

Data Literacy for Schools

Teacher Training Guide · Module 11 of 15 · CHERIEDU Academy

1. What is Data Literacy?

Data literacy is the ability to read, understand, question, and communicate using data. Just as text literacy helps people navigate a world of words, data literacy helps people navigate a world of information.

2. Data Literacy Skills Ladder

| Level | Skill | Example |
|---------|-----------------------|---|
| Level 1 | Read data | Look at a bar chart and say what it shows |
| Level 2 | Question data | "Who collected this? Could it be biased?" |
| Level 3 | Interpret data | "Sales went up because it was a holiday season" |
| Level 4 | Communicate data | Present findings with charts and clear explanations |
| Level 5 | Create data solutions | Build a dashboard or AI model from data |

3. Teaching Data Literacy Across Subjects

| Subject | Data Literacy Lesson |
|-----------|---|
| Maths | Analyse school canteen sales data — find the best-selling item each month |
| Science | Collect plant growth data over 4 weeks — plot and interpret trends |
| Geography | Study population data charts — what do they tell us about India? |
| Health/PE | Track class fitness data — compare before/after a 4-week exercise plan |

4. Misleading Data — Teaching Critical Thinking

- Truncated axes: A chart can make a small change look dramatic.
- Cherry-picking: Only showing data that supports one viewpoint.
- Correlation vs causation: Ice cream sales and drowning rates both rise in summer — is ice cream dangerous?
- Exercise: Show students a misleading chart and ask them to spot the trick.

5. Free Data Sets for Classroom Use

- data.gov.in — India government open data (population, health, education).
- kaggle.com/datasets — thousands of real datasets for students.
- ourworldindata.org — global data on everything, with visualisations.
- Your own school's attendance data — anonymised and analysed together.

