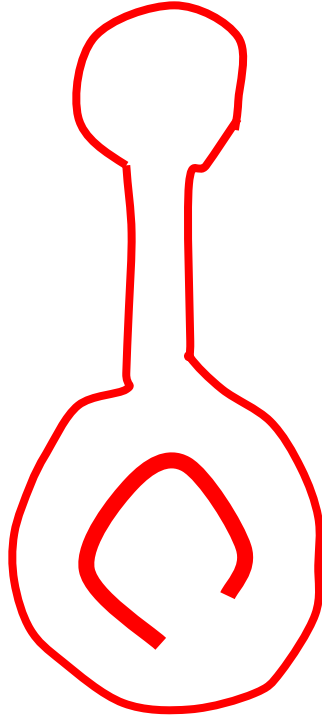
Write out the correct version below:

5. How does cross pollination differ from self pollination?

6. Why is it preferable for a plant to encourage cross-pollination rather than self pollination?

Fertilisation

1. Annotate this diagram to explain what happens during fertilisation.



2. Add "Zygote" and "Embryo" to your glossary list.
3. The zygote turns into the _____
4. The ovary turns into the _____
5. Water is removed from the seed in order to _____
activity and let the seed _____

Seed Dispersal

1. Any structure that contains a seed is a _____

2. What is the function of fruits?

3. Why is seed dispersal important?

a. _____

b. _____

4. What sorts of things will plants compete with each other for? List as many as you can _____

5. Describe in as much detail as you can how plants disperse their seeds:

Seed structure

1. What do seeds contain?

2. What will the radicle grow in to? _____

3. What will the plumule grow in to? _____

4. What will the hypocotyls grow in to? _____

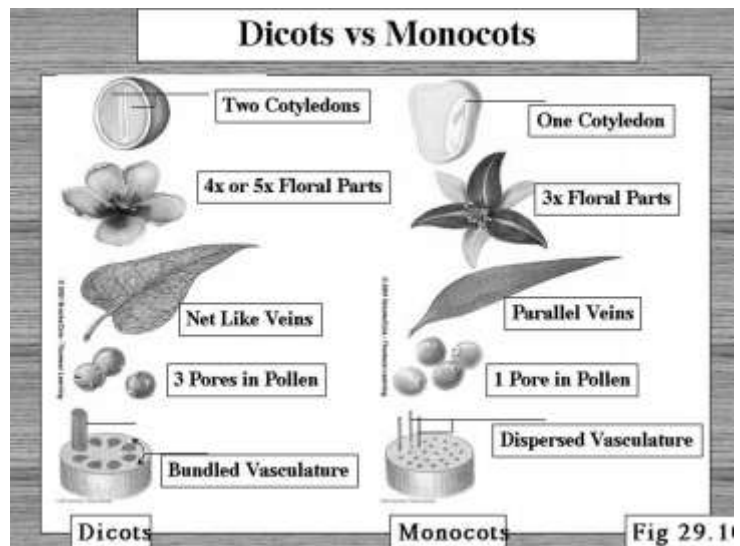
5. What are the cotyledons? _____

6. What is the testa? _____

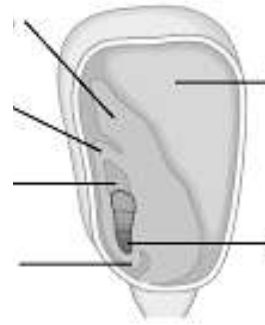
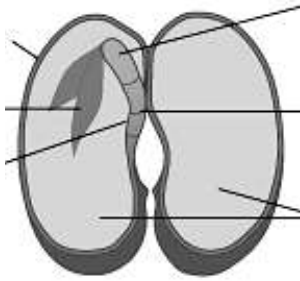
7. What is the microphyte? _____

8. Seeds with two cotyledons are called _____.

Seeds with one cotyledon are called _____



9. Label these diagrams of the seed:

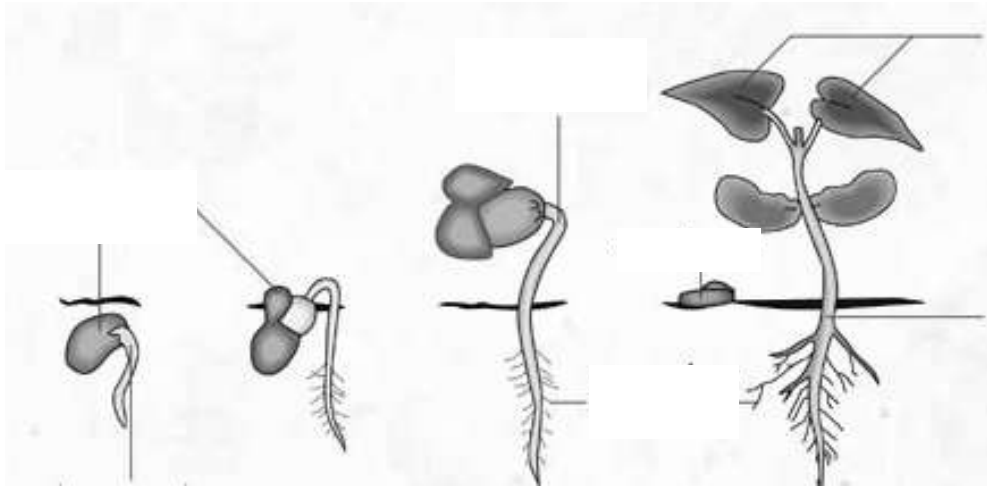


Germination

1. What is germination? _____

2. What is the first thing to happen in germination? _____

3. Complete the germination diagram



4. Explain how these factors affect germination:

Water

Oxygen

Temperature

Light

