

Question Quest

Write questions that collect useful data.

GRADE 5 • 5.PS.1.a

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

NAME _____

DATE _____

ASK FOR DATA

A useful data question tells who will answer and what information you will collect. You should be able to record and compare the answers from many people or objects.

WORKED EXAMPLE

A camp leader wants data about how many water bottles 17 campers bring on a hike. Write a question.

1. Name the group: 17 campers.
2. Choose what to measure: the number of water bottles brought on the hike.
3. Ask: How many water bottles will each of the 17 campers bring on the hike?

Answer: How many water bottles will each of the 17 campers bring on the hike?

PRACTICE 6 problems

- 1** Write one question that collects data about how many pets are owned by 12 students in your class.

ANSWER _____

- 2** Write one question that collects data about the shoe sizes of students in your grade.

ANSWER _____

- 3** Rewrite this question so it collects the number of minutes 14 students spend reading after school: "Do you read after school?"

ANSWER _____

- 4** Write one question that collects data about how 22 students traveled to school today.

ANSWER _____

- 5** Write one question that collects data about the number of books 16 students in your class read last month.

ANSWER _____

- 6** Write one question that collects data about each student's favorite school subject in a class of 19 students.

ANSWER _____

APPLY IT Show your work

- 1** The school library wants to buy more books that fifth graders want to read. The librarian will ask 24 fifth graders. Write a question that will collect useful data.

WORK SPACE

ANSWER _____

- 2** The student council is planning an after-school game day. It needs data from 28 students about the type of game they would choose. Write a question that will collect useful data.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

The cafeteria can offer only one fruit side with lunch next week: apple slices, orange wedges, or grapes. Write a data question to ask every fifth grader. Then explain in one sentence why your question will help the cafeteria decide.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write one question that collects data about how many pets are owned by 12 students in your class.	How many pets does each of the 12 students in our class own?
2	Write one question that collects data about the shoe sizes of students in your grade.	What shoe size does each student in our grade wear?
3	Rewrite this question so it collects the number of minutes 14 students spend reading after school: "Do you read after school?"	How many minutes does each of the 14 students spend reading after school?
4	Write one question that collects data about how 22 students traveled to school today.	How did each of the 22 students travel to school today?
5	Write one question that collects data about the number of books 16 students in your class read last month.	How many books did each of the 16 students in our class read last month?
6	Write one question that collects data about each student's favorite school subject in a class of 19 students.	What is each of the 19 students' favorite school subject?

PART 2 • APPLY IT

- Fifth graders, which book genre would you most like the library to buy more of: mystery, fantasy, graphic novels, or realistic fiction?** Ask each of the 24 fifth graders the same question. Tally the genre choices to find which genre has the most votes.
- Students, which game type would you choose for game day: board games, card games, or active outdoor games?** Ask all 28 students and record one choice from each student. Count the choices for each game type.

CHALLENGE

Fifth graders, which fruit side would you choose with lunch: apple slices, orange wedges, or grapes? This question collects one choice from every fifth grader, so the cafeteria can count the choices and choose the most popular fruit.

Accept equivalent questions that clearly name the group or use the group given in the situation, and that ask for the stated information. For the challenge, accept a clear explanation that the cafeteria can count responses to find the most popular choice.