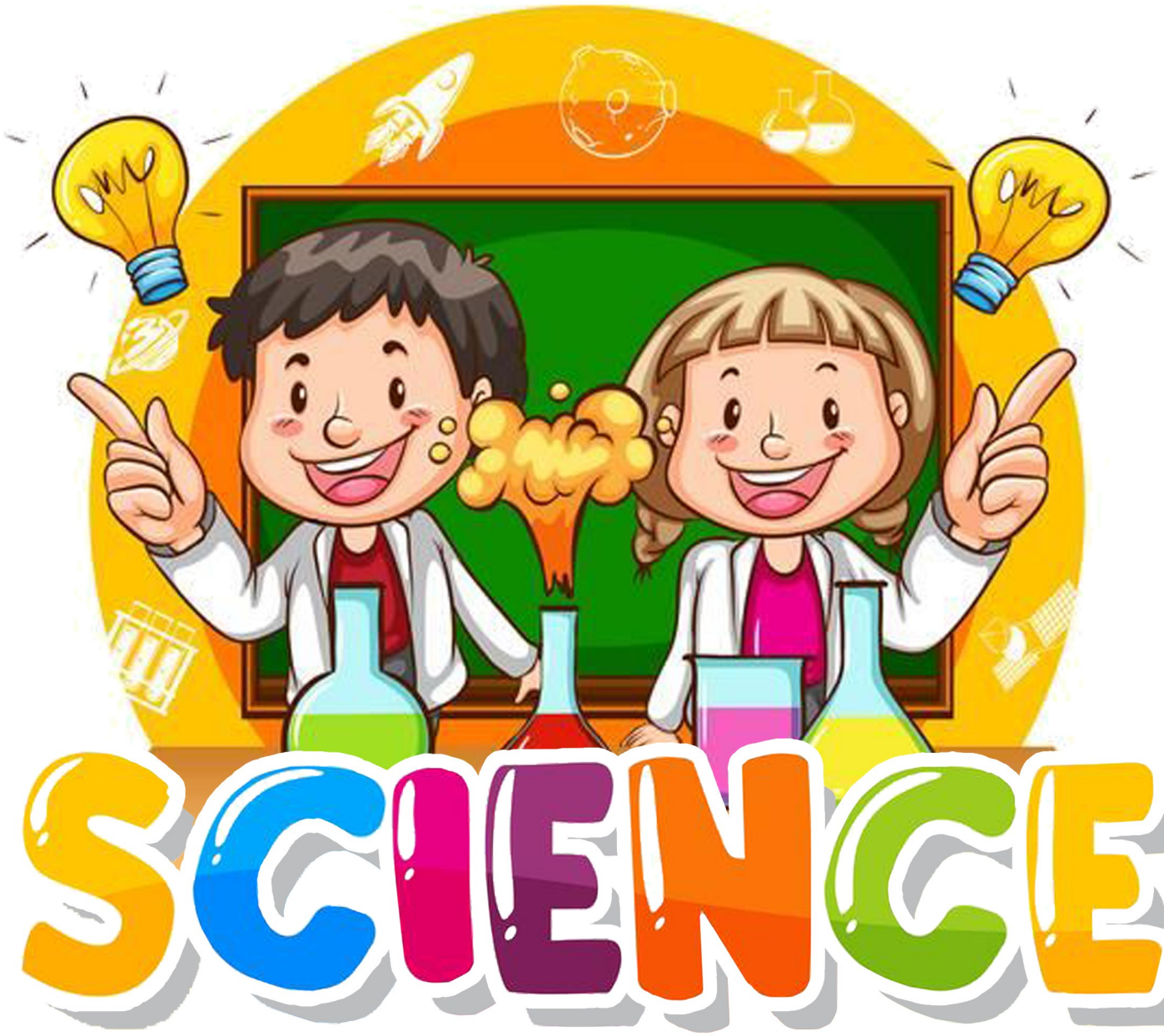
Grade 7



Ministry of Education

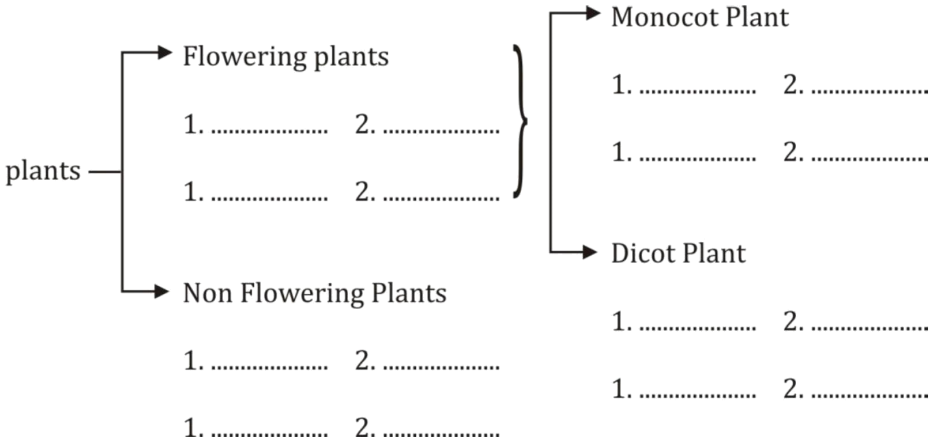
Self Study Pack – Science

Grade 7

Diversity of Plants

01. Supun is a student of grade 7. He has gone to the Botanical Garden with his family. Followings are his observations.

(i) Fill in the blanks.



(ii) Supun has divided the plants in to Monocot and Dicot. What is the characteristic which is used for this classification?

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(iii) Draw pictures to show the basic differences between main parts of dicot and monocot plants. Label the each part.

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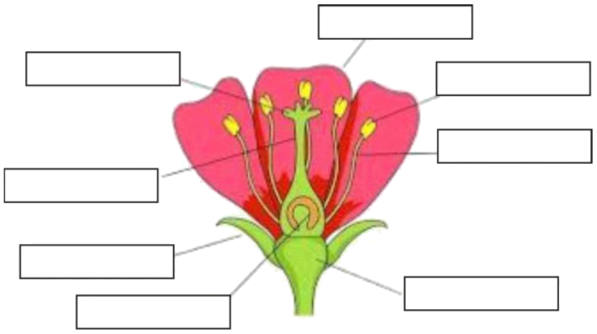
(iv) Complete table considering the differences between Monocot and Dicot plant.

Part	Monocot	Dicot
Root		
Stem		
Branches		
Leaves		
Flowers		

(v) Supun observed the parts of different plants and its functions with the help of his father. Fill in the blanks by considering the functions of given plant parts.

(A) Photosynthesis	☐	1. Root system
(B) Absorbing water	☐	2. Flower
(C) Baring all the parts	☐	3. Stem
(D) Reproduction	☐	4. Seed
(E) Keep the plant rigid	☐	5. Apical bud
(F) Growth of the plant	☐	6. Leaves

(vi) Identify the parts of flowers and name them.



(vii) Write the function of each part of the flower.

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(viii) Complete the following table, by drawing the Gynoecium and Androecium

Gynoecium	Androecium

(ix) Supun's father has explained that fruits are produced as a result of pollination.

(1) What is known as pollination.

(2) What do you mean by pollinating agents?

(3) Name the pollinating agents.

(x) Flowers in the botanical garden show different adaptations to pollinate. By different pollinating agents. Name the pollinating agent for the followings.

a. Flowers with sweet smell. .....

b. Flowers with colorful petals. .....

c. Flowers with large parts. .....

d. Light pollens. .....

e. Produce large number of pollens. .....

f. Not absorbing water to pollens. .....

g. Pollens flooting on water. .....

h. Flowers with nectar. .....

02. What are the changes of forming a fruit by a flower?

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03. Fruits and seeds naturally adapted for dispersion.

(a) What are the advantages of dispersing of fruits and seeds?

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(b) Complete the following table.

Plant	Dispersing method	Adaptaion
Cashey		
Wara		
Gammalu		
Hora		
Mango		
Coconut		
Kumbuk		
Kalanithissa		
Orchid		
Drumstic		
Koodalu		
Karalhaba		
Thuththiri		
Castor		
Paddy		
Tomato		
Nagadarana		
Lotus		

04. Leaves are main parts of the plant.

(1) What is the main function of plant leaves?

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(2) Draw and label a plant leaf.

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(3) What is known as leaf venation.

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(4) Complete the following table.

Parallel venation	Reticulate venation
Diagram	
Example 1 2 3	 1 2 3

(5) Define What is and give 3 examples a simple leaf. Draw a diagram of a simple leaf

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(6) The leaf blade of some simple leaves are partially divided in to segments. Mention examples with a diagram.

(7) What are known as compound leaves. Mention some examples and draw a diagram to show a compound leaf.

(8) Some leaves are adapted for special functions. Mention 2 examples for each adaptation given below.

(1) Vegetative propagation

(2) Store water

(3) Catching insects

05. Root systems is an essential part for the plant.

(1) There are two types of root systems. What are they?

(a) ..... (b) .....

(2) What is the main function of plant root?

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(3) Complete the following table.

Type of root	Example	Functions
Prop roots		
Still roots		
A erial roots		
Climbing roots		
Respiratory roots		
Storage roots		
Roots with root nodules		

(4) Corks used as stoppers of bottles are taken form “kirala”. Which part is used to make corks ?

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06. (1) The basic difference in any type of the stem is that whether the stem divides in to branches or not. Mention 5 examples for each.

(a) Branched Stem

(b) Unbranched stem

(2) What are the 2 main functions of plant stem ?

(a).....

(b).....

(3) Plant stems show several adaptaion. Mention 2 example for each adaptation.

(a) Photosynthesis

(b) Stroing food in aerial stems

(c) Storing food in underground stems

(d) Vegetative propagation

(e) Perennation