Worksheet

Parts of a Plant

Name the following

Question 1:

- A large, thick root that grows straight down from a plant tap root
- Food factor y of the plants leaf
- Present in green leaves it helps to absorb sunlight chlorophyll
- A root system composed of a bunch of small, branching roots coming out from the end of the stem Fibrous root
- Plants with weak stem that need support to grow upright climber

Tips:

- Tap root is a straight tapering root which grows vertically down into soil and gives out branches on all the sides. Tap root is the main root and and the smaller, side roots are called lateral roots.
- The leaf is the part of the plant that produces food for the plant by the process of photosynthesis. The leaf has chlorophyll which gives the green color to the leaf. Chlorophyll makes food for the plant using carbon dioxide, water, nutrients, and sunlight.
- The chlorophyll inside the leaf absorbs light energy.
- Fibrous root systems have many small branching roots, called fibrous roots, but no large primary root. The huge number of threadlike roots increases the surface area for absorption of water and minerals, but fibrous roots anchor the plant less securely.
- The plants with weak stem need support to grow are called as a creeper or climber.

Choose the correct option

Question 2: Which of these plants has a taproot system?

(a) Rice

(b) Wheat

(c) Onion

(d) Mustard

Answer:

Correct Answer is Option D

An example of the taproot system is a mustard plant. In most of the dicotyledonous plants, the radicle directly elongates to form the 'primary root' which grows inside the soil. The primary root along with its branches constitutes the 'tap root system.

Question 3: Which of these is a root that stores food?

(a) Potato

(b) Turnip

(c) Ginger

(d) Sugar cane

Answer:

Correct Answer is Option B

In the turnips, the modified roots store the food.

These types of roots change their structure for adapting to the environment they grow. They can be further classified into seven types and the storage root is one of them in which the plants store food.

Question 4: All of these are leaves that store food, except

(a) cabbage

(b) broccoli

(c) spinach

(d) lettuce

Answer:

Correct Answer is Option B

Those plants that can store food in their leaves are -Cabbage, Lettuce, spinach etc. Some can store food in their stem like sugar cane.

Question 5: Which of these plants has a fibrous root system?

(a) Radish

(b) Onion

(c) Carrot

(d) Bean

Answer:

Correct Answer is Option B

Onions have a fibrous root system. A fibrous root system is the opposite of a taproot system. It is usually formed by thin, moderately branching roots growing from the stem.

Question 6: These are woody plants with thick and strong stems.

(a) Trees

(b) Climbers

(c) Shrubs

(d) Creepers

Answer:

Correct Answer is Option A

Trees are big and tall plants. They have very thick, woody and hard stems called the trunk.

Fill in the blanks

Question 7:

- Climbers need support to stand.
- Pumpkin is an example of creeper.
- Papaya has edible seeds.
- Roots is the part of the plant in the soil.
- oxygen gas is given out by the plant during the process of making food.

Tips:

- Plants that need support to stand erect are called climber. The climber plants need the support because of their thin and week stems. Many of these climbers stem twine round the trees.
- Creepers are plants with weak stem that grow along the ground, around another plant, or up a wall by means of extending stems or branches. They have very fragile stems that can neither stand erect nor support all of its

weight. The examples of creepers are watermelon, pumpkin, sweet potato, etc.

- These tiny round seeds are actually edible and are good for our health if consumed in limited quantity. Papaya seeds are black in colour and have a shiny, wet and slimy covering.
- Roots are the important and underground part of a plant, which are collectively called the root system. They are the major part that anchors the plant firmly in the soil. They absorb water and minerals from the soil, synthesise plant growth regulators, and store reserve food material.
- Their roots take up water and minerals from the ground and their leaves absorb a gas called carbon dioxide (CO_2) from the air and give out oxygen.

True & False

Question 8:

- A single thick root with many branches is a taproot. **(True)**
- Leaf is known as the kitchen of the plant. **(True)**
- All fruits have only one seed. **(False)**
- Fruit is not a part of the shoot. **(False)**
- Tiny tubes present in the leaf are called stomata. **(True)**

Match the following

Question 9:

(a) Stem	(i) This part is green and helps to produce food.
(b) Fruit	(ii) It is brightly coloured.
(c) Leaf	(iii) This part grows underground and absorbs water and minerals.
(d) Flower	(iv) This part bears branches and leaves.
(e) Root	(v) This part is formed from a flower.

Stem - This part bears branches and leaves.

The stem gives structural support to the plant. It bears branches, leaves, flowers and fruits. The stem carries water and minerals from the roots to different parts of the plant.

Fruit - This part is formed from a flower.

Fruits are produced only by flowering plants

Leaf - This part is green and helps to produce food.

Chlorophyll is a pigment that gives plants their green color, and it helps plants create their own food through photosynthesis.

Flower - It is brightly coloured.

This is because bright colors help attract these species and other animals, often enticing them to land on the flower.

Root - This part grows underground and absorbs water and minerals.

Roots are the important and underground part of a plant, which are collectively called the root system.They absorb water and minerals from the soil, synthesise plant growth regulators, and store reserve food material.

Answer the following questions in brief

Question 10: What is the difference between taproot and fibrous roots?

Answer:

- Taproot grows vertically downwards and thus reaches deep into the soil.
- The Taproot system anchors the plant more firmly than the fibrous root.
- The fibrous root grows horizontally in all directions and thus doesn't reach deep into the soil.
- Fibrous root system anchors are less efficient than taproot.

Question 11: What functions does a stem have? What are stomata?

Answer: The primary functions of the stem are to support the leaves; to conduct water and minerals to the leaves, where they can be converted into usable products by photosynthesis; and to transport these products from the leaves to other parts of the plant, including the roots.

Stomata are the tiny openings present on the epidermis of leaves. In some of the plants, stomata are present on stems and other parts of plants. Stomata play an important role in gaseous exchange and photosynthesis. They control the transpiration rate by opening and closing.

Question 12: Where is the food made by plants stored?

Answer: Plants make food in their leaves by the process called photosynthesis. The leaves contain a pigment called chlorophyll, which can make food for the plant using carbon dioxide, water, nutrients, and energy from sunlight. The main way that food is stored in plants is as starch.

Question 13: List some of the functions of the root.

Answer: The structure of roots helps them perform their primary functions. What do roots do? They have three major jobs: absorbing water and minerals, anchoring and supporting the plant, and storing food.

Question 14: Name the components required by leaves for making food.

Answer: Plants make food in their leaves. The leaves contain a pigment called chlorophyll, which colors the leaves green. Chlorophyll can make food the plant can use from carbon dioxide, water, nutrients, and energy from sunlight. This process is called photosynthesis.

Question 15: Label the following parts of a plant. Draw a similar picture in your notebook.