What Did You Record?

Sort data by what the values tell you.

S.Q.3 "Identify differences between categorical and quantitative data. Determine whether categorical or quantitative data is appropriate to answer a statistical question..."

NAME _____ DATE _____

CATEGORICAL DATA

Categorical data name a group or describe a quality. The values are labels, not amounts you can add.

For each storm, record its type: blizzard, hurricane, or thunderstorm.

QUANTITATIVE DATA

Quantitative data give a count or measurement. The numbers tell how many or how much.

For each storm, record its highest wind speed in kilometers per hour.

1 SORT

8 items

Circle CATEGORY or QUANTITY for each item, then in Part 2 choose one item from each category and explain how you knew.

1.	Each student's usual way of getting to school	CATEGORY	QUANTITY
2.	Minutes each student spends getting to school	CATEGORY	QUANTITY
3.	Number of pages in each library book	CATEGORY	QUANTITY
4.	Each library book's genre	CATEGORY	QUANTITY
5.	Each player's position on a soccer team	CATEGORY	QUANTITY
6.	Each tree's species in a local park	CATEGORY	QUANTITY
7.	Number of goals each player scores in a season	CATEGORY	QUANTITY
8.	Each visitor's favorite museum exhibit	CATEGORY	QUANTITY

2 PROVE IT

Explain your thinking

Choose one item from each category and explain how you knew.

ITEM # _____ **HOW I KNEW** _____

ITEM # _____ **HOW I KNEW** _____

3 MAKE YOUR OWN

One of each

Write one new example of data to collect for each category, using topics different from the eight items.

CATEGORY _____

QUANTITY _____

CHALLENGE

Write one statistical question about students' sleep that needs categorical data and one that needs quantitative data, then name a fitting graph for each.

ANSWER KEY

What Did You Record?

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Each student's usual way of getting to school	**CATEGORY**	Ways of traveling are labels for groups.
2	Minutes each student spends getting to school	**QUANTITY**	Minutes measure an amount of time.
3	Number of pages in each library book	**QUANTITY**	Pages are counted.
4	Each library book's genre	**CATEGORY**	Genres are labels for types of books.
5	Each player's position on a soccer team	**CATEGORY**	Positions name roles, not amounts.
6	Each tree's species in a local park	**CATEGORY**	Species names identify types of trees.
7	Number of goals each player scores in a season	**QUANTITY**	Goals are counted.
8	Each visitor's favorite museum exhibit	**CATEGORY**	Exhibit choices are labels, not amounts.

PART 2 · PROVE IT

Task: Choose one item from each category and explain how you knew.
Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 · MAKE YOUR OWN (SAMPLE ANSWERS)

- **CATEGORY**: Each flower's color
- **QUANTITY**: The length of each pencil in centimeters

Challenge: Which sleep position is most common among students in this class? Use a bar graph. How many hours do students in this class sleep on a school night? Use a dot plot.

In Part 2, look for an explanation that identifies labels for the categorical item and a count or measurement for the quantitative item. In Part 3, accept other clear examples that fit the stated categories.