

What is Science?

Chapter 1: The Wonderful World of Science · Topic 1

Key Concept

The scientific method follows a general pattern: Observation (noticing something interesting), Question (asking why or how it happens), Hypothesis (a possible explanation to be tested), Experiment (a controlled test of the hypothesis), and Conclusion (deciding whether the evidence supports the hypothesis). This process is not always a strict straight line — scientists often go back and forth between steps, refining their questions as they learn more. Famous scientists like Galileo and Marie Curie all followed this basic pattern of curiosity-driven inquiry, even though their tools and methods differed.

Quick Revision Notes

- Science is based on observation, questioning, and evidence.
- The scientific method: Observation → Question → Hypothesis → Experiment → Conclusion.
- A hypothesis is a testable explanation, not a proven fact.
- Scientific knowledge changes as new evidence is discovered.

Practice Questions

- 1 Describe the steps of the scientific method using an example from your own life.
- 2 Why is evidence important in science?
- 3 Give one example of how curiosity can lead to a scientific discovery.