Data Detectives

Tell numbers from groups.

MA.3.DP.1 "Collect, represent and interpret numerical and categorical data."

NAME _____ DATE _____

NUMBER DATA

Number data uses numbers to tell how many or how much. You can count or measure it.

A fish tank holds 12 liters.

CATEGORY DATA

Category data puts answers into named groups. It gives a group name instead of an amount.

The ice cream flavor is vanilla.

1 SORT

8 items

Part 1 SORT: Circle NUMBER or CATEGORY for each item; Part 2 PROVE IT: choose two items and explain why each belongs in its group.

1.	A student's favorite recess game	NUMBER CATEGORY
2.	The type of pet at home	NUMBER CATEGORY
3.	The number of siblings	NUMBER CATEGORY
4.	The color of a backpack	NUMBER CATEGORY
5.	Minutes spent reading last night	NUMBER CATEGORY
6.	Books read this month	NUMBER CATEGORY
7.	The kind of fruit packed for lunch	NUMBER CATEGORY
8.	How a student travels to school	NUMBER CATEGORY

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 example of NUMBER data and one new example of CATEGORY data.

NUMBER _____

CATEGORY _____

CHALLENGE

Write a survey question that collects NUMBER data, then write two possible answers. Then ask three classmates your question and record their actual answers. Draw a table with each different answer and how many classmates gave it. The counts must total three. Write one fact you learn from your table. Your teacher can help record the answers.

ANSWER KEY # Data Detectives

GRADE 3 · MA.3.DP.1

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	A student's favorite recess game	**CATEGORY**	The response is a game name, or group.
2	The type of pet at home	**CATEGORY**	The response names a type of pet.
3	The number of siblings	**NUMBER**	The response tells how many siblings.
4	The color of a backpack	**CATEGORY**	The response is a color name.
5	Minutes spent reading last night	**NUMBER**	The response tells an amount of time.
6	Books read this month	**NUMBER**	The response tells how many books.
7	The kind of fruit packed for lunch	**CATEGORY**	The response names a fruit group.
8	How a student travels to school	**CATEGORY**	The response names a travel type.

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)

- **NUMBER**: A class has 24 students.
- **CATEGORY**: A student's lunch choice is pasta.

Challenge: How many minutes do you walk each day? Possible answers: 10 minutes and 25 minutes. Actual survey results vary. For example only: recorded answers 10, 10, 25 give a table with 10 minutes: 2 and 25 minutes: 1. Two of these three classmates reported 10 minutes.

For Part 2, accept explanations that say number data tells an amount and category data names a group. Part 3 answers may vary if they clearly fit the stated data type. For the survey, observe actual question asking and recording; check that the frequency table represents all three recorded answers and that the stated fact follows from it. Do not grade against the illustrative numbers.