Here's a simple and effective **Introduction to Data Literacy** lesson plan, ideal for middle school, high school, or early college students. It can be adjusted based on time (typically 45–60 minutes) and prior student knowledge.

### Lesson Plan: Introduction to Data Literacy

Grade Level: Middle School / High School / Early College Duration: 1 hour Topic: Introduction to Data Literacy Objective: By the end of the lesson, students will be able to:

- Understand what data is and why it matters.
- Identify different types of data (qualitative vs quantitative).
- Interpret basic data visualizations (charts, graphs, tables).
- Recognize the importance of data in decision-making.

### Materials Needed

- Projector or smartboard
- Handouts with sample data and graphs
- Internet access (optional)
- Whiteboard and markers

#### Lesson Outline

### 1. Hook / Warm-Up (5-10 minutes)

Activity: Ask students:

- "What's the last decision you made using data?"
- "Where do you see data in everyday life?"

Prompt short responses to generate discussion. Show a fun example—like how Netflix recommends shows or how sports stats are used.

### 2. What Is Data? (10 minutes)

#### **Mini-Lecture + Discussion**

- Define data: "Facts and statistics collected for analysis."
- Types of data:
  - **Qualitative**: Descriptive (e.g., colors, names, categories)
  - **Quantitative**: Numerical (e.g., age, height, number of followers)
- Where data comes from: surveys, sensors, apps, websites

### 3. Data in the Real World (10 minutes)

Activity: Show examples of how data is used:

- Infographics (e.g., social media usage, COVID-19 stats, sports performance)
- Ask: "What story does this data tell?"
- Let students pair up and analyze one example briefly.

### 4. Reading Charts and Graphs (15 minutes)

### Interactive Exercise

- Provide students with a handout or display:
  - o Bar chart
  - Line graph
  - o Pie chart
- Ask guiding questions:
  - What is the trend?
  - What stands out?
  - What conclusions can we draw?

## 5. Data Ethics & Critical Thinking (10 minutes)

### Discussion

- Talk about privacy: How is your data collected online?
- Misleading data: Can charts lie?
- Encourage healthy skepticism.

# 6. Wrap-Up / Assessment (5 minutes)

**Exit Ticket**: Students write down:

- One new thing they learned
- One question they still have

## **Optional Extensions**

- Have students collect data from their classmates (e.g., favorite color, hours of sleep) and make a simple graph.
- Introduce basic tools like Google Sheets or Excel.