

Data Detectives

Collect replies, group the choices, and build a labeled graph.

GRADE 2 • MA.2.DP.1.1

MA.2.DP.1.1 "Excerpt: Collect, categorize and represent data using tally marks, tables, pictographs or bar graphs. Use appropriate titles, labels and units."

NAME _____

DATE _____

Data tells what was counted

A table puts counts beside category names. A graph shows counts with marks. Read its title, labels and scale or key.

Try it together

How many paint brushes are shown in all?

Paint brushes

Brush size	Number of brushes
Small	3
Large	2

Read the two counts: 3 small and 2 large. Add the counts to find the total. $3 + 2 = 5$ brushes.

Use a pencil. Read each title and label. Tasks 1-4 use made-up data. Tasks 5-6 tell you whether to collect replies or use a supplied display.

1. Count the replies

Twelve children each chose one fruit. Count each reply once. Fill in the number of votes for each fruit.

Made-up fruit replies

1. Apples	2. Pears	3. Plums	4. Apples
5. Pears	6. Apples	7. Plums	8. Pears
9. Apples	10. Plums	11. Pears	12. Apples

Fruit choices

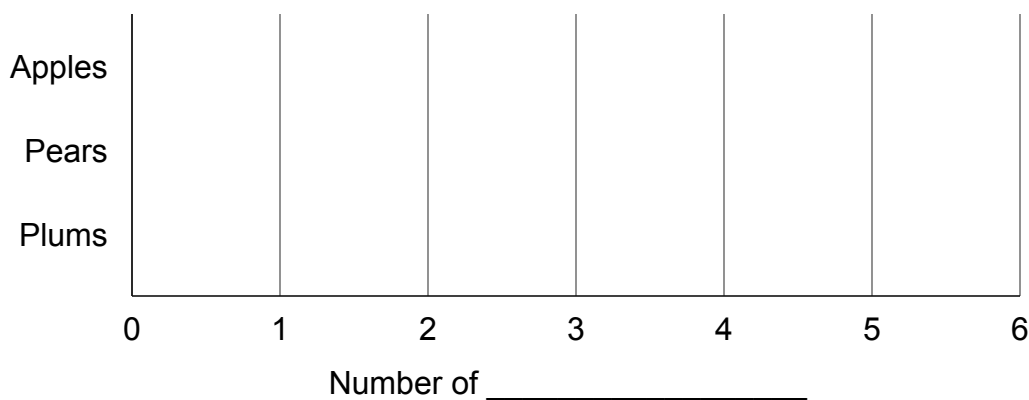
Fruit	Number of votes
Apples	
Pears	
Plums	

2. Build a bar graph

Use your table in task 1. Write a title and finish the number-axis label. Draw each bar from 0 to its count. Each space means 1 vote.

Graph title: _____

Choice



3. Check the total

Add your three counts. Does the total match the number of replies?

4. Explain a label

What does the word votes tell a reader about your graph?

5. Collect your own replies

Ask four different people: Which would you choose, cats or dogs? Each person chooses once. Write each reply in the table.

My pet survey

Person	Choice: Cats or Dogs
1	
2	
3	
4	

6. Put the replies in groups

Use your four replies in task 5. Count the votes for each pet. Write both counts, including 0 if a pet got no votes.

My pet survey

Pet	Number of votes
Cats	
Dogs	

7. Check your own data

How many votes did you collect in task 5? Explain how you checked the table in task 6.

TEACHER NOTES

Read directions aloud as needed. Check the represented counts and units, not just the choice of operation. Accept sensible titles and equivalent labels. Keep teacher models separate. For tasks 5-7, arrange four classmates, adults or family members to answer; do not substitute invented answers for the collection task. Record the actual results. Many count pairs are valid, including 0 and 4. A sum of 4 alone is not enough: also match every reply to its category.

TASK 1

Apples 5, Pears 4, Plums 3; 12 replies total.

Fruit choices

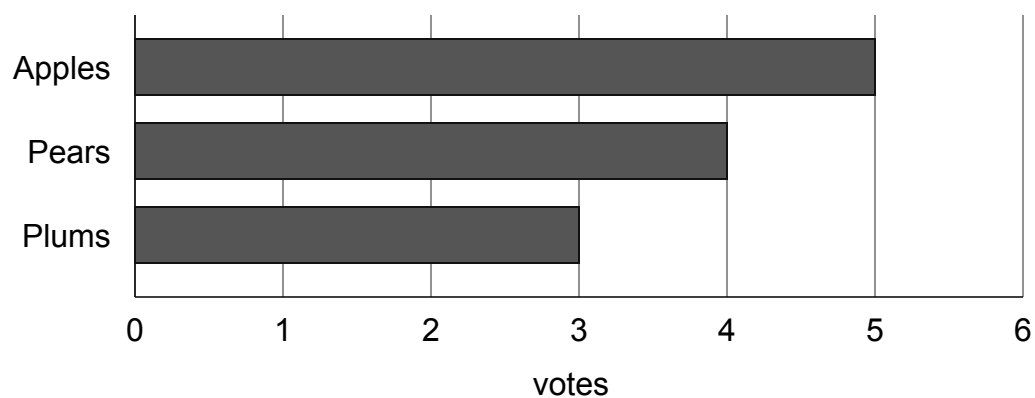
FRUIT	NUMBER OF VOTES
APPLES	5
PEARS	4
PLUMS	3

TASK 2

Sample title: Fruit choices. Axis label: Number of votes. Bars: Apples 5, Pears 4, Plums 3.

Fruit choices

Choice

**TASK 3**

$5 + 4 + 3 = 12$ votes. It matches the 12 replies.

TASK 4

It tells that the graph counts choices, not pieces of fruit.

TASK 5

Answers vary. Four actual replies, each Cats or Dogs, one per person. Use the named data source and check every count. For collected replies, answers depend on the people asked.

TASK 6

Counts depend on the actual four replies; Cats plus Dogs must equal 4. Use the named data source and check every count. For collected replies, answers depend on the people asked.

TASK 7

Four votes. Count each reply once in the right pet category; the two counts should add to 4.