

Graph Story Detectives

Describe the groups and the whole data set.

GRADE 3 • 3.PS.1.e.i

3.PS.1.e.i "Excerpt: Analyze data represented in pictographs and bar graphs, and communicate results orally and in writing: describe the categories of data and the data as a whole"

NAME _____

DATE _____

Read the graph carefully

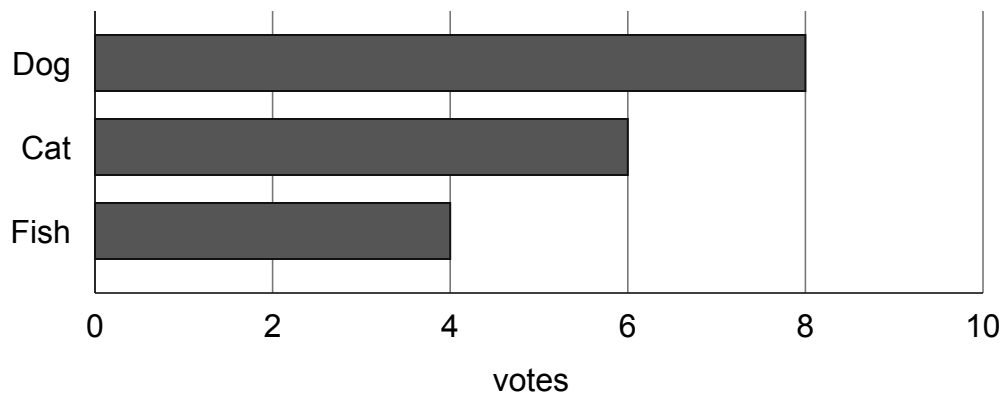
A category is one named group. To describe a data set as a whole, tell what was counted, name all categories, and use all groups for a total. Read the title, labels and key or scale.

Try it together

Describe one category and then the complete class-pet data set.

Class Pet Choices

Pet



Dog is one category with 8 votes. The categories are Dog, Cat and Fish; $8 + 6 + 4 = 18$ votes. The data show 18 votes for class pets across three categories.

Write each answer. Then explain it aloud to a partner, pointing to the graph evidence. Use the named graph again when a task refers back to it.

1. Read the snack groups

Name every category and give its vote count.

Snack Survey

Fruit / Pictures

Apples ● ● ●

Bananas ● ●

Grapes ● ● ● ●

● Key: 1 circle = 2 votes

2. Tell the whole snack story

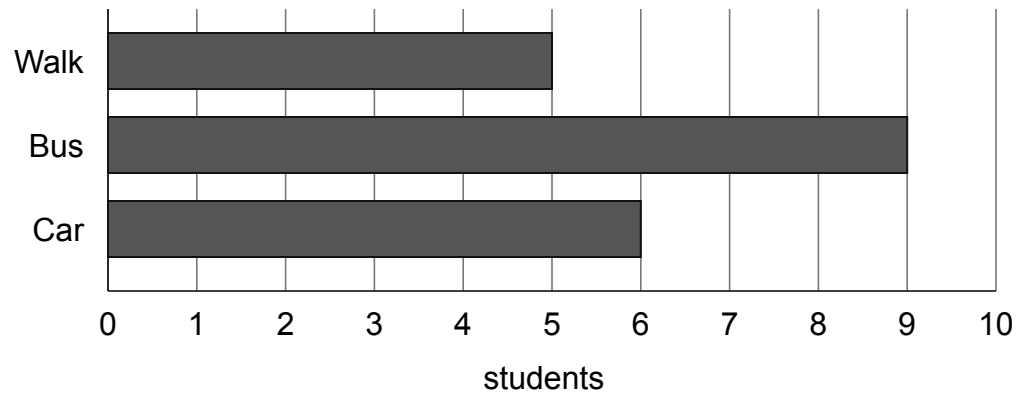
Use Snack Survey. Describe the data as a whole: what was counted, which categories, and how many votes altogether.

3. Describe school travel

List the categories. What does the number axis count?

Travel to School

Way

**4. Part and whole**

Use Travel to School. Write one sentence about one category and one sentence about the whole set.

5. Describe book choices

Describe the data as a whole, including all categories and the total votes.

Club Book Choices

Type / Pictures

Stories ● ● ● ●

Facts ● ●

Poems ● ● ●

● Key: 1 circle = 5 votes

6. Check a description

Use Club Book Choices. Leo says the data contain only three votes because there are three category names. Correct him using the graph.

7. Same groups count, different data

A partner says Travel to School and Snack Survey describe the same data because both have three categories. Explain why this is wrong.

TEACHER NOTES

Require descriptions of actual printed graphs. Category answers name a group; whole-set descriptions identify the topic, all groups and total. Category counts must be interpreted through the printed numeric scale or symbol key. Listen for oral evidence as well as checking written answers.

TASK 1

Apples 6, Bananas 4, Grapes 8.

TASK 2

The survey records 18 fruit votes: Apples, Bananas and Grapes; $6 + 4 + 8 = 18$.

TASK 3

Walk, Bus and Car. The number axis counts students.

TASK 4

Example: Bus has 9 students. The whole set shows 20 students traveling by Walk, Bus or Car.

TASK 5

The club recorded 45 votes for Stories, Facts and Poems: $20 + 10 + 15 = 45$. Each circle is 5 votes; 9 circles represent 45 votes.

TASK 6

There are 3 categories, but 45 votes. Category names are not vote counts. Use the circle counts and the key, not the number of row labels.

TASK 7

Travel to School counts 20 students by travel method. Snack Survey counts 18 votes by fruit choice. The topics, categories and totals differ.