

Intro to Data: Lecture-Based

Audience:

- Students (6th-12th grade)
 - Examples favor students who enjoy sports and video games
- Little to no prior knowledge of data
- Requires multiple sessions
 - Pre-Assessment
 - Workshop + Post-Assessment
 - Project

Agenda:

The lecture-based workshop is a surface-level introduction to data analysis and usage. Participants learn the definition of data, key terms, and basic analysis through presentation/discussion, scaffolding concepts to lead up to an independent project.

- 0:01 - 0:10: Getting your students ready (slides 1-9)
 - 0:01 - 0:01: Notecard activity instructions
 - 0:01 - 0:03: Students pass cards and write words
 - 0:03 - 0:05: Students create sentences
 - 0:05 - 0:08: Students share sentences and discuss
 - 0:08 - 0:09: Data tells a story
 - 0:09 - 0:10: Objective and Purpose
- 0:10 - 0:14: What is data? (slides 10-13)
 - 0:10 - 0:12: Data word wall
 - 0:12 - 0:14: Data Definition and examples
- 0:14 - 0:25: Quantitative vs. Qualitative data (slides 14-22)
 - 0:14 - 0:16: Quantitative data definition and examples
 - 0:16 - 0:18: Qualitative data definition and examples
 - 0:18 - 0:24: Rock, paper, scissors, answer
 - 0:24 - 0:25: Quantitative vs. Qualitative closing thoughts
- 0:25 - 0:40: Understanding charts and graphs (slides 23-32)
 - 0:25 - 0:27: Definition of “chart” and “t-chart”
 - 0:27 - 0:28: T-chart examples
 - 0:28 - 0:31: Chart CFU (check for understanding)
 - 0:31 - 0:33: Definition of “graph”; “graph” vs. “chart”
 - 0:34 - 0:37: Charts that show comparison
 - 0:37 - 0:40: Charts that show change over time
- 0:40 - 1:00: Avoiding bias
 - 0:40 - 0:41: *Fortnite vs. Apex Legends* t-chart
 - 0:41 - 0:44: *Fortnite vs. Apex Legends* line graph
 - 0:44 - 0:45: Closing thoughts on bias
 - 0:45 - 0:50: Community data project introduction
 - 0:50 - 0:59: Student exploration of community data

- 0:59 - 1:00: Conclusion

Slides

https://docs.google.com/presentation/d/1jMOiDN954X70b-Q4IPDQG3Mww6KPBQZFugHCz6j_3pM/edit?usp=sharing

Logistics

<https://drive.google.com/drive/folders/1kQULkEqjeDIWYZulHwOV6H8tEJZiCRMW?usp=sharing>