

9Thursday 2nd April 2020

Science lesson 8

1. a) Why is transplanting usually carried out in the evening?

To prevent wilting of crops// There is low transpiration

b) Give any one way farmers can reduce transpiration among their banana plants during the dry season.

By pruning// by cutting off some leaves

c) How can transpiration be reduced in a nursery bed?

By putting shade on a nursery bed

d) How does wind affect the rate of transpiration?

When the speed of wind is high, the rate of transpiration is also high and when the speed of wind is low, the rate of transpiration is also low//increase in the speed of wind leads to increase in the rate of transpiration and reduction in speed of wind leads to low transpiration

e) Why is the rate of transpiration low at night?

Most stomata are closed due to low temperatures at night

f) Why is the rate of transpiration high during the day?

Most stomata are open due to high temperatures during day

g) By what process does water move up the plant?

By capillary attraction/capillarity

h) Why do plants with big leaves lose more water than plants with small leaves on a hot day?

Plants with big leaves have more stomata than plants with small leaves

- i) Pumpkins and carrots were planted in the same garden in a wet season. Which of the two crops will dry first in case of drought?

Pumpkins

- k) Give a reason for your answer in "I" above.

Pumpkins have bigger leaves and hence more stomata while carrots have small leaves and hence fewer stomata

- l) Why is transpiration called a biological change?

It occurs in plants which are living things

- m) Besides transpiration, given any other 2 biological changes which take place in plants.

i. **Pollination**

ii. **Germination**

iii. **Flowering**




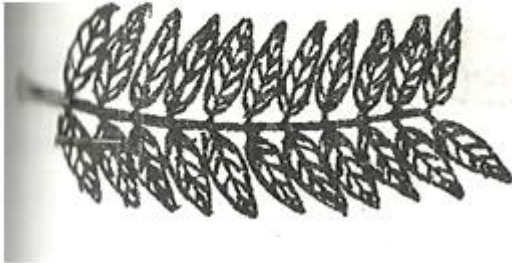
iv. **Ripening of fruits**

v. **Shedding of leaves**

2. How is a compound leaf different from a simple leaf?

A compound leaf has one leaflet on one leaf stalk while a simple leaf has more than one leaflets on one leaf stalk

3. Draw the following leaves;

simple lobed leaf	simple entire leaf
	
Compound trifoliolate leaf	compound pinnate leaf
	

4. How can you tell that a leaf is compound leaf?

When it has more than one leaflets one leaf stalk

5. Why are leaves called a kitchen of plants.

Leaves are structures that make food for plants

6. What do we call the reproductive part of a flowering plant?

Flower

7. State one importance of flowers to plants.

Flowers help plants to produce seeds and bear fruits

8. Name the;

a) Male part of a flower

Stamen /androecium

b) Female part of a flower

Pistil/Gynoecium

c) Male gametes of a plant

Pollen /pollen grains

d) Female gametes of a plant

Ovules

9. Which part of a flower has a similar function as each of the following parts in the reproductive system of animals.

a) Testes (in males)

Anthers

b) Ovaries (in females)

Ovaries

c) Fallopian tube/oviduct (in females)

Ovaries

10. Give a reason for your answer in 9 a, b and c above.

a) Both produce male gametes

b) Both produce female gametes

c) Both allow fertilization to take place

11. Where in flowers does fertilization take place?

In the ovary/ovaries

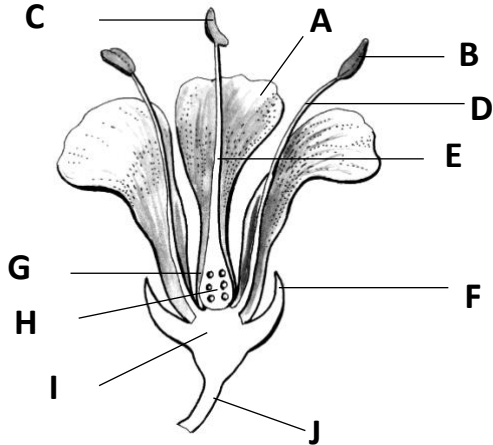
12. What role do flowers play in plant reproduction?

Flowers produce seeds

13. What scientific name is given to flowering plants?

Angiosperms

14. *The diagram below is of a flower. Study it carefully and use it to answer questions that follow.*



a) Name the parts marked with letters

- | | |
|------------------------------|---------------------------------|
| i) A <u>petal</u> | vii) G <u>ovary</u> |
| ii) B <u>anther</u> | viii) H <u>ovule</u> |
| iii) C <u>stigma</u> | ix) I <u>receptacle</u> |
| iv) D <u>filament</u> | x) J <u>flower stalk</u> |
| v) E <u>style</u> | |
| vi) F <u>sepal</u> | |

b) State the importance of each of the parts marked with letters

- i. **A .to attract pollinators/insect pollinators**
- ii. **B .to produce pollen/ pollen grains**
- iii. **C. to receive pollen grains**
- iv. **D. supports the anther**
- v. **E. directs pollen to the ovary**
- vi. **F. protects the flower during the bud stage**
- vii. **G. develops into a fruit after fertilization**
- viii. **H. develops into a seed after fertilization**
- ix. **J .Attaches the flower top the stem/ branch**

c) How are petals adapted to their function?

They are brightly coloured

d) Why are petals brightly coloured?

To attract pollinators/ insect pollinators

e) How is the stigma adapted to its function?

It is broad and sticky

f) Why is the stigma sticky?

To trap pollen grains that fall on it

g) Name the part of a flower which protects it during the bud stage.

Sepals

h) What do we call a group of;

(i) Petals?

Corolla

(ii) Sepals?

Calyx

i) What do the following parts of a flower develop into after fertilization?

i. Ovules?

Seeds

ii. Ovary?

Fruit

iii. Flower stalk?

Fruit stalk

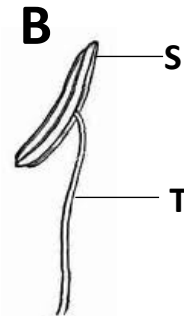
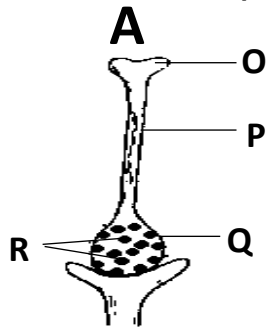
j) From which part of a flower do pomes develop?

Receptacle

k) Mention one plant whose fruits develop from the receptacle.

Apples // pias

l) Below are diagrams showing different parts of a flower. Study them carefully and use them to answer the following questions.



a) Name the part of a flower marked;

i) A **pistil** ii) B **stamen**

b) Which part of the part of a flower marked A develops into;

i) Seeds?

Part R

ii) Fruit?

Part Q

c) Apart from the ovary, give one other part of a flower which can develop into a fruit.

Receptacle

15. a) Why do bees visit flowers?

i. **To get nectar**

ii. **To get pollen**

b) How do bees benefit flowers?

Bees pollinate flowers

d) How do bees benefit from flowers?

I. Bees get nectar from flowers

II. Bees get pollen from flowers

e) How do flowers benefit from bees visiting them?

Flowers are pollinated by bees

f) Mention two substances "bees get from flowers

i. **Nectar**

ii. **Pollen**

g) Apart from the substances mentioned in e above, give one other substance bees get from plants.

Propolis

h) State any two importance of flowers to people.

I. Some flowers are eaten by people

II. Flowers are used for decoration

III. Flowers are used for machining perfume

IV. Flowers are used for making dye

i) How are flowers important during ceremonies?

They are used for decoration

j) How are flowers important in textile industries?

They are used for making dye for dyeing clothes

k) How are flowers important in the environment?

Flowers produce scent into the environment

l) Give one way nectar is important to bees

Bees use nectar for making honey

Bees feed on nectar

l) Give any two examples of;

i. External parts of a flower

Petals, sepals, flower stalk

ii. Internal parts of a flower

Ovary, ovules

End

Please stay home