Picture Graphs

Grades 1-2 · Data and Graphs unit, lesson 2 of 8 · Free lesson

In this pack: page 1 teacher guide · page 2 task cards (cut apart) · page 3 practice · page 4 answer key.

Common Core Standard: 1.MD.C.4 and 2.MD.D.10

1.MD.C.4: Organize, represent, and interpret data with up to three categories. Pupils ask and answer questions about the total number of data points, how many are in each category, and how many more or less are in one category than in another. 2.MD.D.10: Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

OVERVIEW

A picture graph looks like the friendliest graph in the book, and that is exactly why it trips pupils up. The pictures are easy to count, so pupils count them and stop, even when the key says one picture stands for 2 or 5. This lesson builds one habit above all others: read the key first, then count the row, then count on by the key value. It starts with a key of 1 so the reading is honest, moves to a key of 2 with counting by twos, and stretches to a key of 5. Half pictures appear only with a key of 2, where a half picture is worth exactly 1, so every total stays whole and clear.

MATERIALS

- Printed picture-key task cards (page 2 of this worksheet) and scissors for each pupil
- The practice page (page 3) and pencils
- Counters or sticky notes for pupils who want to cover each picture as they count it

DIRECTIONS

1. Teach the lesson slides first, saying the key out loud together before every graph is counted.
2. Hand out the task cards. Pupils cut them apart, read the key on each card first, then count the row and answer.
3. Set the practice page. The sentence frame at the foot of page 3 makes pupils name the key before the count.
4. Mark together from the answer key on page 4, then give the exit ticket from the final slides.

EVIDENCE OF LEARNING

Success looks like this: the pupil reads the key before counting, counts the pictures in a row, counts on by the key value to give the true value with its label, and counts a half picture with a key of 2 as 1.

© MathClearGuide.com · Free lesson resource

Task Cards: Cut Apart and Solve

Cut along the dashed lines. For each card, read the key first, then count the row, then answer.

Card 1

Dogs 
Cats 
Fish 

Key: 1 picture stands for 1 child

Key of 1. How many children chose dogs?

_____ **Answer:** _____

Card 2

Apples 
Bananas 
Oranges 

Key: 1 picture stands for 1 child

Key of 1. How many children chose bananas?

_____ **Answer:** _____

Card 3

Red 
Blue 
Green 

Key: 1 picture stands for 1 child

Key of 1. How many more children chose blue than red?

_____ **Answer:** _____

Card 4

Sam 
Ana 
Kim 

Key: 1 picture stands for 2 books

Key of 2. How many books did Ana read?

_____ **Answer:** _____

Card 5

Soccer 
Swim 
Dance 

Key: 1 picture stands for 2 children

Key of 2. How many children chose soccer?

_____ **Answer:** _____

Card 6

Roses 
Tulips 

Key: 1 picture stands for 2 flowers

Careful, key of 2 with a half picture. How many roses?

_____ **Answer:** _____

Card 7

Red Team 
Blue Team 
Green Team 

Key: 1 picture stands for 5 points

Stretch, key of 5. How many points did the Blue Team score?

_____ **Answer:** _____

Card 8

Tag 
Swings 
Slide 

Key: 1 picture stands for 2 children

Key of 2. How many more children chose swings than tag?

_____ **Answer:** _____

MathClearGuide.com

Picture Graphs

Name: _____ Date: _____ Class: _____

Part A - Favourite Season (Key of 1)

Our class voted for a favourite season. Read the graph and answer.

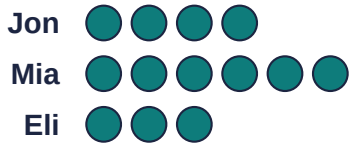


Key: 1 picture stands for 1 child

1. How many children chose summer? _____ children
2. How many children chose spring and fall in all? _____ children

Part B - Marbles Collected (Key of 2)

Three friends collected marbles. The key is 2, so count on by twos.



Key: 1 picture stands for 2 marbles

1. How many marbles did Mia collect? _____ marbles
2. How many more marbles did Jon collect than Eli? _____ marbles

Part C - Data Stories

One graph, two stories. The key says 1 picture stands for 2 pupils.

1. The Art row shows 5 pictures. How many pupils chose Art?

Answer: _____ pupils

2. The Music row shows 3 pictures. How many more pupils chose Art than Music?

Answer: _____ more pupils

Say it like a mathematician:

The key says 1 picture stands for _____. I counted _____ pictures in the row, so the row is worth _____.

MathClearGuide.com

Answer Key - Picture Graphs

Task Cards

1. 5 children chose dogs.
2. 6 children chose bananas.
3. 2 more children (Blue 5 and Red 3).
4. 8 books (4 pictures counted by twos).
5. 10 children chose soccer.
6. 7 flowers (3 whole pictures give 6 and the half picture gives 1).
7. 20 points (4 pictures counted by fives).
8. 4 more children (Swings 12 and Tag 8).

Part A - Favourite Season (Key of 1)

1. 7 children chose summer.
2. 9 children (Spring 5 and Fall 4: 5 + 4 = 9).

Part B - Marbles Collected (Key of 2)

1. 12 marbles (6 pictures counted by twos).
2. 2 more marbles (Jon 8 and Eli 6: 8 - 6 = 2).

Part C - Data Stories

1. 10 pupils (5 pictures counted by twos).
2. 4 more pupils (Art 10 and Music 6: 10 - 6 = 4).

Exit Ticket (from the slides)

1. 7 pupils. With a key of 1, 7 pictures stand for 7 pupils.
2. 12 stickers. Count the 6 pictures by twos: 2, 4, 6, 8, 10, 12.
3. 5 votes. Two whole pictures give 4, and the half picture gives 1 more: 4 + 1 = 5.

MathClearGuide.com