

MINISTRY OF EDUCATION
SECONDARY ENGAGEMENT PROGRAMME
GRADE 8
INTEGRATED SCIENCE

Week 3

Lesson One - Worksheet 2

Topic/sub-topic: Sexual Reproduction in plants

Section A

1. Where can pollination occur?
 - A. Between pollen grains and stigma of the same flower.
 - B. Between pollen grains and stigma of different flowers of same species.
 - C. Only between pollen grains and stigma of the same flower.
 - D. Both (a) and (b).

2. What occurs in a flowering plant before it can produce seeds?
 - A. Pollination
 - B. Photosynthesis
 - C. Transpiration
 - D. Germination

Questions 3 and 4 refer to the information given below.

Miss Jones is making a display about the process of sexual reproduction in plants. She writes down the following stages:

- (i) An insect visits a flower and pollen from the anthers sticks to the insect's body and legs.
 - (ii) The insect flies to a different flower.
 - (iii) Pollen from the insect's body and legs sticks to the stigma of the new flower.
 - (iv) The pollen grain grows a tube from the stigma down to the ovule.
 - (v) Part of the pollen grain moves down the tube toward the ovule.
 - (vi) Part of the pollen grain joins with the ovule inside the ovary and makes a seed.
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3. Which number describe pollination
 - A. i
 - B. iii
 - C. iv
 - D. v

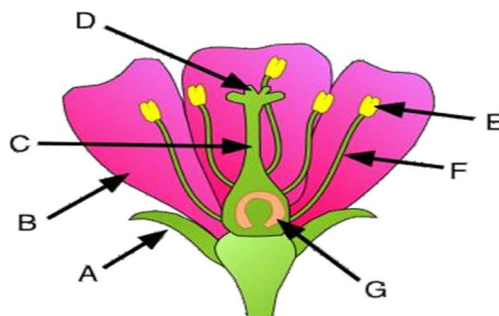
4. Which number describes fertilization
 - A. iii
 - B. iv
 - C. v
 - D. vi

5. In which part of the flower is pollen made?
 - A. Filament
 - B. Stigma
 - C. Anther
 - D. Ovary

6. Where is the ovule found?
 - A. Inside the stigma
 - B. On the anthers
 - C. Inside the ovary
 - D. Inside the pollen tube

7. Sexual reproduction in a flowering plant involves germination, growth, pollination, fertilization, and seed dispersal. Which of the following shows these stages in the correct order?
 - A. Growth, seed dispersal, pollination, fertilization, germination
 - B. Growth, pollination, fertilization, germination, seed dispersal
 - C. Growth, pollination, fertilization, seed dispersal, germination
 - D. Growth, fertilization, pollination, germination, seed dispersal

Questions 8 to 10 refers to the diagram given below

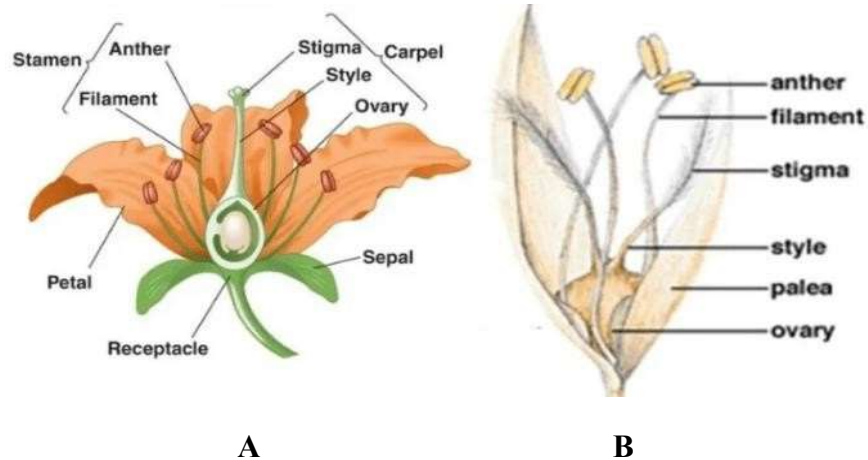


8. The part of the flower labeled C is called the
 - A. Stigma
 - B. Ovary
 - C. Style
 - D. Sepal

9. All the following make up the female part of the flower except
- A. B
 - B. D
 - C. G
 - D. F

10. The filament and anther make up the male part of the flower called
- A. Stamen
 - B. Carpel
 - C. Pistil
 - D. Sepal

There are two main mechanisms for pollination to occur. Flowers are adapted to suit the mechanism by which they are pollinated.



11. (a) Identify which flower is pollinated by:
- Wind
 - Insect
- (b) Give two (2) reasons to support your answer above

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Answer sheet

Section A

1. D
2. A
3. B
4. D
5. C
6. C
7. C
8. C
9. D
10. A

Section B

1. (a) Flower A is pollinated by insects
Flower B is pollinated by wind

(b) Any two

Part of the flower	Insect pollinated (Flower A)	Wind pollinated (Flower B)
Stigma	Small stigma found inside of the flower and	Larger, feathery stigma hanging outside of the petals
Petals	Large, brightly coloured petals	Small, dull petals
Stamen	Stamens are small and hidden inside petals.	The stamens are long and visible out of petals.
Filament	Filaments are short	The filaments are slender and long.