

Chemistry Worksheets Class 7 on Chapter 16 Water A Precious Resource with Answers- Set 2

Q1. Which of the following source cannot be used for drinking purposes?

- a.) Sea water
- b.) Glacier
- c.) Ground Water
- d.) Rainwater

Correct Answer– (a.) Sea water

Q2. The process by which the evaporated water returns to the earth is:

- a.) Condensation
- b.) Sublimation
- c.) Precipitation
- d.) Runoff

Correct Answer– (c.) Precipitation

Q3. Which of the following is an example of surface water?

- a.) Oceans
- b.) Lakes
- c.) Rivers
- d.) All of the above

Correct Answer– (d.) All of the above

Q4. Water exists in which state?

- a.) Solid
- b.) Liquid
- c.) Gas
- d.) All of the above

Correct Answer– (d.) All of the above

Q5. The large well like structure which is used in olden times for rainwater harvesting is called–

- a.) well
- b.) bawris
- c.) dams
- d.) reservoir

Correct Answer– (b.) bawris

Q6. Fill in the blanks:

- a.) There are ____ forms of water.
- b.) The percent of the total water on the earth that is actually available for our use is ____.
- c.) The process of changing of water into its vapour/gaseous form is called ____.

Answer.

- a.) There are three forms of water.
- b.) The percent of the total water on the earth that is actually available for our use is 0.06.
- c.) The process of changing water into its vapour/gaseous form is called evaporation.

Q7. State True or False.

- a.) Plants release water through transpiration.
- b.) 22 May is celebrated as world water day.
- c.) The only source of fresh water is rain.

Answer.

- a.) True
- b.) False
- c.) False

Q8. Define precipitation.

Answer. The sun's heat vaporises water into vapour. This vapour cools down and condenses to become clouds. This may then fall on the surface of Earth in the form of rain, snow or sleet. This phenomenon of water falling back onto the earth's surface in the form of rain, snow or sleet is called precipitation.

Q9. What are the three forms of water?

Answer. Water in nature exists in three forms:

- As solid- In solid, water exists as snow and ice.
- As liquid– In liquid, water exists as water.
- As gas– In gaseous form, it exists as water vapour.

Q10. What is water management?

Answer. Water management is the activity of moving and controlling water resources to minimise damage to property and life while also maximising efficient, beneficial use. Water management is the process of developing, optimising, and planning water resources through various practices governed by various policies and regulations.

When water is managed properly in dams and levees, the risk of flooding is reduced.

Q11. Explain how planting trees help in the conservation of water?

Answer. The roots of plants and trees hold the soil tightly, and they slow the flow of rainwater on land and improve its absorption by the soil. As a result, if we plant more trees, the soil will absorb more rainwater, preserving groundwater.

Q12. Write a short note on groundwater.

Answer. Wells, tube wells, and handpumps are some of the sources of water. Groundwater is present in these sources. The upper level of underground water fills all available spaces in the soil and rocks to form a water table.

The water table is the upper limit of groundwater. It denotes the depth of a water-filled area at a given location. The amount of rainwater that seeps into the groundwater and how much groundwater is drawn out for irrigation and industry cause the water table to rise and fall. Infiltration is the process by which rainwater seeps into the groundwater. This process thus recharges the groundwater.

Groundwater is sometimes stored beneath the water table between layers of hard rock. This is the aquifer that contains the groundwater that tube wells and handpumps can access. These sources, however, have limited water supplies and may become depleted if used excessively.

Q13. Why is the water table lowering rapidly?

Answer. The water table is lowering rapidly because of the following reasons:

- i.) Increasing population– The growing population increases demand for the construction of houses, shops, offices, roads, and sidewalks. This reduces the amount of open space. This, in turn, reduces rainwater seepage into the ground. Water cannot easily penetrate a cemented floor.
- ii.) Deforestation– Transpiration allows forests to transport large amounts of water into the atmosphere. As a result of the deforestation, there is no rain in that area, which flows away as river water and causes permanent drying.
- iii.) Industrialisation– All industries rely on water. Almost everything we use requires water at some point in its manufacturing process. The number of industries is constantly growing. The majority of industries get their water from the ground.
- iv.) Overpumping of groundwater– The groundwater can be obtained through drilling, digging, or pumping. Overpumping of groundwater reduces its level. Excessive pumping along the coast can cause saltwater to move inland and upward, contaminating the water supply.

Q14. How are clouds formed?

Answer. Clouds are tiny droplets of water or crystals of ice that float in the air.

Air gets moist due to the process of evaporation that takes place by the sun. This moist air rises from the surface of the earth and progresses higher and becomes cooler furthermore. At much higher levels, water vapour present in the air condenses to form droplets. These droplets remain in the air and appear to us as clouds.

After reaching a point in the atmospheric air, droplets stop rising further. Dewdrops in the sky, then come together and form large water droplets – a cluster of water molecules, which are called clouds. Once these clouds get heavier, they fall to the ground as precipitation which we call rains.

Q15. Explain the importance of water for plants.

Answer. Plants require water for various activities. Some of the importance of plants are as follows:

- i.) Water is required by plants for food preparation, germination, and growth in order to produce fruits, flowers, and so on.
- ii.) For translocation of food prepared by plants to other parts of the plant.
- iii.) Water is home to a large number of plants. Water is essential for their survival because it provides nutrients and oxygen. Crops require water to grow.
- iv.) Rain washes away the dust and smoke deposited on leaves by vehicles and aids the stomata in exchanging gases.

Q16. Write short notes on:

- a.) Aquifer
- b.) Drip irrigation

Answer.

a.) Groundwater is sometimes stored between layers of hard rock. This is known as an aquifer. Aquifer water is pumped and extracted using hand pumps and tube wells.

b.) Drip irrigation is a cost-effective method of water use. This technique involves allowing water to drip slowly to the roots of plants, either above the soil surface or buried below the surface, in order to save water and nutrients. The goal is to direct water into the root zone while minimising evaporation. Drip irrigation systems use a network of valves, pipes, tubing, and emitters to distribute water.

Q17. Explain the process of the water cycle.

Answer. The water cycle is the continuous movement of water on, above, and beneath the Earth's surface.

The processes involved in the water cycle are as follows:

- i.) Evaporation

The sun is the ultimate source of energy, and it drives the majority of evaporation on Earth. In this process, the water from the earth's water bodies evaporates, changing its state from liquid to water vapour.

ii.) Transpiration - Plants take in water from the soil to prepare their own food and also for other life processes. They release excess water into the air in the form of water vapour by the process of transpiration.

iii.) Condensation - The evaporated water moves higher from the surface of the Earth, where it starts to cool down. This water vapour condenses to form tiny water droplets, which float in the air to form clouds or fog.

iv.) Precipitation - All these droplets collect in the clouds, and when clouds become heavy, this water comes down as rain by the process of precipitation. If the air is too cold, the water drops can become snow or hail and may settle on the top of a mountain.

v.) Surface run-off – Some rainwater is absorbed by the soil and settles down as groundwater. Most of the rainwater flows down the hills and mountains to collect into rivers, lakes or streams.

Q18. Explain why the water cycle is important?

Answer. Water is required for the survival of all living and nonliving organisms. The water cycle is a critical process because it ensures that water is available to all living organisms and regulates weather patterns on our planet. Water that falls on land collects in rivers and lakes, soil, and porous rock layers, and much of it flows back into the oceans to evaporate.

Q19. What is rainwater harvesting?

Answer. Rainwater harvesting is the process of collecting and storing rainwater for later use rather than letting it runoff. The rainwater harvesting system is one of the most effective and widely used methods for water conservation. The main source of concern at the present time is the scarcity of high-quality water. However, pure and high-quality rainwater can be used for irrigation, washing, cleaning, bathing, cooking, and other livestock needs.

Rainwater harvesting techniques include the following:

i.) Rooftop rainwater harvesting entails using the rooftop as catchments to collect rainwater from the building and houses.

ii.) Surface runoff harvesting is a system that collects rainwater that otherwise would flow away as surface runoff. Rainwater runoff is collected and reused to recharge aquifers by adopting appropriate techniques.

Q20. Explain some methods to conserve water.

Answer. There are several methods for conserving water. Here are some important and simple water conservation methods.

- When not in use, keep the tap closed.
- Examine the water distribution pipes for any cracks or leaks.
- Make sure to use rainwater collected for gardening or washing.

- Always track how many buckets of water are wasted in a day and strive to reduce it.
- When washing and cleaning clothes, utensils, and other items, do not use more water than is necessary.
- Do not linger in the tub. Instead of wasting buckets of water, take a quick shower.
- Rainwater harvesting is one of the most effective methods of water conservation. Rainwater can be saved in a variety of ways rather than being wasted.

