CLASS 8 SCIENCE NCERT SOLUTIONS

NCERT Solutions for Class 8 Science Chapter 1: Exploring the Investigative World of Science – Free PDF Download

Chapter 1 — Exploring the Investigative World of Science — is a short orientation chapter that opens the new ‘Curiosity’ (Grade 8) textbook. It has no formal end-of-chapter exercise — instead it uses the everyday example of a puri puffing up unevenly in hot oil to introduce how scientists actually investig...

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Chapter 1 — Exploring the Investigative World of Science — is a short orientation chapter that opens the new 'Curiosity' (Grade 8) textbook. It has **no formal end-of-chapter exercise** — instead it uses the everyday example of a puri puffing up unevenly in hot oil to introduce how scientists actually investigate a question. Below are complete, verified answers to all the genuine in-text questions found in the chapter, sourced directly from the official NCERT PDF. These Class 8 Science Chapter 1 solutions are also useful as quick revision notes before exams.

NCERT Solutions for Class 8 Science Chapter 1: Exploring the Investigative World of Science

Probe and Ponder (Opening Questions)

1. Why is one side of a puri thinner than the other?
When a rolled disc of dough drops into hot oil, moisture inside turns to steam almost instantly. The steam pushes the two layers of dough apart so the puri puffs up like a balloon. If the dough's thickness, drop angle, or contact with the oil is uneven, the steam escapes or expands unevenly, leaving one side thinner than the other. (The chapter itself notes this everyday phenomenon isn't fully understood by scientists either — the point is learning how to investigate it, not memorising one final answer.)

2. Are there more grains of sand on all the beaches and deserts of the world, or more stars in our galaxy?
This 'wonder' question is left open in the book — it shows curiosity can span from a kitchen observation to a cosmic scale. (For context: estimates put stars in the Milky Way at a few hundred billion, while grains of sand on Earth run into the quintillions — so Earth's sand vastly outnumbers stars in just our own galaxy.)

3. From the different shapes of leaves to the many kinds of insects — why has nature created such a vast variety?
Also left open as a wonder-question. The broader scientific answer (beyond this chapter) is that variation and natural selection across different habitats produce diversity, as organisms adapt differently to different environmental pressures.

4. Is there a question that makes you curious about the world? Write it here.
Open-ended and student-specific (for example: why does milk curdle, or why do onions make us cry). There is no fixed textbook answer — this is a personal-reflection prompt.

Narrative Questions (Previewing Later Chapters)

5. Why does dough rise?
Used as an example of an everyday investigable question; it foreshadows the puri/steam discussion later in the chapter.

6. Is the world getting warmer?
Used as an example of a planet-scale investigable question; it foreshadows the book's closing chapter on climate change.

7. What does our body need to stay healthy?
Foreshadows the microorganisms/health chapter — nutritious food, exercise, medicines and vaccines.

8. How do we fight infections?
Also foreshadows the health chapter — the body fights infections with help from good nutrition, exercise, medicine, and vaccination (vaccines 'train' the body to respond to harmful microbes).

Investigating the Puri Question

9. Have you noticed how a puri or batura puffs up when fried, or how a phulka swells on the flame? Why does it puff up, and why is one side thinner?
Steam from moisture in the dough expands rapidly when heated; since gas expands to fill space, it pushes the dough layers apart, causing puffing. Unevenness in dough thickness, temperature, or oil contact causes asymmetric puffing.

10. What are the different things that may change the way a puri puffs up when fried?
Variables you can control: thickness and size of the rolled dough, type of flour used, temperature of the oil, and how the dough is dropped into the oil. What you can observe/measure: whether it puffs at all, the time taken to puff, and whether a thick dough circle still produces a thin side.

11. Do puris puff better when made from fresh dough or from stored dough?
Fresh dough usually has the right moisture and elasticity to trap steam evenly and puff well; stored dough tends to dry out or lose elasticity, so it puffs less reliably. The chapter leaves this as an open question for the student to test experimentally, not a stated fact.

12. What happens if I prick a hole in the puri before frying?
Pricking a hole lets steam escape through that opening instead of building up pressure inside, so the puri puffs much less or not at all — a common kitchen technique used to keep puris flat on purpose. It shows how controlling one variable produces a clear cause-and-effect result.

13. What does it mean to investigate like a scientist, using this puri example?
It means starting from a genuine question born of curiosity, identifying what you can change (variables) versus what you observe or measure (outcomes), changing only one variable at a time while keeping others constant, recording what happens carefully, and drawing conclusions — which often lead to new questions rather than one final answer.

Why This Chapter Matters

This chapter sets up the investigative approach used throughout the rest of the Grade 8 Curiosity textbook — the same observe-experiment-conclude method introduced here with the puri example is reused for topics like microorganisms, force and pressure, light, and the book's closing chapter on climate change.

Class 8 Science Chapter 1 – Notes and Extra Questions

Along with these NCERT Solutions, students can also use the Class 8 Science Chapter 1 Extra Questions and Class 8 Science Chapter 1 Revision Notes for quick revision and extra practice.