

Plants — Parts and Uses

Science · Class 3 · Topic-wise Practice Worksheet

TIME 40 minutes	QUESTIONS 15	TOTAL MARKS 21	MAX. SCORE ___ / 21
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Name: _____ Class/Sec: _____ Date: _____

INSTRUCTIONS

- There are **15 questions** in this worksheet. All questions are compulsory.
- Each question has four options (A), (B), (C) and (D). Exactly **one** option is correct.
- Questions 1–12 carry **1 mark** each. Questions 13–15 (Achievers Section) carry **3 marks** each.
- There is no negative marking. Study every diagram and table carefully.

Section A — Mathematical and Scientific Reasoning

Q1–Q8 · 1 mark each

- The process by which green plants make their own food is called _____.
 (A) Digestion (B) Photosynthesis
 (C) Respiration (D) Germination
- The green colouring matter in leaves is called _____.
 (A) Humus (B) Starch
 (C) Sap (D) Chlorophyll
- Which type of root system has one thick main root with smaller ones growing from it?
 (A) Tap root (B) Fibrous root
 (C) Prop root (D) Cling root
- Grass and wheat have many thin roots of about the same size. This is called a _____ root.
 (A) Tap (B) Fibrous
 (C) Storage (D) Climbing
- The tiny pores on the surface of a leaf through which gases move in and out are called _____.
 (A) Veins (B) Midribs
 (C) Stomata (D) Buds
- Which of these is an underground **stem** that we eat?
 (A) Carrot (B) Beetroot
 (C) Radish (D) Potato
- The sprouting of a seed into a new plant is called _____.
 (A) Germination (B) Pollination
 (C) Dispersal (D) Respiration
- The scattering of seeds away from the parent plant is called seed _____.
 (A) Germination (B) Dispersal
 (C) Digestion (D) Storage

9. In the table below, which row is **incorrectly** matched?

Row	Part of the plant	Its job
(A)	Root	Absorbs water and minerals
(B)	Stem	Carries water to the leaves
(C)	Leaf	Anchors the plant in soil
(D)	Flower	Makes seeds

Table 9.1 — Plant parts and their jobs

- (A) Row (A)
- (B) Row (B)
- (C) Row (C)
- (D) Row (D)

10. Which of these seeds is most likely to be carried away by **water**?

- (A) Xanthium (burr) (B) Dandelion
(C) Coconut (D) Maple

11. A cactus grows in the desert. Its leaves have become spines mainly to _____.

- (A) Store food
(B) Absorb more sunlight
(C) Attract insects
(D) Reduce the loss of water

12. Why do farmers add manure or fertiliser to their fields?

- (A) To give the soil the minerals that plants need
- (B) To make the soil heavier
- (C) To keep birds away
- (D) To make the field look neat

Achievers Section

Q13–Q15 · 3 marks each

13. Consider the following statements.

- (i) Plants take in carbon dioxide and give out oxygen during photosynthesis.
- (ii) A seed needs sunlight in order to germinate.
- (iii) All roots grow downwards into the soil.

Which of the statements is/are correct?

- (A) (i) only
(B) (i) and (ii) only
(C) (ii) and (iii) only
(D) All three

14. A potted plant is placed near a window so that light comes from one side only. After two weeks the shoot has bent towards the window. What does this show?

- (A) Roots grow towards light
(B) Shoots grow towards light
(C) Plants grow away from light
(D) Light has no effect on plants

15. Match each plant in Column I with the part we eat, given in Column II.

Column I	Column II
(P) Cauliflower	(1) Leaf
(Q) Sugarcane	(2) Root
(R) Spinach	(3) Flower
(S) Radish	(4) Stem

Table 15.1

(A) P-3, Q-1, R-4, S-2

(C) P-3, Q-4, R-1, S-2

(B) P-1, Q-2, R-3, S-4

(D) P-4, Q-3, R-1, S-2

Answer Key

1	B	2	D	3	A	4	B	5	C
6	D	7	A	8	B	9	C	10	C
11	D	12	A	13	A	14	B	15	C

Solutions

1. Answer: (B) Photosynthesis

Photosynthesis is the process in which leaves use sunlight, carbon dioxide and water to make food. It happens only in the green parts of a plant.

2. Answer: (D) Chlorophyll

Chlorophyll is the green pigment that traps sunlight so that the leaf can make food.

3. Answer: (A) Tap root

A **tap root** has one thick main root going straight down, with thinner side roots. Carrot, radish and mango have tap roots.

4. Answer: (B) Fibrous

A **fibrous** root system is a bunch of thin roots spreading out just below the surface. Grass, wheat, rice and maize all have fibrous roots.

5. Answer: (C) Stomata

Stomata are tiny openings, mostly on the underside of a leaf. Carbon dioxide enters and oxygen and water vapour leave through them.

6. Answer: (D) Potato

A **potato** is an underground stem. You can tell because it has buds — the 'eyes' from which new shoots grow. Roots never bear buds.

7. Answer: (A) Germination

Germination is the sprouting of a seed. A seed needs water, air and a suitable warmth to germinate.

8. Answer: (B) Dispersal

Seed **dispersal** spreads seeds away from the parent plant, so the new plants do not have to fight for light, water and space. Wind, water and animals all disperse seeds.

9. Answer: (C) Row (C)

It is the **root** that anchors the plant in the soil, not the leaf. A leaf makes food. The other three rows are matched correctly.

10. Answer: (C) Coconut

A **coconut** has a thick, light, air-filled husk, so it floats and can drift for long distances across the sea. Dandelion and maple seeds are carried by wind, and burrs stick to animal fur.

11. Answer: (D) Reduce the loss of water

Water escapes from the surface of a leaf, so a broad leaf would lose a great deal in the hot desert. Narrow spines have a very small surface, so they **reduce the loss of water**. The thick green stem makes the food instead.

12. Answer: (A) To give the soil the minerals that plants need

Growing crops use up the minerals in the soil. Manure and fertiliser **give the soil the minerals that plants need**, so the next crop can grow well.

13. Answer: (A) (i) only

Statement (i) is true. Statement (ii) is false — a seed germinates using the food already stored inside it, which is why seeds sprout perfectly well buried in dark soil. Statement (iii) is false; the prop roots of a banyan tree grow downwards from the branches, and some orchids have roots hanging in the air. Hence **(i) only**.

14. Answer: (B) Shoots grow towards light

The only light reaching the plant came from the window, and the shoot bent that way. This shows that **shoots grow towards light**, so that the leaves catch as much of it as possible. Roots do the opposite and grow downwards towards water and gravity.

15. Answer: (C) P-3, Q-4, R-1, S-2

Cauliflower is a tight bunch of unopened **flowers** (3). Sugarcane is the juicy **stem** (4). Spinach is eaten as **leaves** (1). Radish is an underground **root** (2). Hence P-3, Q-4, R-1, S-2.