

Mid Term Practice Worksheet - 3

Class 7th
Science

Time: 1hr 30 min.

Maximum Marks: 48

Name: _____ Section: _____ Roll No.: _____ Date: 5 September 2026

General Instructions: (i) This worksheet has four sections — A, B, C and D. (ii) All questions are compulsory; Sections C and D have internal choice. (iii) Read each question carefully before answering.

SECTION A

Q1: Choose the correct option.

(10 × 1 = 10)

- I) Which of these is an example of using the scientific method?
(A) Guessing without doing any test (B) Observing, questioning, testing and drawing conclusions (C) Copying answers from a book (D) Following superstitions
- II) Which of these substances would most likely turn blue litmus paper red?
(A) Soap solution (B) Baking soda solution (C) Lemon juice (D) Washing powder solution
- III) What is the function of a cell in an electric circuit?
(A) It breaks the circuit (B) It stores and provides electrical energy (C) It measures current (D) It lights up on its own
- IV) A bulb glows dimmer than usual even though the switch is closed. What is the most likely reason?
(A) The cell may be weak or low on charge (B) The switch is broken (C) The bulb is a good conductor (D) The wire is too short
- V) Which of the following non-metals is used to make pencil lead (graphite)?
(A) Sulphur (B) Carbon (C) Iodine (D) Oxygen
- VI) Iron rusts when it is exposed to moist air for some time. Which property of iron does this show?
(A) Malleability (B) Reactivity (C) Ductility (D) Sonorousness
- VII) Which of the following changes produces a new substance?
(A) Dissolving salt in water (B) Freezing water into ice (C) Burning of magnesium ribbon (D) Cutting a fruit into pieces
- VIII) Which of these changes is reversible?
(A) Cooking of food (B) Bursting of a cracker (C) Stretching a rubber band (D) Digestion of food
- IX) What is the main function of the respiratory system in animals?
(A) To exchange oxygen and carbon dioxide (B) To digest food (C) To pump blood (D) To remove solid waste
- X) Frog breathe through their moist skin. Why must their skin stay moist?
(A) To help them move faster (B) Because gases can only pass through the skin when it is moist (C) To protect them from sunlight (D) To help them find food

SECTION B

Q2. Match Column A with the correct item in Column B.

(1×5=5)

Column A	Column B
1. Graphite	(a) Non-metal used in pencils
2. Iron rusting	(b) Example of a chemical change
3. Weak cell	(c) Causes a bulb to glow dimly
4. Book Gills	(d) Helps tadpole breathe
5. Lemon juice	(e) Turns blue litmus paper red

Q3. Read the story below. Fill in the blanks.**(1×7=7)**

During a visit to their uncle's farm, twins Ira and Dev observed many things around them. Near the toolshed, Dev noticed an old iron gate that had turned orange-brown and flaky; uncle explained that this _____(i)_____ change, called rusting, had slowly formed a new substance over the years. At the vegetable patch, Ira tasted a raw tamarind and made a face because it was very _____(ii)_____, while the ash from the cooking fire nearby felt soapy and was _____(iii)_____ in nature. When it grew dark, uncle switched on a small torch light connected to a battery through wires; he told them that closing the _____(iv)_____ completed the circuit and let current flow to the bulb. Later, while examining farm tools, Dev noticed a copper wire used to fix the fence, and uncle said copper was chosen because it is an excellent _____(v)_____ of electricity. That night, after a big dinner, Ira felt her stomach working hard, and uncle explained that _____(vi)_____ was breaking down the food into nutrients her body could use. As they lay looking at the stars, uncle reminded them that scientists are still _____(vii)_____ new facts about the universe, just as farmers keep learning new things about their land every season.

Word bank (use each word once): chemical • acidic • basic • switch • conductor • digestion • discovering

SECTION C**Q4. Answer any ONE part for each question.****(4×4=16)**

- I) Scientists often repeat their experiments many times before accepting a result as true. Explain why repeating experiments is important in science. [4]

OR

Give one example of a simple experiment you could do at home to test a scientific idea, and explain what you would observe.

- II) Explain the difference between acidic, basic and neutral substances. Give one household example of each. [4]

OR

A student wants to find out if a solution is acidic or basic without using litmus paper. Suggest a common kitchen substance that could help, and explain your reasoning.

- III) Explain why cooking utensils are usually made of metals and not non-metals. Mention at least two properties in your answer. [4]

OR

Give two examples each of metals and non-metals used in daily life, along with one property of each.

- IV) Explain how the respiratory system helps animals survive. What would happen if an animal's respiratory system stopped working? [4]

OR

Compare how fish and land animals breathe. Why do their breathing organs differ?

SECTION D**Q5. Answer any ONE part for each question.****(5×2=10)**

I) Neha made an electric circuit for her school project using a cell, a switch, a bulb and a buzzer, all connected in series. When she closed the switch, the bulb glowed and the buzzer made a sound at the same time. After a while, the wire connecting the buzzer became disconnected.

Answer the following questions:

- (a) Draw a simple circuit diagram showing a cell, switch, bulb and buzzer connected in series. [2]
(b) Why did both the bulb and the buzzer work together when the switch was closed? [1]
(c) What happened to the bulb and the buzzer when the wire to the buzzer became disconnected? Explain why. [2]

OR

A group of students tested different powders found in their kitchen — baking soda, salt, tartaric acid (used in cooking) and washing soda — using litmus paper, and observed the colour changes.

Answer the following questions:

- (a) Which of these powders would turn blue litmus paper red? [1]
(b) Which of these powders would turn red litmus paper blue? [1]
(c) Name one powder that would not change the colour of either litmus paper, and state its nature. [1]
(d) Why is it useful to know whether a substance is acidic, basic or neutral in daily life? Give one example. [2]

II) In a science lab, students performed four activities: mixing vinegar with baking soda (which produced bubbles and fizzing), melting butter in a pan, tearing a sheet of paper into pieces, and roasting peanuts until they turned brown and gave off a toasty smell.

Answer the following questions:

- (a) Identify any two physical changes from the activities and give a reason for each. [2]
- (b) Identify any two chemical changes from the activities and give a reason for each. [2]
- (c) Which of these changes would be the hardest to reverse? Why? [1]

OR

Two iron nails were left in different places for two weeks — one was kept dry inside a box, and the other was kept in a damp cloth exposed to air. At the end of two weeks, the nail in the damp cloth had turned orange-brown and flaky, while the dry nail looked the same as before.

Answer the following questions:

- (a) What change occurred in the nail kept in the damp cloth? Name this change. [1]
- (b) Why did the dry nail not show this change? [1]
- (c) Suggest one way to prevent iron objects from rusting. [1]
- (d) Explain why rusting is considered a chemical change and not a physical change. [2]