

Graph Prediction Detectives

Separate what happened from what might happen.

GRADE 3 • 3.PS.1.e.iv

3.PS.1.e.iv "Excerpt: Analyze data represented in pictographs and bar graphs, and communicate results orally and in writing: use characteristics of the data to draw conclusions about the data and make predictions based on the data"

NAME _____

DATE _____

Read the graph carefully

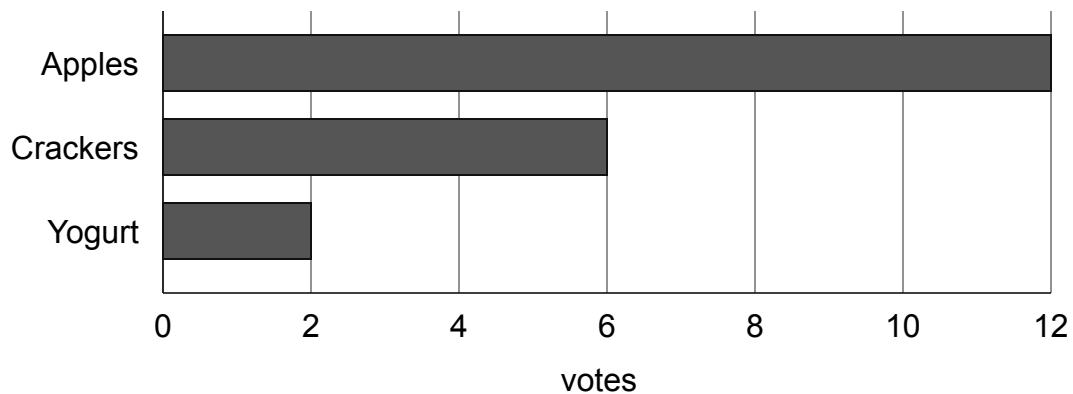
A conclusion describes what the data show. A prediction says what may happen later. Use graph counts as evidence, assuming the people and choices stay similar. A prediction is not certain; ties may prevent choosing one clear favorite.

Try it together

State a conclusion, then predict the top choice if these students vote again with the same options.

Snack Choice Votes

Snack



Apples received the most votes: 12, compared with 6 and 2. If preferences stay similar, Apples may receive the most votes again. Apples led this vote. Predicting Apples next time is reasonable, but not certain.

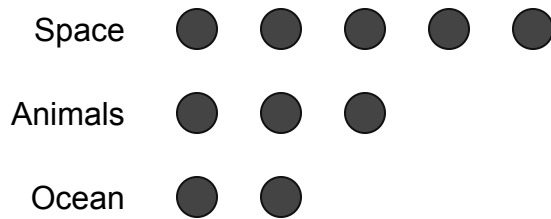
Write each answer. Then explain it aloud to a partner, pointing to the graph evidence. Use the named graph again when a task refers back to it.

1. Conclude, then predict

Write one conclusion about the votes and predict which topic may lead if the same class votes again. Give counts as evidence.

Story Votes

Topic / Pictures



● Key: 1 circle = 2 votes

2. Reject a guarantee

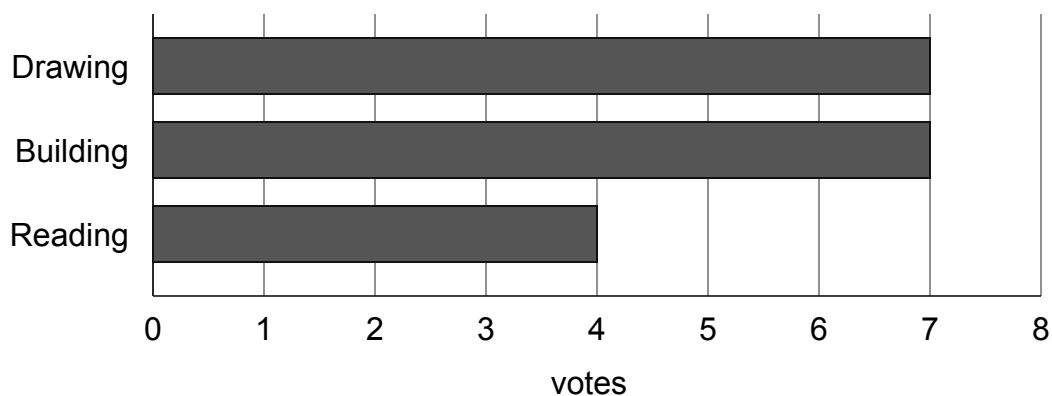
Use Story Votes. A partner says Ocean can never win a later vote. Is that a sound conclusion? Explain.

3. Reason about a tie

Can the graph support one clear favorite between Drawing and Building next time? Explain with counts.

Free-Time Votes

Activity

**4. Limit an exact prediction**

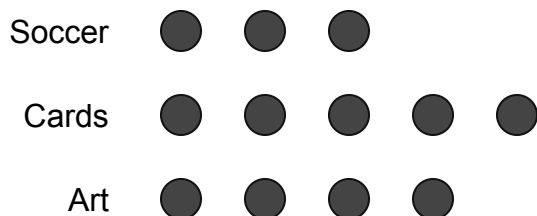
Use Free-Time Votes. Mia predicts exactly 7 votes for Drawing tomorrow. What can the graph tell us, and what can it not guarantee?

5. Use a second pictograph

State a conclusion. Predict the leading game if this group votes again. Give graph evidence.

Game Station Votes

Game / Pictures



● Key: 1 circle = 2 votes

6. Make a supported plan

Use Game Station Votes. Choose the two stations with the most votes. How many votes support that pair?

7. Predict for a new group

Would another class certainly prefer Cards? Explain what data you would collect for that class.

TEACHER NOTES

Check that conclusions match observed counts and predictions use evidence with appropriate uncertainty. A largest category need not be a majority. Do not treat ties, exact future counts or other groups as settled by this data. Listen to oral explanations as well as checking written answers.

TASK 1

Space led with 10 votes, compared with Animals 6 and Ocean 4. Space may lead again if preferences stay similar.

TASK 2

No. Ocean had fewer votes this time, but students can change their choices. A later result is not certain.

TASK 3

No. Drawing and Building are tied at 7 votes each, so these data alone do not favor one over the other.

TASK 4

It tells us Drawing received 7 in this vote. Tomorrow's count may change, so exactly 7 is not guaranteed.

TASK 5

Cards led with 10 votes, compared with Art 8 and Soccer 6. Cards may lead again if choices stay similar. Cards has the largest category, but its 10 votes are not more than half of all 24 votes.

TASK 6

Cards and Art, the two largest categories, with $10 + 8 = 18$ votes. This plan is based on the recorded preferences, not a guarantee about future choices.

TASK 7

No. These votes came from one group. Survey the other class using the same choices before deciding what it prefers.