

Data Detective Questions

Ask questions that need real information.

GRADE 4 • 4.PS.1.a

4.PS.1.a "Formulate questions that require the collection or acquisition of data."

NAME _____

DATE _____

ASK FOR DATA

A data question asks about a group and needs answers from people or records. Include who or what you will study and the number, measurement, or category you will collect. The answers should be able to vary.

WORKED EXAMPLE

A teacher wants to choose a read-aloud book. Write a data question for 18 students.

1. Name the group: 18 students.
2. Choose data to collect: each student's favorite type of story.
3. Ask a question that lets every student give an answer.

Answer: What type of story is each of the 18 students' favorite for a read-aloud book?

PRACTICE 6 problems

- 1** Write a data question to find out how long each of 24 students read at home last night.

ANSWER _____

- 2** Write a data question to find out the favorite board game of each of 25 students.

ANSWER _____

- 3** Write a data question to collect the shoe sizes of 22 soccer players.

ANSWER _____

- 4** Write a data question to find out how many library books each of 28 students borrowed this month.

ANSWER _____

- 5** Write a data question to find out which cafeteria lunch each of 21 students chooses most often.

ANSWER _____

- 6** Write a data question to find out how long 23 students usually travel to school.

ANSWER _____

APPLY IT Show your work

- 1** The garden club can plant one vegetable for the cafeteria. The club wants to choose a vegetable that many fourth graders will eat. Write a data question. Then name the data the club should collect.

WORK SPACE

ANSWER _____

- 2** The school store can sell one new school-supply item. The store team wants to choose an item that fourth graders will use. Write a data question. Then name the data the team should collect.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

The student council can host either a game night or a school dance. It wants to know whether fourth graders and fifth graders prefer different events. Write one data question that compares the two grades. Then name the data you would collect.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write a data question to find out how long each of 24 students read at home last night.	How many minutes did each of the 24 students read at home last night?
2	Write a data question to find out the favorite board game of each of 25 students.	What board game is the favorite of each of the 25 students?
3	Write a data question to collect the shoe sizes of 22 soccer players.	What shoe size does each of the 22 soccer players wear?
4	Write a data question to find out how many library books each of 28 students borrowed this month.	How many library books did each of the 28 students borrow this month?
5	Write a data question to find out which cafeteria lunch each of 21 students chooses most often.	Which cafeteria lunch does each of the 21 students choose most often?
6	Write a data question to find out how long 23 students usually travel to school.	How many minutes does each of the 23 students usually spend traveling to school?

PART 2 • APPLY IT

- 1. Question: Which vegetable would each fourth grader be most willing to eat in a cafeteria lunch? Data: Each fourth grader's chosen vegetable.** Survey fourth graders and record one vegetable choice from each student. Count the choices to see which vegetable is chosen most often.
- 2. Question: What school-supply item would each fourth grader use most? Data: Each fourth grader's chosen school-supply item.** Ask fourth graders to choose one school-supply item and record each choice. The team can count the choices before selecting an item.

CHALLENGE

Question: For each grade, how many students prefer a game night and how many prefer a school dance?
Data: Each student's grade and preferred event.

Accept equivalent questions that clearly name a group and a variable or category to collect. For the apply and challenge items, accept different wording when the question matches the decision and the named data would answer it.