

Graph It Right

Use titles, labels, keys, and data.

GRADE 3 • MA.3.DP.1.1

MA.3.DP.1.1 "Collect and represent numerical and categorical data with whole-number values using tables, scaled pictographs, scaled bar graphs or line plots. Use appropriate titles, labels and units."

NAME _____

DATE _____

MAKE DATA CLEAR

A table or graph needs a clear title and labels. A scaled pictograph key tells what each symbol stands for.

WORKED EXAMPLE

A book pictograph has the key
[book] = 6 books. Mystery has 5
[book] symbols. How many books?

1. Each symbol means 6 books.
2. There are 5 symbols.
3. 5 groups of 6 = 30.

Answer: 30 books

PRACTICE 5 problems

- 1** Key: [sun] = 4 votes. Rocket has 7 [sun] symbols. How many votes?

ANSWER _____

- 2** Cats got 19 votes. Dogs got 11 votes. How many more votes did cats get?

ANSWER _____

- 3** A scaled bar graph uses 1 block = 4 points. A team has 28 points. How many blocks are needed?

ANSWER _____

- 4** Make a table titled "Distances Jumped." Use columns Distance (inches) and Number of Jumps for: 8, 8, 16, 24.

ANSWER _____

- 5** A graph compares Soccer, Dance, and Reading. Which axis should be labeled "Number of Students"?

ANSWER _____

APPLY IT Show your work

- 1** A recess survey shows Tag, 16 students; Relay, 28 students; Four Square, 36 students. Make a scaled pictograph titled "Favorite Recess Games." Use [*] = 4 students.

WORK SPACE

ANSWER _____

- 2** Plant heights, in inches, are 10, 13, 10, 16, 13, 10. Make a line plot titled "Plant Heights." Label it Height (inches).

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A club survey shows Chess, 14 members; Coding, 28 members; Art, 42 members. Make a pictograph titled "Club Choices" using [*] = 14 members. Explain why no half symbols are needed.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Key: [sun] = 4 votes. Rocket has 7 [sun] symbols. How many votes?	28 votes
2	Cats got 19 votes. Dogs got 11 votes. How many more votes did cats get?	8 more votes
3	A scaled bar graph uses 1 block = 4 points. A team has 28 points. How many blocks are needed?	7 blocks
4	Make a table titled "Distances Jumped." Use columns Distance (inches) and Number of Jumps for: 8, 8, 16, 24.	Distances Jumped: 8 inches, 2 jumps; 16 inches, 1 jump; 24 inches, 1 jump.
5	A graph compares Soccer, Dance, and Reading. Which axis should be labeled "Number of Students"?	The vertical axis

PART 2 • APPLY IT

- Favorite Recess Games; Key: [*] = 4 students; Tag: [*][*][*][*]; Relay: [*][*][*][*][*][*]; Four Square: [*][*][*][*][*][*][*][*].** Divide each number of students by 4. Tag needs 4 symbols, Relay needs 7 symbols, and Four Square needs 9 symbols.
- Plant Heights, Height (inches): 10: XXX; 13: XX; 16: X.** Count each height. There are 3 marks at 10, 2 marks at 13, and 1 mark at 16.

CHALLENGE

Club Choices; Key: [*] = 14 members; Chess: [*]; Coding: [*][*]; Art: [*][*][*]. No half symbols are needed because 14, 28, and 42 are all groups of 14.

Accept neatly drawn versions of the pictographs and line plot when they have the required title, labels, units, and correct scale. Symbol shapes may vary if the key is clear.