

G D GOENKA PUBLIC SCHOOL, MORENA
SCIENCE NOTES
CLASS-VI
Ch-5 (SEPARATION OF SUBSTANCES)

1. Why do we need to separate different components of a mixture? Give two examples.

Ans: Among different components of mixture there are many substances which are harmful or not useful for us. To remove these harmful or unuseful components we need to separate them. For example:

(a) Tea leaves are separated from the liquid with a strainer while preparing tea.

(b) Stone pieces from wheat, rice or pulses are picked out by hand.

2. What is winnowing? Where is it used?

Ans: Winnowing is used to separate heavier and lighter components of a mixture by wind or by blowing air. This process is used by farmers to separate lighter husk particles from heavier seeds of grain.

3. How will you separate husk or dirt particles from a given sample of pulses before cooking?

Ans: Husk or dirt particles can be separated by winnowing, being lighter they will fly away from pulses.

4. What is Sieving? Where can it be used?

Ans. Sieving is a process by which fine particles are separated from bigger particles by using a sieve. It is used in flour mill or at construction sites. In flour mill, impurities like husks and stones are removed from wheat. Pebbles and stones are removed from sand by sieving.

5. How will you separate sand and water from their mixture?

Ans. We will separate sand and water by sedimentation and decantation method. First we leave this mixture for some time. After some time, the sand which is; heavier is settled down at the bottom. After that we will pour water into another container and the mixture will be separated.

6. Is it possible to separate sugar mixed with wheat flour? If yes, how will you do it?

Ans. Sugar can be separated from wheat flour by sieving. Due to difference in the size of particles, sugar will stay on sieve and wheat flour will pass through it.

7. How would you obtain clear water from a sample of muddy water?

Ans. We will obtain clear water from a sample of muddy water by the process of filtration.

A filter paper is one such filter that has very fine pores in it. Figure 5.12(a, b) shows the steps involved in using a filter paper. A filter paper folded in the form of a cone is fixed in a funnel. The mixture is then poured on the filter paper. Solid particles in the mixture do not pass through it and remain on the filter.

8. Lemonade is prepared by mixing lemon juice and sugar in water. You wish to add ice to cool it.

Should you add ice to the lemonade before or after dissolving sugar ? In which case would it be possible to dissolve more sugar ?

Ans. We should add ice after dissolving sugar. When the temperature is high then more sugar can be dissolved. After mixing ice it gets cool and less sugar will dissolve in it.

Ch-6 (Changes Around Us)

1. To walk through a waterlogged area, you usually shorten the length of your dress by folding it. Can this change be reversed?

Ans: Yes, it can be reversed by unfolding the dress.

2. You accidentally dropped your favourite toy and broke it. This is a change you did not want. Can this change be reversed?

Ans: No, this change (breaking of toy) cannot be reversed.

3. A drawing sheet changes when you draw a picture on it. Can you reverse this change?

Ans: No, we cannot get fresh drawing sheet once a picture is drawn on it with paint/ oil or water. However, we can reverse the change, if soft pencil is used to draw the picture.

4. Give examples to explain the difference between changes that can or cannot be reversed.

Ans: Examples of reversible and irreversible changes

Reversible change	Irreversible change
Boiling of water	Cooking of food
Dissolution of sugar in water	Burning of wood
Melting of ice-cubes	Ripening of fruits
Melting of butter	Chopping of wood

5. A thick coating of a paste of Plaster of Paris (POP) is applied over the bandage on a fractured bone. It becomes hard on drying to keep the fractured bone immobilised. Can the change in POP be reversed?

Ans: No, the change in POP cannot be reversed since it is a chemical change.

6. A bag of cement lying in the open gets wet due to rain during the night. The next day the sun shines brightly. Do you think the changes, which have occurred in the cement, could be reversed?

Ans. No, these are irreversible chemical changes.

Ch-7 (GETTING TO KNOW PLANTS)

1. Correct the following statements and rewrite them in your notebook.

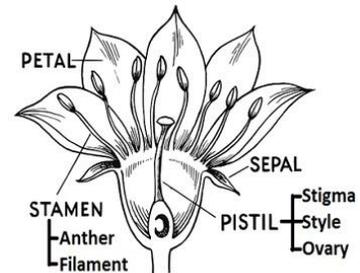
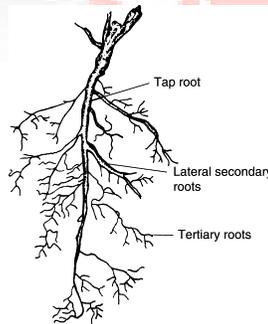
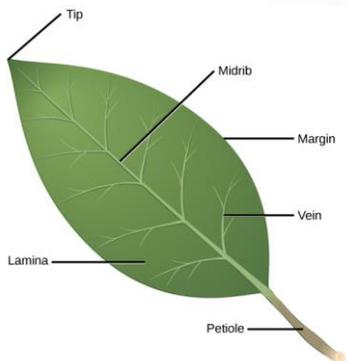
(a) Stem absorbs water and minerals from the soil.

- (b) Leaves hold the plant upright.
- (c) Roots conduct water to the leaves.
- (d) The number of sepals and petals in a flower is always equal.
- (e) If the sepals of a flower are joined together, its petals are also joined together,
- (f) If the petals of a flower are joined together, then the pistil is joined to the petal.

Ans:

- (a) Roots absorb water and minerals from the soil.
- (b) Roots hold the plant upright.
- (c) Stem conducts water to the leaves.
- (d) The number of petals and sepals in a flower is usually equal.
- (e) If the sepals of a flower are joined together, its petals are not necessarily joined together.
- (f) If the petals of a flower are joined together, then the pistil is not necessarily joined to the petal.

2. Draw (a) a leaf, (b) a tap root and (c) a flower, you have studied for Table 7.3 of the textbook.



Ans:

3. Can you find a plant in your house or in your neighborhood which has a long but a weak stem? Write its name. In which category would you classify it?

Ans: Yes, we find a money plant in our house. It is a climber.

4. What is the function of a stem in a plant?

Ans: A stem performs following functions:

- (i) The stem and its branches hold leaves to get maximum sunlight.
- (ii) It transports water from roots to different parts of the plant.
- (iii) It transports food from leaves to different parts of the plant.

(iv) It bears leaves, flowers and fruits

5. Which of the following leaves have reticulate venation?

Wheat, tulsi, maize, grass, coriander (dhania), china rose.

Ans: Tulsi, china rose.

6. If a plant has fibrous root, what type of venation are its leaves likely to have?

Ans: Parallel venation.

7. If a plant has leaves with reticulate venation, what kind of roots will it have?

Ans: Tap root.

8. Is it possible for you to recognise the leaves without seeing them? How?

Ans: We cannot exactly recognise the leaves without seeing them. We may be able to have some idea by touching and smelling them.

9. Write the names of the parts of a flower in sequence, from outside to inside.

Ans: The names of various parts of a flower from outside to inside are:

(i) Sepals

(ii) Petals

(iii) Stamens

(iv) Pistil

10. Name the part of the plant which produces its food. Name this process.

Ans: Leaves produce food for the plant. This process is called photosynthesis.

11. In which part of a flower you are likely to find the ovary?

Ans: We find ovary in pistil. It is the lowermost part of the pistil.

12. Name two flowers, each with joined and separate sepals.

Ans:

Flowers with joined sepals:

(i) Datura

(ii) Loki

Flowers with separate sepals:

(i) Gurhal

(ii) Mustard



Ch-8 (BODY MOVEMENTS)

1. What are joints? Write the names of various types of joints.

Ans: The places where two parts of the body seem to be joined together are called joints. There are following types of joints:

Ball and socket joints

Pivotal joints

Hinge joints

Fixed joints

Gliding joints

2. What is skeleton? Draw a diagram to show the human skeleton.

Ans: The bones in our body form a framework to give a shape to the body. The framework is called skeleton

3. Write two ways by which we may know the shape of human skeleton.

Ans:

- (i) We can know the shape of skeleton by feeling.
- (ii) We could know the shape by X-ray images of human body

4: Write the differences between bones and cartilage.

Ans:

Bone

Cartilage

(i) They are hard.

(i) They are soft.

(ii) They cannot bend.

(ii) They can bend.

(iii) They are used to make the framework of whole body. (iii) They help to make some parts of the body.

5. How do the muscles work?

Ans: The muscles work in pairs. When one of them contracts, the bone is pulled in that direction, the other muscle of the pair relaxes. To move the bone in the opposite direction, the relaxed muscle contracts to pull the bone towards its original position, while the first relaxes. A muscle can only pull. It cannot push.

6. How does the earthworm move?

Ans: Earthworm does not have bones. It has muscles. During the movement, earthworm first extends front part of the body keeping the rear portion fixed to the ground. Then it fixes the front and releases

the rear end. It then shortens the body and pulls the rear end forward. In this way by repeating such muscular expansions and contractions earthworm moves.

7. How does the snail move?

Ans: The rounded structure on the back of the snail is called shell. It is the outer skeleton (exoskeleton) of snail. When it starts moving a thick structure and the head of the snail may come out of an opening in the shell. The thick structure is called foot, which is made up of strong muscles. It helps snail in moving.

8. How does fish move in water?

Ans: The body of fish is streamlined. The streamlined shape helps the fish to move in water. The skeleton of fish is covered with muscles which make the front part of the body to curve to one side and the tail part swings towards the opposite side. This makes a jerk and pushes the body forward. In this way it moves in water.

9. Explain various kinds of joints found in our body and give example of each.

Ans: There are five types of joints in our body:

(i) Fixed joints: Those joints which do not allow movement are called fixed joint.

(ii) Ball and socket joint: This joint allows movement in all directions. The rounded end of one bone fits into the hollow space of other bone. For example, joint between upper arm and shoulder.

(iii) Pivotal joint: This type of joint allow movement in all planes, i.e. up and down, side and other planes. For example, head.

(iv) Hinge joint: The joint which allows movement only in one plane is called hinge joint. For example, fingers, knees.

(v) Gliding joint: These joints allow only a limited amount of movement of sliding nature of cartilage. For example, the joints of backbone.