

Air, Water and Weather

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 — Scientific Reasoning

Q1–Q8 · 1 mark each

- Which gas of the air do living things use for breathing?

(A) Oxygen

(B) Nitrogen

(C) Carbon dioxide

(D) Water vapour
- Green plants take in which gas during photosynthesis?

(A) Oxygen

(B) Hydrogen

(C) Nitrogen

(D) Carbon dioxide
- The change of water into water vapour on heating is called _____.

(A) Evaporation

(B) Condensation

(C) Freezing

(D) Melting
- At what temperature does water freeze?

(A) 50 °C

(B) 10 °C

(C) 0 °C

(D) 100 °C
- Which of these is the main cause of **air pollution** in cities?

(A) Planting trees

(B) Sea breeze

(C) Rainfall

(D) Smoke from vehicles and factories
- Which instrument is used to measure temperature?

(A) Thermometer

(B) Barometer

(C) Rain gauge

(D) Anemometer
- Water fit for drinking is called _____ water.

(A) Salty

(B) Potable

(C) Hard

(D) Muddy
- Roughly what fraction of the earth's surface is covered by water?

(A) One-fourth

(B) One-half

(C) Three-fourths

(D) Almost all

9. The diagram shows the water cycle. At which labelled stage does water vapour cool and turn into tiny droplets?

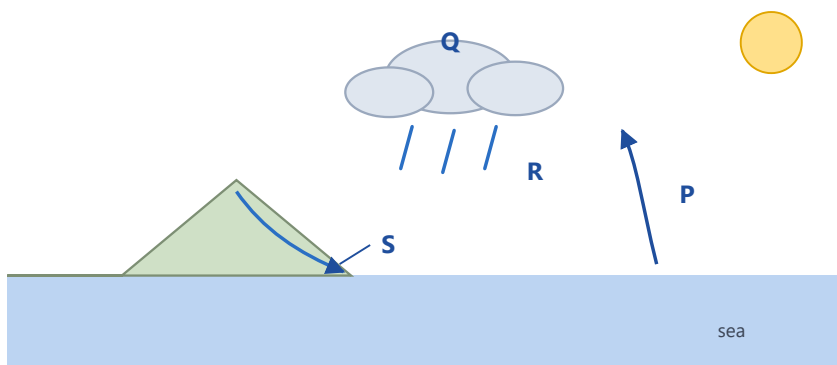


Fig. 9.1 — The water cycle

- (A) P
(B) Q
(C) R
(D) S
10. In the table below, which row is **incorrectly** matched?

Row	Process	What happens
(A)	Evaporation	Liquid changes into vapour
(B)	Condensation	Vapour changes into liquid
(C)	Freezing	Liquid changes into gas
(D)	Melting	Solid changes into liquid

Table 10.1 — Changes of state

- (A) Row (A)
(B) Row (B)
(C) Row (C)
(D) Row (D)
11. Wet clothes dry fastest on a day that is _____.
(A) Warm with no breeze
(B) Cold, damp and still
(C) Cool and rainy
(D) Hot, dry and windy
12. Why should drinking water be boiled during the rainy season?
(A) Boiling kills the disease-causing germs in it
(B) Boiling adds minerals to it
(C) Boiling makes it sweeter
(D) Boiling removes its colour

Achievers Section

Q13–Q15 · 3 marks each

13. Consider the following statements.
(i) Air has weight and takes up space.
(ii) Evaporation takes place only at the boiling point.
(iii) Sea water can be made drinkable by evaporating it and collecting the vapour.
Which of the statements is/are correct?
- (A) (i) and (ii) only
(B) (i) and (iii) only
(C) (ii) and (iii) only
(D) All three

14. An empty bottle is pushed mouth-first straight down into a bucket of water. Very little water enters the bottle. What is the best explanation?
- (A) The bottle is too narrow
 - (B) The bottle is already full of air, which takes up space
 - (C) Water is too heavy to rise
 - (D) Glass repels water
15. Why do many towns build check dams and rainwater harvesting pits?
- (A) To increase the amount of rainfall
 - (B) To make the water salty
 - (C) To slow the rain water down so that it soaks in and refills the groundwater
 - (D) To stop rivers from flowing

Answer Key

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

Solutions

1. Answer: (A) Oxygen

Living things take in **oxygen** to release energy from their food. Air is mostly nitrogen, but that gas is not used in breathing.

2. Answer: (D) Carbon dioxide

Leaves take in **carbon dioxide** through their stomata and give out oxygen. This is the reverse of what happens when we breathe.

3. Answer: (A) Evaporation

Evaporation is the change from liquid to vapour. The reverse change, vapour to liquid, is condensation.

4. Answer: (C) 0 °C

Water freezes into ice at **0 °C**. It boils at 100 °C.

5. Answer: (D) Smoke from vehicles and factories

Smoke from vehicles and factories releases harmful gases and tiny dust particles into the air, making it unfit to breathe.

6. Answer: (A) Thermometer

A **thermometer** measures how hot or cold something is. A rain gauge measures rainfall and an anemometer measures wind speed.

7. Answer: (B) Potable

Potable water is clean, free of germs and safe to drink. Water is made potable by boiling, filtering or treating it.

8. Answer: (C) Three-fourths

About **three-fourths** of the earth's surface is water, which is why it is called the blue planet. Almost all of it, though, is salty sea water.

9. Answer: (B) Q

Q labels the cloud. Water vapour rising from the sea cools as it climbs, and condenses into countless tiny droplets that together form a cloud. P is evaporation, R is rainfall and S is the river running back to the sea.

10. Answer: (C) Row (C)

Freezing is a liquid changing into a **solid**, not into a gas. Water freezes into ice at 0 °C. The other three rows are correct.

11. Answer: (D) Hot, dry and windy

Evaporation speeds up when it is hot (particles gain energy), dry (the air can take up more vapour) and windy (the vapour is carried away). A **hot, dry, windy** day gives all three at once.

12. Answer: (A) Boiling kills the disease-causing germs in it

Rain washes germs from the ground into wells and pipelines. **Boiling kills those germs** and prevents diseases such as cholera, typhoid and diarrhoea.

13. Answer: (B) (i) and (iii) only

Statement (i) is true — an inflated balloon weighs slightly more than an empty one, and air keeps water out of an upturned glass. Statement (ii) is false; a wet floor dries at room temperature, well below boiling point. Statement (iii) is true; the salt is left behind and the collected vapour condenses into pure water. Hence **(i) and (iii)**.

14. Answer: (B) The bottle is already full of air, which takes up space

The bottle only looks empty — it is **already full of air, which takes up space**. The trapped air has nowhere to escape, so it keeps the water out. Tilting the bottle lets bubbles escape and water then rushes in.

15. Answer: (C) To slow the rain water down so that it soaks in and refills the groundwater

Rain falling on concrete runs straight off into drains. Check dams and pits **slow the water down so that it soaks in and refills the groundwater** that wells and tube wells draw from. Nothing people build can change how much rain actually falls.