



Lesson 1: Seeing the World through Data

Target group: 15–17-year-old secondary students in Africa

Key Learning Outcomes

By the end of this lesson, you should be able to:

1. Describe what data is.
2. Explain why we care about data.

1. Introduction

Imagine this:

- The bell rings for lunch break.
- You walk outside and find students everywhere—some walking, some running.
- All are wearing the same uniform, but you notice differences: height, body weight, skin color, and sex.

Now, your teacher suddenly gives you a task: 'Record these differences on your class.'

How would you do it?

- You draw a simple table with rows and columns.
- Row 1: Name of student, His/her Height, His/her Weight, His/her Skin Color, Sex.
- Then you repeat for all students.

That table now describes your classmates. This description is what we call DATA.

- Each student = a case/subject (a row).
- Each feature (height, weight, etc.) = a variable (a column).

2. What exactly is Data?

Data is facts, numbers, or information we collect about something.

Local examples:

- A teacher recording exam marks of students → those marks are data.
 - A farmer counting how many chickens hatched this season → those numbers are data.
 - A shopkeeper writing down sodas sold in a day → that record is data.
 - A boda-boda rider noting liters of fuel used daily → that's data.
- ☑ Data is not complicated. It's the information around us, written down in a systematic way.

3. Why Do We Care About Data?

1. To Make Better Decisions

- Farmers check rainfall data before planting.
- Families compare food prices in markets to decide where to buy.

2. To Solve Problems

- Health workers track malaria cases to know if they need more medicine.
- Police record road accidents to improve road safety.

3. To Discover Patterns & Predict

- Shopkeepers track best-selling products so they restock before they run out.
 - Teachers look at exam trends to identify students who need help.
4. To Create Opportunities
- Young people use social media likes/views (data) to grow small businesses.
 - Mobile money companies track transactions → creating thousands of jobs for agents.

Without data, we are like walking in darkness.

With data, we carry a torch that shows us the way forward.

4. Conclusion

- Data = information we collect about real life.
- Each row = a subject/case, each column = a variable.
- We use data to decide, solve, predict, and create opportunities.

Quick Activity

1. Write down 3 examples of data you have personally collected this week (e.g., checking airtime balance, counting chapatis sold, noting your class position).
2. Identify the 'case' (who/what it's about) and the 'variable' (what information you collected).