

Data Detective Dash

Ask a question, collect votes and make a choice.

GRADE 4 • 4.MDR.6.2

4.MDR.6.2 "Excerpt: Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life."

NAME _____

DATE _____

Gather fair counts

A survey question needs clear choices. Record one answer per person. A graph helps you compare counts and answer a question about the group you surveyed.

Try it together

Another group asked 12 students: Which activity would you most like for a class break: art, logic games or nature puzzles?

Another group: 12 votes

Activity	Votes
Art	2
Logic games	7
Nature puzzles	3

Each student chose one activity. The counts total 12. Logic games received 7 votes, more than either other choice. Logic games was the most requested choice among these 12 students.

Use a pencil and survey 12 different classmates. Each chooses one of the three activities. Record counts and graph them yourself; explanations may be spoken to your teacher.

1. Ask your data question

Before collecting votes, write a question your data can answer. Example: Which activity gets the fewest votes? Use the three choices shown above.

2. Collect one vote each

Ask 12 different classmates: Which would you most like for a class break: art, logic games or nature puzzles? Each person must choose ONE. Count and record the votes. Check the total is 12.

Your survey

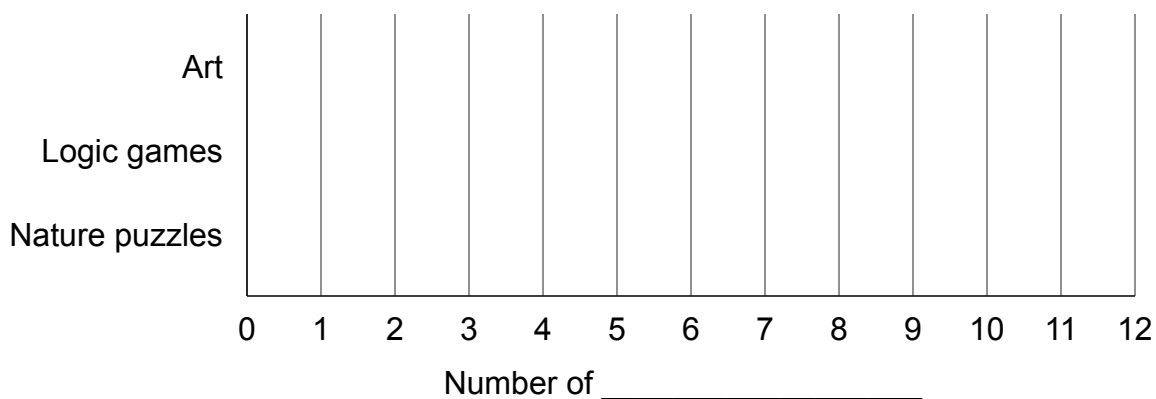
Activity	Votes
Art	
Logic games	
Nature puzzles	

3. Graph your results

Use your counts from task 2. Draw bars starting at 0, add your own title to the blank title line, and finish the number-axis label. Show zero votes with no bar.

Graph title: _____

Activity



4. Answer your question

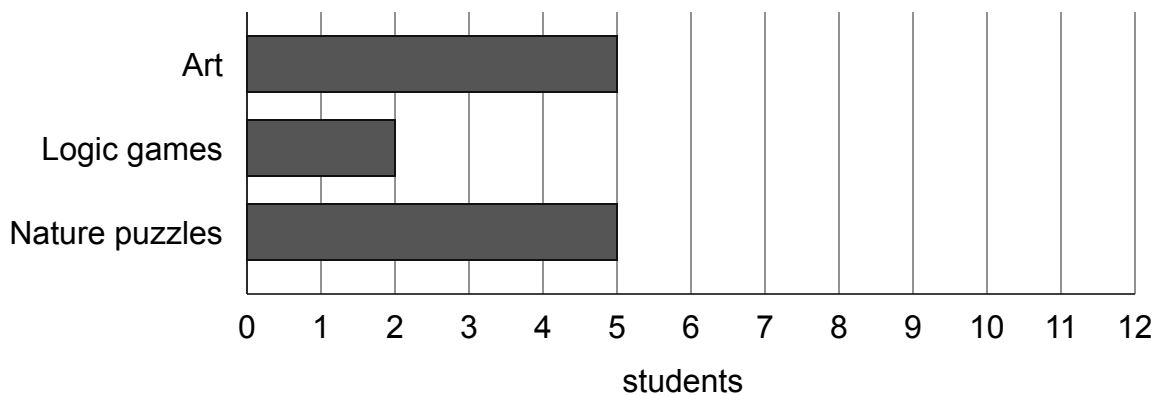
Use YOUR graph to answer the question you wrote in task 1. Include the counts that support your answer.

5. Compare a supplied survey

This different group also surveyed 12 students. How many more chose art than logic games? Is there a tie for the most requested activity?

Different group: activity votes

Activity



6. Recommend an activity

For YOUR surveyed group, recommend one activity for a class break. Support your choice with counts. If activities tie, explain a fair way to choose between them.

7. Know the limits

Can your survey prove that every student in the school wants your chosen activity? Explain what your data do show and whose opinions are missing.

TEACHER NOTES

Arrange access to 12 classmates who can each select exactly one option; groups may collect together but each learner records their own results. The fixed choices are deliberate, not a claim to cover every possible favorite activity. Check unique voters, totals, graph accuracy and explanations. Actual student results vary; the key graph is an example. Students may explain reasoning orally after recording the survey and graph.

TASK 1

Accept a question about the three activity counts, answerable from the survey. It should compare, total or identify a largest/smallest count.

TASK 2

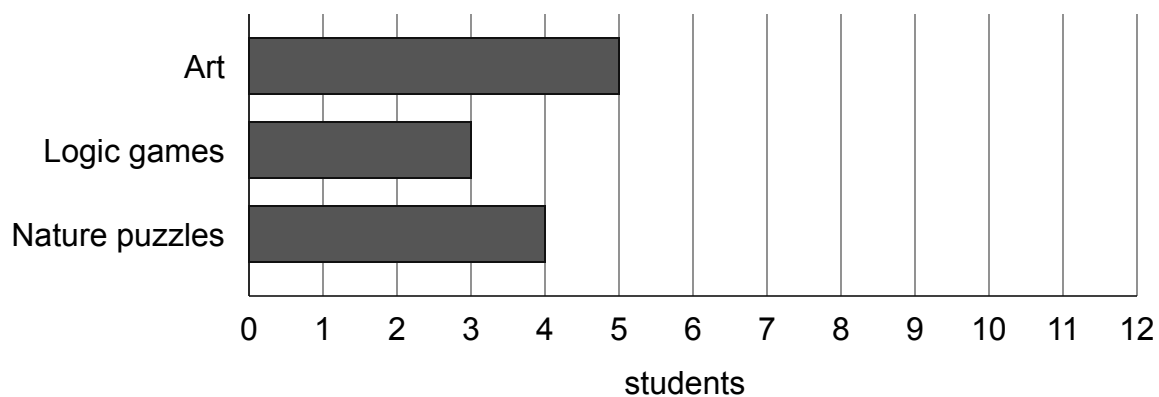
Counts vary. Confirm exactly one vote from each of 12 different classmates and a total of 12. Record zero if no one chose an activity.

TASK 3

The graph must match the student survey, with a title and Number of students as the axis label. The teacher graph is only one possible example.

Example only: your results will vary

Activity

**TASK 4**

Answers must address the student question and agree with the actual counts. Ties may be valid.

TASK 5

Art has 3 more votes than logic games: $5 - 2 = 3$. Art and nature puzzles tie with 5 votes each. Check each calculation and unit.

TASK 6

Answers vary. Typically recommend the activity with the most votes, using the actual counts. In a tie, accept a fair random choice, a tied-choice vote, or rotating the activities. Check each calculation and unit.

TASK 7

No. It shows preferences among only the 12 classmates surveyed, not everyone in school. Other students were not asked and might choose differently.