LESSON MAKER PRO

Graph Detectives

Use graph clues to make smart predictions.

GRADE 3 · 3.PS.1.e.iii

3.PS.1.e.iii "Analyze data represented in pictographs and bar graphs, and communicate results orally and in writing: make inferences about data represented in pictographs and bar graphs;"

NAME _____ DATE _____

MAKE AN INFERENCE

Read the graph title, labels, and key. An inference is a smart prediction based on the data, so use the greatest or least amount to support your idea.

WORKED EXAMPLE

Bar graph: Favorite Pets. Cats: 17, Dogs: 13, Fish: 11. Which pet is likely most popular?

1. Find the greatest number: 17.
2. The 17 votes are for cats.
3. Use the data to make a prediction.

Answer: Cats are likely the most popular pet.

PRACTICE 5 problems

1 Bar graph: Recess Games. Soccer: 9, Tag: 6, Hopscotch: 3. Which game is likely most popular?

ANSWER _____

2 Pictograph, Key: ★ = 5 students. Pizza: ★★★. Tacos: ★. Which lunch may need more trays tomorrow?

ANSWER _____

3 Bar graph: Fruit Chosen. Apples: 7, Bananas: 2, Pears: 5. If equal amounts are packed tomorrow, which fruit may have the most left over?

ANSWER _____

4 Pictograph, Key: ● = 2 birds. Robins: ●●●●●. Finches: ●●●. Sparrows: ●. Which bird is likely easiest to spot tomorrow?

ANSWER _____

5 Bar graph: Library Visits. Monday: 2, Tuesday: 5, Wednesday: 7. Which day should the librarian expect to be busiest next week?

ANSWER _____

APPLY IT Show your work

1 The garden club asked students what to plant. Key: ● = 3 votes. Carrots: ●●●●. Beans: ●●. Peas: ●●●. The club can plant one extra row. What should it plant? Write a sentence using the data.

WORK SPACE

ANSWER _____

2 At the park, a bar graph shows ride choices. Scooters: 5, Bikes: 10, Skateboards: 8. The park can set out one extra helmet rack. Where should it put the rack? Write a sentence using the data.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Pictograph, Key: ▲ = 2 votes. Board Games: ▲▲▲▲. Drawing: ▲▲▲. Building: ▲▲. Then 3 more students vote for Building. Will Building become the most popular choice? Explain.

_____

_____

ANSWER KEY

Graph Detectives

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Bar graph: Recess Games. Soccer: 9, Tag: 6, Hopscotch: 3. Which game is likely most popular?	**Soccer is likely the most popular game.**
2	Pictograph, Key: ★ = 5 students. Pizza: ★★★. Tacos: ★. Which lunch may need more trays tomorrow?	**Pizza may need more trays.**
3	Bar graph: Fruit Chosen. Apples: 7, Bananas: 2, Pears: 5. If equal amounts are packed tomorrow, which fruit may have the most left over?	**Bananas may have the most left over.**
4	Pictograph, Key: ● = 2 birds. Robins: ●●●●●. Finches: ●●●. Sparrows: ●. Which bird is likely easiest to spot tomorrow?	**Robins are likely easiest to spot.**
5	Bar graph: Library Visits. Monday: 2, Tuesday: 5, Wednesday: 7. Which day should the librarian expect to be busiest next week?	**Wednesday is likely to be busiest.**

PART 2 · APPLY IT

1. **The club should plant carrots because carrots got 12 votes, the most votes.** Count the symbols using the key. Carrots have 12 votes, peas have 9 votes, and beans have 6 votes.
2. **The park should put the extra helmet rack by the bikes because bikes had 10 choices, the most.** Compare the three bar values. Bikes have the greatest number of choices.

CHALLENGE

No. Building would have 7 votes, and Board Games have 8 votes, so Board Games would still be most popular.

Accept equivalent data-supported sentences for inference questions. For the challenge, students must show that Building has 7 votes and Board Games has 8 votes.