

Votes into Graphs

Turn individual choices into data you can read and explain.

GRADE 3 • TEKS 3.8.A

3.8.A "Excerpt: summarize a data set with multiple categories using a frequency table, dot plot, pictograph, or bar graph with scaled intervals; and"

NAME _____

DATE _____

The marks show the count

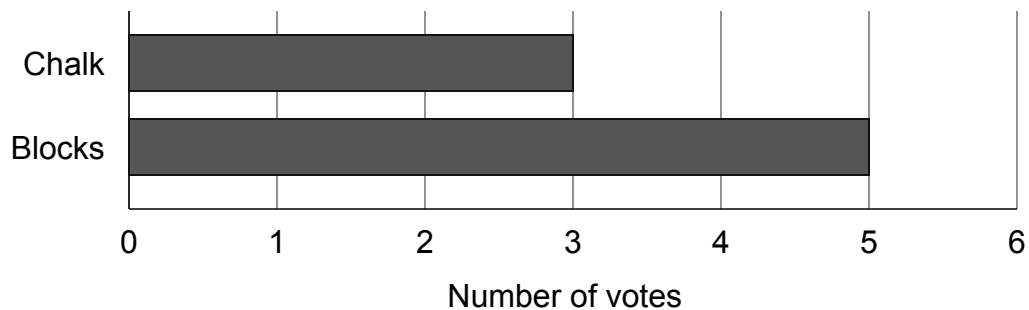
A bar starts at zero. Its length shows a count on the number scale. A picture graph uses a key to tell how many each picture stands for.

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 20 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. Art	2. Music	3. Drama	4. Art
5. Music	6. Drama	7. Art	8. Music
9. Drama	10. Art	11. Music	12. Drama
13. Art	14. Music	15. Art	16. Music
17. Music	18. Music	19. Music	20. Music

Count each choice

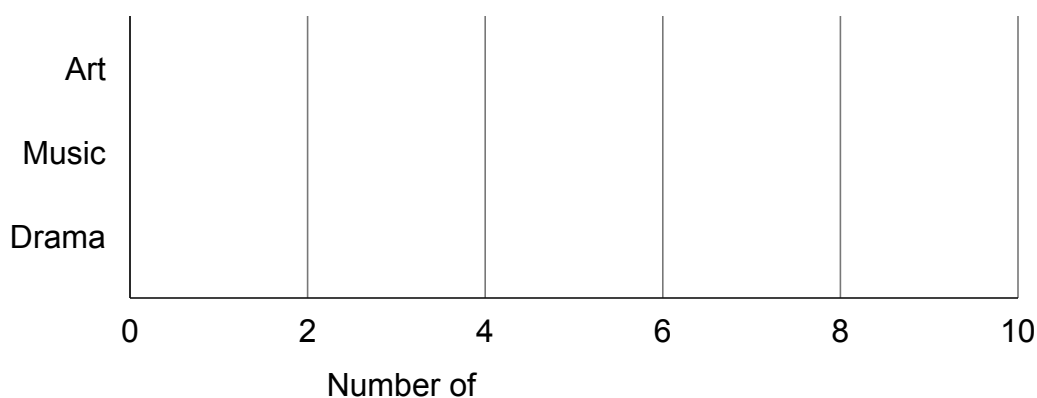
Choice	Number of votes
Art	
Music	
Drama	

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 Drama? 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. Show the same data with pictures

Use the counts in your task 1 table. Add a title. Draw circles in each row. Read the key: one circle stands for 2 votes.

Graph title: _____

Choice / Pictures

Art

Music

Drama



Key: 1 circle = 2 votes

6. Use the results

How many more children chose Art and Music together than chose Drama? Write both number steps.

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 club would each child choose? Counts: Art 6, Music 10, Drama 4. Total 20; each reply counted once.

Count each choice

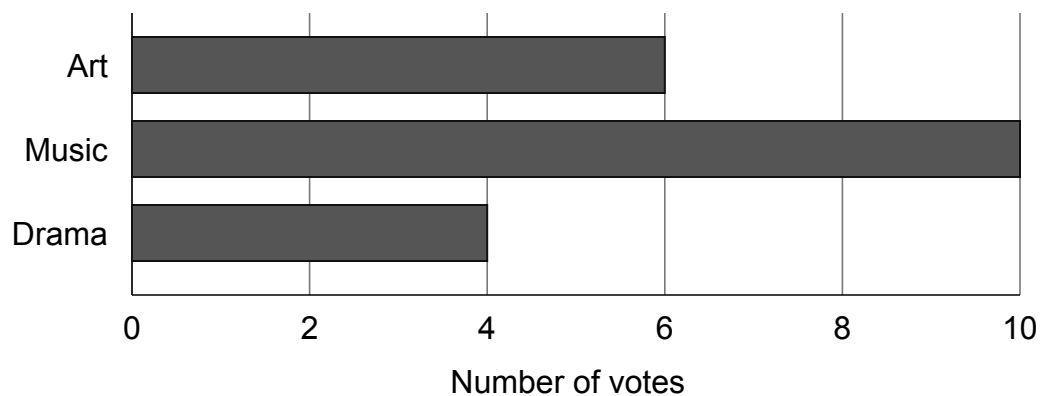
CHOICE	NUMBER OF VOTES
ART	6
MUSIC	10
DRAMA	4

TASK 2

Title may be Class choices; number axis: Number of votes; choice labels are supplied. Bars end at 6, 10, 4, in the printed order.

Class choices

Choice

**TASK 3**

Music has most: 10 votes. $10 - 4 = 6$ more than Drama.

TASK 4

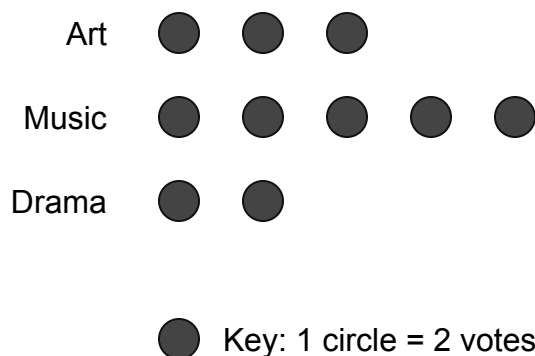
$6 + 10 + 4 = 20$. The total matches 20 replies. This checks the total, but also check each choice against the numbered replies.

TASK 5

Draw 3 circles for Art, 5 circles for Music, 2 circles for Drama. Sample title: Class choices. Key: 1 circle = 2 votes. Count by twos to check that each picture row represents the same count as its bar.

Class choices

Choice / Pictures



TASK 6

$6 + 10 = 16$; $16 - 4 = 12$ more children. Use the original class survey in task 1, not a different group's data.

TASK 7

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