

Name: _____ Date: _____

Answer Key: Data Detectives: The Case of the 7th Grade Digital Trail Quiz

Solve these 10 data puzzles to identify reliable sources and spot hidden bias in everyday statistics.

1. Imagine you are researching the average score of Minecraft players worldwide. Which source would provide the most reliable data for your report?

Answer: B) An official report from the game's developer, Mojang Studios

Official developers have access to primary data and internal analytics, making their reports more accurate than anecdotal evidence from social media.

2. True or False: If you find a data chart on a professional-looking website, it is always 100% accurate and does not need to be checked.

Answer: B) False

Professional design does not guarantee facts; data literacy requires verifying the source's reputation and potential bias regardless of appearance.

3. A scientist studies 5,000 birds to understand migration. In data terms, the group of people or objects being studied is called a ____.

Answer: C) Sample

A sample is a subset of a population used to represent the whole group in a study or experiment.

4. You see a social media post claiming a new soda makes people run faster, but the study only tested three professional runners. What is the main problem with this data?

Answer: A) The sample size is too small to be reliable

Small sample sizes are often not representative of the general public and can lead to misleading or coincidental results.

5. When a person only looks for data that proves what they already believe, they are demonstrating ____ bias.

Answer: B) Confirmation

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Confirmation bias occurs when we favor information that aligns with our existing beliefs while ignoring contradictory evidence.

6. True or False: Using a password-protected folder and regular backups are methods used to manage and protect data integrity.

Answer: A) True

Data management involves organizing and securing information to ensure it is not lost, stolen, or corrupted.

7. A fitness app tracks your steps and heart rate every day. This collection of raw numbers and information before it is analyzed is known as:

Answer: B) A dataset

A dataset is a collection of related sets of information that is composed of separate elements but can be manipulated as a unit by a computer.

8. To display how a student's grades have changed over the entire school year, the best type of data visualization to use is a ____ graph.

Answer: B) Line

Line graphs are the most effective way to show trends or changes in data points over a specific period of time.

9. True or False: Data literacy only matters for people who work as computer programmers or mathematicians.

Answer: B) False

In a digital world, data literacy is a life skill needed by everyone to make informed decisions about health, finances, and news.

10. You find a chart about global temperatures, but the creator didn't label the X-axis or Y-axis. Why is this a problem for evaluating data?

Answer: C) Without labels, there is no context to understand what the data represents

Context is everything in data; labels tell us the units and variables being measured so we can interpret the meaning of the visuals.