

Natural Resources and Our Environment

Science · Class 5 · Topic-wise Practice Worksheet

TIME 40 minutes	QUESTIONS 18	TOTAL MARKS 24	MAX. SCORE ___ / 24
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Name: _____ Class/Sec: _____ Date: _____

INSTRUCTIONS

- There are **18 questions** in this worksheet. All questions are compulsory.
- Each question has four options (A), (B), (C) and (D). Exactly **one** option is correct.
- Questions 1–15 carry **1 mark** each. Questions 16–18 (Achievers Section) carry **3 marks** each.
- There is no negative marking. Do not use a calculator.
- Study every diagram and table carefully before answering.

Section A — Resources Around Us

Q1–Q7 · 1 mark each

- Which of the following is **not** a natural resource?

(A) Plastic chair	(B) Soil
(C) Air	(D) Coal
- Which gas is present in the largest amount in air?

(A) Nitrogen	(B) Water vapour
(C) Carbon dioxide	(D) Oxygen
- Which of these is a **non-renewable** resource?

(A) Sunlight	(B) Wind
(C) Petroleum	(D) Flowing water
- The uppermost layer of soil, which is dark and rich in humus, is called _____.

(A) Bedrock	(B) Subsoil
(C) Gravel	(D) Topsoil
- The three R's that help protect the environment are _____.

(A) Reduce, Reuse, Recycle	(B) Read, Write, Repeat
(C) Rain, River, Rock	(D) Remove, Replace, Rebuild
- Burning of coal, petrol and diesel mainly causes _____ pollution.

(A) Noise	(B) Air
(C) Soil	(D) Sound
- About how much of the earth's surface is covered by water?

(A) About one-fourth	(B) About half
(C) About three-fourths	(D) Almost all of it

8. The diagram shows the water cycle. At which labelled stage does water vapour **cool down and change into tiny droplets**?

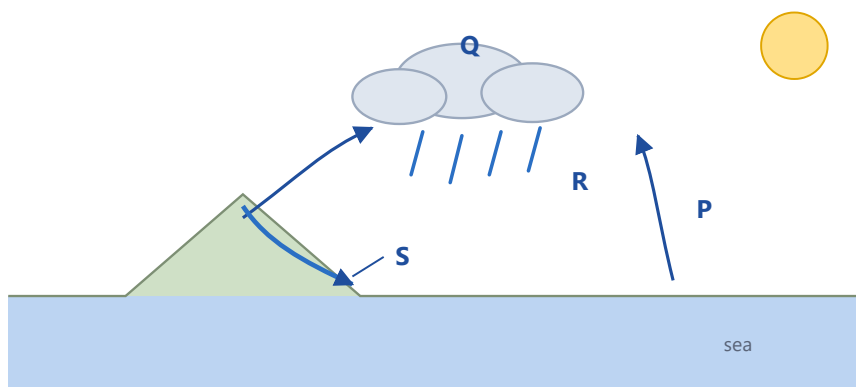


Fig. 8.1 — The water cycle

- (A) P
(B) Q
(C) R
(D) S
9. **Assertion (A):** Rainwater harvesting increases the total amount of rain that falls on a region.
Reason (R): Harvested rainwater soaks into the ground and recharges the water table.
 Choose the correct option.
- (A) Both A and R are true, and R explains A
(B) Both A and R are true, but R does not explain A
(C) A is true but R is false
(D) A is false but R is true
10. The main purpose of rainwater harvesting is to _____.
 (A) Stop rivers from flowing
(B) Increase the amount of rainfall
(C) Make rainwater salty
(D) Collect rainwater and recharge the groundwater instead of letting it run away
11. In the table below, which row is **incorrectly** matched?

Row	Type of pollution	A common cause
(A)	Water pollution	Factory waste let into rivers
(B)	Noise pollution	Loudspeakers and vehicle horns
(C)	Soil pollution	Planting more trees
(D)	Air pollution	Smoke from burning rubbish

Table 11.1 — Kinds of pollution

- (A) Row (A)
(B) Row (B)
(C) Row (C)
(D) Row (D)
12. Which of the following waste materials is **non-biodegradable**?
- (A) A plastic carry bag
(B) Vegetable peels
(C) Paper
(D) Cow dung

13. The pie chart shows the composition of clean, dry air. Which gas does the sector marked **P** represent?

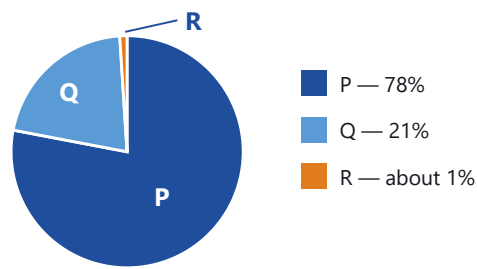


Fig. 13.1 — Composition of clean dry air

- (A) Oxygen
(B) Nitrogen
(C) Carbon dioxide
(D) Water vapour
14. In many cities, wells and tube wells are running dry. The most likely reason is that _____.
(A) Rain has stopped falling completely
(B) Wells have become too deep
(C) Groundwater is being pumped out much faster than it is being refilled
(D) Water has changed into air
15. The ozone layer high up in the atmosphere is important because it _____.
(A) Supplies oxygen for breathing
(B) Reflects sound waves
(C) Produces rain
(D) Absorbs harmful ultraviolet rays coming from the sun

Achievers Section

Q16–Q18 · 3 marks each

16. Consider the following statements.
(i) All the water on the earth is fit for drinking.
(ii) Deforestation increases the amount of carbon dioxide in the air.
(iii) Sunlight, wind and flowing water are all renewable sources of energy.
Which of the statements is/are correct?
(A) (i) and (ii) only
(B) (ii) and (iii) only
(C) (i) and (iii) only
(D) All three
17. Two identical trays of soil are tilted at the same angle. Tray X is bare, while tray Y is covered with growing grass. The same amount of water is poured over each tray, and the water running off is collected. The water from tray X is muddy and the water from tray Y is almost clear. Which conclusion is best supported?
(A) Plant cover reduces the loss of soil by running water
(B) Grass makes water dirty
(C) Bare soil absorbs more water than grass-covered soil
(D) The angle of a slope has no effect on erosion

18. Match each practice in Column I with the resource it chiefly helps to conserve, given in Column II.

Column I	Column II
(P) Using a bucket instead of a shower	(1) Forests and trees
(Q) Recycling old newspapers	(2) Fossil fuels
(R) Cycling to school instead of going by car	(3) Water
(S) Making compost from kitchen waste	(4) Soil fertility

Table 18.1

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

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

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

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

Answer Key

1	A	2	A	3	C	4	D	5	A
6	B	7	C	8	B	9	D	10	D
11	C	12	A	13	B	14	C	15	D
16	B	17	A	18	B				

Solutions

1. Answer: (A) Plastic chair

Natural resources are materials obtained directly from nature — air, water, soil, minerals and fuels. A plastic chair is made by people in a factory, so it is a man-made product, even though the plastic itself comes from petroleum.

2. Answer: (A) Nitrogen

Air is about 78% nitrogen and only about 21% oxygen. Carbon dioxide, water vapour and other gases together make up the remaining 1% or so.

3. Answer: (C) Petroleum

Petroleum took millions of years to form under the earth, so once it is used up it cannot be replaced within our lifetime. Sunlight, wind and flowing water are constantly renewed by nature.

4. Answer: (D) Topsoil

Topsoil is the top layer, made dark and fertile by humus — the decayed remains of plants and animals. Plants send most of their roots into this layer because it holds the nutrients and water they need.

5. Answer: (A) Reduce, Reuse, Recycle

Reduce means using less in the first place, reuse means using an item again instead of throwing it away, and recycle means turning waste into new products. Reducing is the most effective of the three because it prevents the waste from ever being made.

6. Answer: (B) Air

Burning fuels releases smoke, carbon dioxide, carbon monoxide and other harmful gases into the atmosphere, making the air unfit to breathe. This is the biggest single cause of air pollution in cities.

7. Answer: (C) About three-fourths

Roughly 71% — about three-fourths — of the earth's surface is water, which is why the earth is called the blue planet. However, over 97% of that water is salty sea water, so only a very small part is fit for drinking.

8. Answer: (B) Q

Q labels the cloud. Water vapour rising from the sea cools as it goes higher, and the vapour condenses into countless tiny water droplets that together form a cloud. P is evaporation from the sea, R is rainfall (precipitation) and S is the river carrying water back to the sea.

9. Answer: (D) A is false but R is true

A is false. Rainwater harvesting only collects and stores the rain that already falls — it cannot make more rain fall. R is true: water led into pits and recharge wells seeps down and raises the water table. So A is false but R is true.

10. Answer: (D) Collect rainwater and recharge the groundwater instead of letting it run away

In rainwater harvesting, rain falling on rooftops and open ground is collected in tanks or led into pits so that it soaks into the earth. This stores water for later use and refills the underground water that wells and tube wells draw from. It cannot change how much rain actually falls.

11. Answer: (C) Row (C)

Planting trees **improves** the soil rather than polluting it. Soil pollution is caused by excessive chemical fertilisers and pesticides, and by dumping plastic and industrial waste on land. The other three rows are correctly matched.

12. Answer: (A) A plastic carry bag

Biodegradable waste is broken down by bacteria and fungi into simple, harmless substances. Vegetable peels, paper and cow dung rot away in weeks or months. A plastic bag is non-biodegradable — it may lie in the soil for hundreds of years without decaying.

13. Answer: (B) Nitrogen

P covers 78% of the chart, and nitrogen makes up about 78% of air. Q (21%) is oxygen, and R (about 1%) stands for carbon dioxide together with the other minor gases. Although we need oxygen to breathe, it is not the most plentiful gas in air.

14. Answer: (C) Groundwater is being pumped out much faster than it is being refilled

Groundwater is refilled slowly, as rain soaks down through the soil. In cities, concrete roads and buildings stop rain from soaking in, while millions of pumps draw water out every day. Because withdrawal is far faster than recharge, the water table keeps falling and wells dry up.

15. Answer: (D) Absorbs harmful ultraviolet rays coming from the sun

Ozone forms a thin shield in the upper atmosphere that soaks up most of the sun's ultraviolet radiation, which would otherwise cause skin cancer and damage crops. It is not the source of the oxygen we breathe — that comes from green plants.

16. Answer: (B) (ii) and (iii) only

Statement (i) is false — over 97% of the earth's water is salty sea water and much of the rest is locked up as ice, so only a tiny fraction is drinkable. Statement (ii) is true; trees absorb carbon dioxide during photosynthesis, so cutting them down leaves more of it in the air. Statement (iii) is true. Hence (ii) and (iii).

17. Answer: (A) Plant cover reduces the loss of soil by running water

The only difference between the two trays is the grass cover, so the difference in the result must be due to it. Muddy water means soil is being carried away; clear water means it is staying put. The grass roots bind the soil and the leaves break the force of the falling water, so far less soil is washed away. This is why terraced fields and hillsides are kept under vegetation.

18. Answer: (B) P-3, Q-1, R-2, S-4

A bucket bath uses far less water than a shower, so it saves water (3). Paper is made from wood pulp, so recycling newspapers saves trees (1). Cycling burns no petrol, saving fossil fuels (2). Compost returns nutrients to the soil and reduces the need for chemical fertilisers, conserving soil fertility (4). Hence P-3, Q-1, R-2, S-4.