LESSON MAKER PRO

Plan the Data

Choose the data and method that fit each question.

GRADE 6 · 6.PS.1.b

6.PS.1.b "Determine the data needed to answer a formulated question and collect the data (or acquire existing data) using various methods (e.g., observations, measurement, surveys, experiments)."

NAME _____ DATE _____

MATCH DATA TO QUESTIONS

First, name the information needed from each person, object, or trial. Then choose a method: survey people, measure with a tool, observe and count, run an experiment, or use matching existing records. Use data only when it fits the question.

WORKED EXAMPLE

The library club wants to know the most popular book genre among 12 members. What data should it collect, and how should it collect it?



1. Identify the needed data: each member's favorite genre.
2. Choose a survey because members can report their choices.
3. Ask all 12 members the same question and record each choice.

Answer: Collect each member's favorite genre by surveying all 12 club members.

PRACTICE 4 problems

1 The garden club asks, "How many beans grew on each of 8 plants?" What data should it collect, and what method should it use?

ANSWER _____

2 A student asks, "How long does it take to walk from the library to the gym?" What data is needed, and how can it be collected?

ANSWER _____

3 A principal asks whether more sixth graders chose band or chorus. A sign-up list already records each sixth grader's choice. What data should be acquired, and from where?

ANSWER _____

4 A class asks, "Does the amount of water affect plant height?" What data should it collect, and what method should it use?

ANSWER _____

APPLY IT Show your work

1 The student council asks, "How many minutes do sixth graders usually spend on homework each night?" What data should it collect, and how should it collect it?

WORK SPACE

ANSWER _____

2 The game club recorded the votes shown. Can this table answer, "What snack do all sixth graders prefer?" Explain what data is still needed.

GAME CLUB SNACK VOTES

Snack	Votes
Pretzels	7
Fruit cups	9
Popcorn	11

ANSWER _____

CHALLENGE One step up

A game club asks, "Does practice time change a player's score on the same game level?" Plan a fair experiment. State the data, method, and one condition to keep the same.

WORK SPACE AND ANSWER

ANSWER KEY

Plan the Data

GRADE 6 · 6.PS.1.b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	The garden club asks, "How many beans grew on each of 8 plants?" What data should it collect, and what method should it use?	**Collect the number of beans on each plant. Observe and count the beans on all 8 plants.**
2	A student asks, "How long does it take to walk from the library to the gym?" What data is needed, and how can it be collected?	**Collect the elapsed walking time. Measure the time with a stopwatch.**
3	A principal asks whether more sixth graders chose band or chorus. A sign-up list already records each sixth grader's choice. What data should be acquired, and from where?	**Acquire each sixth grader's band-or-chorus choice from the school sign-up list.**
4	A class asks, "Does the amount of water affect plant height?" What data should it collect, and what method should it use?	**Collect the water amount and height for each plant. Run an experiment with different water amounts and measure the plants' heights.**

PART 2 · APPLY IT

1. **Collect each selected sixth grader's homework minutes per night. Survey a representative sample of sixth graders and record their responses.** The question is about homework time, so collect minutes spent on homework. A representative survey gives data from the target group.
2. **No. It shows only game club votes. Survey a representative sample of all sixth graders and record each student's snack choice.** The table represents game club members, not all sixth graders. More snack-choice data from a representative sixth-grade sample is needed.

CHALLENGE

Record each player's practice time and score. Randomly assign players to different practice times, then have all players complete the same game level. Keep the game level the same.

Accept equivalent descriptions of the needed data and a suitable method. For surveys, accept random or representative samples when the question is about a larger group.