

Data Detectives

Choose the information that helps answer a class question.

3.PS.1.b “Determine the data needed to answer a formulated question and collect or acquire existing data (limited to 30 or fewer data points for no more than eight categories) using various methods (e.g., polls, observations, tallies).”

NAME _____

DATE _____

DATA NEEDED

This information directly helps answer the class question. Collect it with a poll, observation, or tally.

For the question, “Which fruit do students choose at snack?” record each student's fruit choice.

DATA NOT NEEDED

This information does not help answer the class question. You do not need to collect it.

For the question, “Which fruit do students choose at snack?” the color of each student's backpack is not needed.

1 SORT

8 items

The question is, “Which way do most students in our class get to school?” Circle NEEDED or NOT NEEDED for each item.

1. Each student's main way of getting to school

NEEDED

NOT NEEDED

2. A tally of students who walk, bike, ride a bus, or ride in a car

NEEDED

NOT NEEDED

3. Each student's favorite ice cream flavor

NEEDED

NOT NEEDED

4. The number of students who walk to school

NEEDED

NOT NEEDED

5. The color of each student's water bottle

NEEDED

NOT NEEDED

6. How many letters are in each student's name

NEEDED

NOT NEEDED

7. A poll that asks, “How do you get to school?”

NEEDED

NOT NEEDED

8. Each student's birthday month

NEEDED

NOT NEEDED

2

PROVE IT

Explain your thinking

Pick two items from Part 1. For each one, tell how you knew where it belonged.

ITEM # _____ HOW I KNEW _____

ITEM # _____ HOW I KNEW _____

3

MAKE YOUR OWN

One of each

Write one new kind of data that is NEEDED and one new kind of data that is NOT NEEDED for the class question.

NEEDED _____

NOT NEEDED _____

CHALLENGE

Write your own question about the class, name two kinds of data you need, and choose a way to collect the data: poll, observation, or tally.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	Each student's main way of getting to school	NEEDED	This directly tells how each student gets to school.
2	A tally of students who walk, bike, ride a bus, or ride in a car	NEEDED	The tally shows how many students use each way.
3	Each student's favorite ice cream flavor	NOT NEEDED	Ice cream choices do not answer the transportation question.
4	The number of students who walk to school	NEEDED	This count helps find the most common way.
5	The color of each student's water bottle	NOT NEEDED	Water bottle colors do not answer the transportation question.
6	How many letters are in each student's name	NOT NEEDED	Name lengths do not answer the transportation question.
7	A poll that asks, "How do you get to school?"	NEEDED	The poll collects the needed transportation data.
8	Each student's birthday month	NOT NEEDED	Birthday months do not answer the transportation question.

PART 2 • PROVE IT

Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 • MAKE YOUR OWN (SAMPLE ANSWERS)

- **NEEDED:** A chart that shows how many students ride a bus, walk, bike, or ride in a car.
- **NOT NEEDED:** Each student's favorite book.

Challenge: Question: Which lunch choice is most popular in our class? Data: each student's lunch choice and a tally for each lunch choice. Method: poll.

Accept other answers when the data clearly does or does not help answer the transportation question. For the challenge, check that the question, needed data, and collection method match.