

Build a Bar Graph

Turn individual choices into data you can read and explain.

GRADE 2 • 2.PS.1.d

2.PS.1.d "Excerpt: Organize and represent a data set using a bar graph with a title and labeled axes (limited to 25 or fewer data points for up to six categories, and limit increments of scale to multiples of 1 or 2)."

NAME _____

DATE _____

The marks show the count

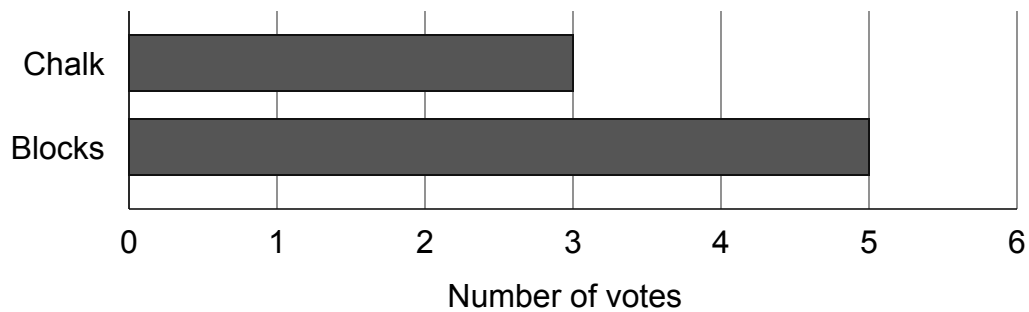
A bar starts at zero. Its length shows a count on the number scale. A picture graph uses a key to tell how many each picture stands for.

Try it together

How many children chose chalk? How does the bar show that number?

Practice choices

Choice



Start at 0 and follow the chalk bar. Its end lines up with 3 on the number scale. The bar shows 3 children. Each equal space on this scale means 1 child.

All survey data are made up for practice. Use a pencil. Show your own answers in the blank spaces.

1. Ask and count

These are 18 made-up survey replies. Each child chose once. Write a question these replies could answer. Count each choice and fill the table.

Survey replies - one reply per child

1. Apples

2. Crackers

3. Yogurt

4. Apples

5. Crackers

6. Yogurt

7. Apples

8. Crackers

9. Yogurt

10. Apples

11. Crackers

12. Yogurt

13. Apples

14. Yogurt

15. Apples

16. Yogurt

17. Apples

18. Apples

Count each choice

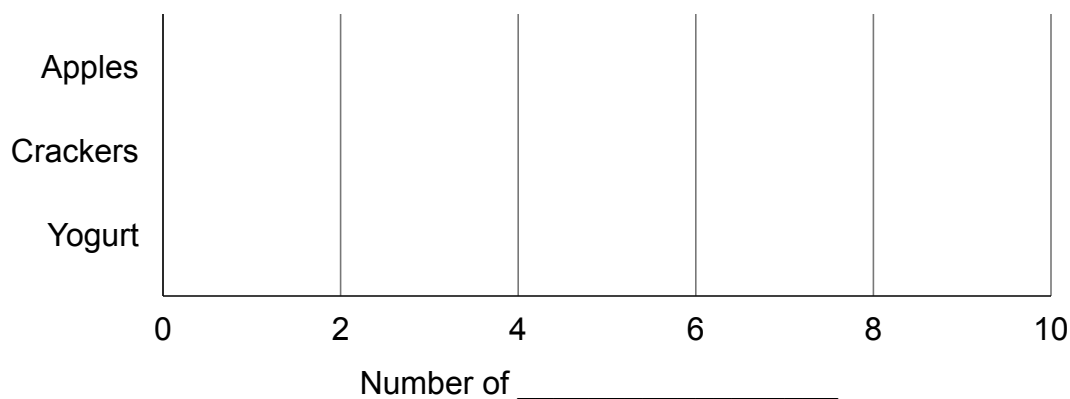
Choice	Number of votes
Apples	
Crackers	
Yogurt	

2. Build the bar graph

Use your table from task 1. Add a title and finish the number-axis label. Draw one bar for each choice. Start every bar at 0. Each space on the scale means 2 votes.

Graph title: _____

Choice

**3. Compare your bars**

Which choice has the most votes? How many more votes does it have than Crackers? Show the subtraction.

4. Check every reply

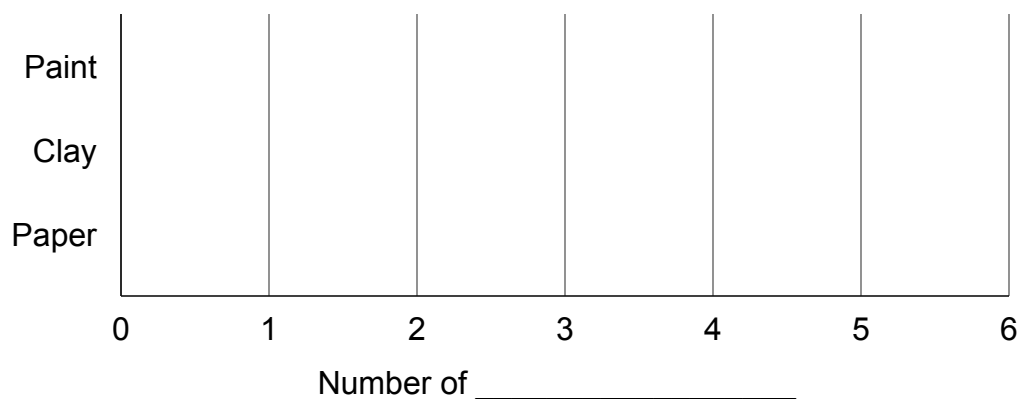
Add your three counts. How does your total help you check that no reply was lost or counted twice?

5. Use a different scale

A different group chose Paint 5 times, Clay 3 times and Paper 2 times. Make its bar graph. Here each space means 1 vote. Add a title and finish the number-axis label.

Graph title: _____

Choice

**6. Use the results**

How many children chose Apples and Crackers altogether? Show how you found out.

7. Tell what you found

Write your own question about the class graph. Answer it with a number from the data. Tell a partner or your teacher how the graph supports your answer.

TEACHER NOTES

Read directions aloud if helpful. Keep the key separate. Accept sensible graph titles and equivalent labels. Check counts, a zero starting point, equal scale spaces, and the picture key. Every numbered survey reply counts once. For open questions, accept different correct answers supported by the displayed data.

TASK 1

Which snack would each child choose? Counts: Apples 8, Crackers 4, Yogurt 6. Total 18; each reply counted once.

Count each choice

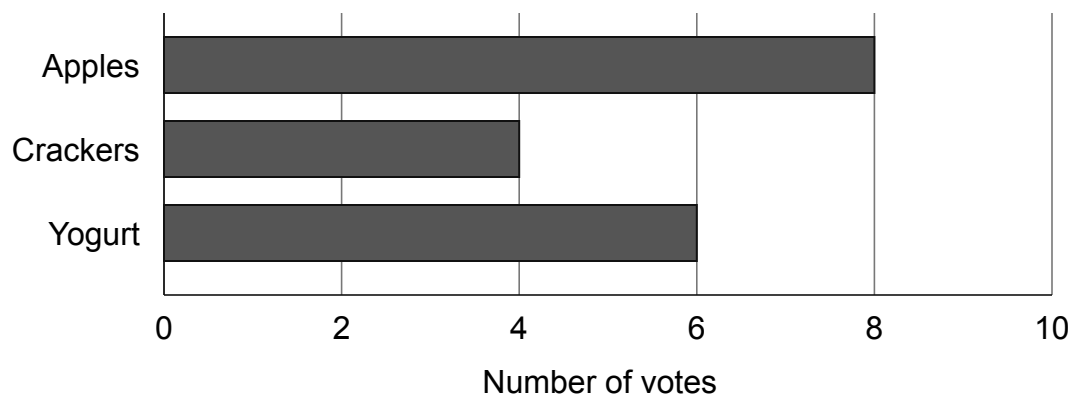
CHOICE	NUMBER OF VOTES
APPLES	8
CRACKERS	4
YOGURT	6

TASK 2

Title may be Class choices; number axis: Number of votes; choice labels are supplied. Bars end at 8, 4, 6, in the printed order.

Class choices

Choice

**TASK 3**

Apples has most: 8 votes. $8 - 4 = 4$ more than Crackers.

TASK 4

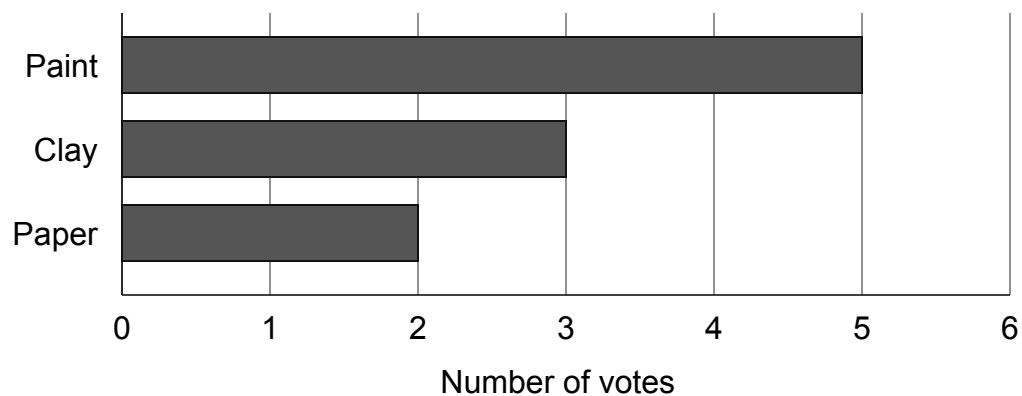
$8 + 4 + 6 = 18$. The total matches 18 replies. This checks the total, but also check each choice against the numbered replies.

TASK 5

Bars end at Paint 5, Clay 3, Paper 2. Sample title: Art choices. Number axis: Number of votes. The group is separate from tasks 1-4. Use its supplied counts.

Art choices

Choice



TASK 6

$8 + 4 = 12$ children. Use the original class survey in task 1, not a different group's data.

TASK 7

Answers vary. Example: How many chose Crackers? 4 children. Its bar ends at 4. Accept other correct data questions and explanations.