

Data — The Food for AI

Student Self-Training Guide · Grade 5+ · Module 4 of 10

1. What is Data?

Data is any piece of information — a number, a word, a photo, a click, a heartbeat. AI cannot think without data. The more quality data it has, the smarter it becomes.

ANALOGY

Data is to AI what food is to your brain. Junk food = junk data = poor thinking. Nutritious food = clean data = smart decisions.

2. Types of Data

Type	Examples	Used for
Text	Books, messages, reviews	Chatbots, translation, sentiment
Images	Photos, X-rays, satellite pics	Face recognition, medical AI
Numbers	Prices, temperatures, scores	Prediction, forecasting
Audio	Voice, music, sound	Speech recognition, music AI
Video	CCTV, YouTube, sports	Action recognition, self-driving

3. Good Data vs Bad Data

Good Data	Bad Data
Accurate — matches reality	Contains errors or typos
Complete — no missing values	Many blank fields
Unbiased — fair representation	Only one type of person represented
Up-to-date — recent	Old, outdated information

4. How Much Data Does AI Need?

- Image recognition AI: 1 million+ labelled images.
- Language AI (like ChatGPT): Billions of sentences from the internet.
- A school attendance AI: Several years of student records.
- More data almost always means a smarter, more reliable AI.

5. Data Privacy — Protecting Your Information

- Every time you use an app, it may collect data about you.
- Your name, location, searches, and clicks are all data.
- Always check privacy settings on apps you use.
- Never share personal data (address, phone, passwords) with unknown apps.

6. Activity: Spot the Data

ACTIVITY

For one hour, write down every piece of data you create (searches, messages, clicks, photos taken). At the end, count how many data points you generated. Multiply by 24 — that is roughly your daily data footprint!

