LESSON MAKER PRO

# Picture the Data

*Read scaled pictographs and frequency tables.*

**GRADE 3 · 3.D.1**

**3.D.1** "Collect, organize, and analyze data. Collect and organize a data set with multiple categories using a frequency table, line plot, pictograph, or bar graph with scaled intervals..."

NAME _____ DATE _____

## READ THE KEY

In a pictograph, each symbol can stand for more than one item. Use the key to find each category's total, then add or subtract totals to answer the question.

## WORKED EXAMPLE

How many stickers are shown altogether?

**Stickers Collected**

| | |
|---|---|
| Red | ★ |
| Blue | ★ ★ |
| Green | ★ ★ ★ |

Key: ★ = 5 stickers

1. Red: 1 × 5 = 5 stickers.
2. Blue: 2 × 5 = 10 stickers.
3. Green: 3 × 5 = 15 stickers.
4. Add: 5 + 10 + 15 = 30 stickers.

**Answer: 30 stickers**

## PRACTICE 6 problems

**1** How many students chose biking?

**Favorite Ways to Move**

| | |
|---|---|
| Skating | ● ● ● |
| Biking | ● ● ● ● |
| Walking | ● |

Key: ● = 2 students

ANSWER _____

**2** How many more students chose drawing than singing?

**Favorite Art Activities**

| | |
|---|---|
| Drawing | ◆ ◆ ◆ |
| Singing | ◆ |
| Acting | ◆ ◆ |

Key: ◆ = 4 students

ANSWER _____

**3** How many students chose an instrument altogether?

**INSTRUMENT CHOICES**

| Instrument | Students |
|---|---|
| Violin | 3 |
| Drum | 6 |
| Flute | 8 |

**ANSWER** _____

**4** How many more students chose apples than pears?

**FRUIT CHOICES**

| Fruit | Students |
|---|---|
| Apples | 9 |
| Pears | 3 |
| Plums | 7 |

**ANSWER** _____

**5** There are 18 votes altogether. How many votes belong in the blank?

**SMOOTHIE VOTES**

| Flavor | Votes |
|---|---|
| Berry | 8 |
| Mango | 6 |
| Grape | ___ |

**ANSWER** _____

**6** How many students chose comics and puzzles altogether? How many more chose comics than games?

**Favorite Rainy-Day Activities**

| | |
|---|---|
| Comics | ■ ■ ■ ■ |
| Puzzles | ■ ■ ■ |
| Games | ■ |

Key: ■ = 2 students

**ANSWER** _____

## APPLY IT Show your work

**1** Your class votes on food for a class party. Two more students vote for tacos after the chart is made. How many students now vote for tacos or pizza?

**Class Party Food Votes**

| | |
|---|---|
| Pizza | ▲ ▲ ▲ ▲ |
| Tacos | ▲ ▲ ▲ |
| Soup | ▲ |

Key: ▲ = 2 students

**ANSWER** _____

**2** Students vote for a recess game. The students who chose tag and kickball go to the field first. How many students are still waiting?

**RECESS GAME VOTES**

| Game | Students |
|---|---|
| Tag | 8 |
| Kickball | 6 |
| Chalk games | 4 |
| Jump rope | 2 |

**ANSWER** _____

## CHALLENGE One step up

How many students must join the two smaller clubs altogether so that each club has as many members as the largest club? Explain how you know.

**After-School Clubs**

| | |
|---|---|
| Art | ♥ ♥ ♥ |
| Chess | ♥ ♥ |
| Dance | ♥ |

Key: ♥ = 4 students

WORK SPACE AND ANSWER

**ANSWER KEY**

# Picture the Data

**GRADE 3 · 3.D.1**

## PART 1 · PRACTICE

| # | PROBLEM | ANSWER |
|---|---|---|
| 1 | How many students chose biking? | **8 students** |
| 2 | How many more students chose drawing than singing? | **8 students** |
| 3 | How many students chose an instrument altogether? | **17 students** |
| 4 | How many more students chose apples than pears? | **6 students** |
| 5 | There are 18 votes altogether. How many votes belong in the blank? | **4 votes** |
| 6 | How many students chose comics and puzzles altogether? How many more chose comics than games? | **14 students; 6 students** |

## PART 2 · APPLY IT

1. **16 students** Tacos have 6 votes, then gain 2 for a total of 8. Add the 8 taco votes and 8 pizza votes to get 16.
2. **6 students** There are 20 students altogether. Subtract the 8 tag students and 6 kickball students to get 6 students waiting.

## CHALLENGE

**12 students. Art has 12 members, chess has 8, and dance has 4. Chess needs 4 more and dance needs 8 more, so 4 + 8 = 12.**

Accept answers without units when the number and meaning are clear. For the challenge, accept any explanation that finds how many members each smaller club needs and adds those amounts.