

Name _____

The Significance of Data and Observation

Short-Answer Answer Key

1. Data collection in science aims to be objective and free from personal biases to ensure that the collected information is based on facts rather than opinions or preconceived notions. This objectivity enhances the credibility and reliability of research findings.
2. An example of a scientific experiment involving precise measurements is a chemistry experiment to determine the density of a substance by measuring its mass and volume.
3. Observations serve as records of events or patterns over time by documenting information that can be referenced and analyzed later. This is important in scientific research because it provides a historical record and a basis for comparisons and analyses.
4. Participant observation involves researchers becoming active participants in the environment or group they are studying. For example, anthropologists might live among a particular cultural group to observe and understand their customs and behaviors.
5. Answers may vary. An example could be deciding the best time to go fishing. Understanding data collection and observation could help by considering factors like weather conditions, fish behavior, and fishing success patterns at different times of the day.

