

The Sharing Day

An Equal Groups Schema Story

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About This Book

This book is part of the Word Problem Intervention Program by Numeracy Consultants. It introduces the Equal Groups schema — a structure that helps students understand multiplication and division word problems.

In Equal Groups problems, objects are arranged into groups of the same size. Students learn to ask:

- How many groups are there?
- How many are in each group?
- What is the total?

Use this read aloud to build schema awareness before students ever solve a problem on their own.

Dedication

For every student who has ever looked at a math problem and wondered where to begin — this book is your first step. 🌱

The Equal Groups Schema



$$\text{Groups} \times \text{Size} = \text{Total}$$

$$\text{Total} \div \text{Groups} = \text{Size} \quad | \quad \text{Total} \div \text{Size} = \text{Groups}$$



Milo and Ms. Chen in the classroom

Chapter 1: Milo's Big Job

Milo loved helping his teacher, Ms. Chen.

One morning, Ms. Chen said, "Milo, I need your help. We have new boxes of crayons for the class!"

Milo's eyes lit up. "I can do that!" he said.



4 boxes — 6 crayons in each box

The Crayon Boxes

"There are 4 boxes," said Ms. Chen. "Each box has 6 crayons inside."

Milo looked at the boxes. They were all the same size. They all had the same number of crayons.

"They are all equal!" said Milo.

 4 boxes × 6 crayons each = ? crayons in all

of Groups

Size of Each Group

Product (unknown)

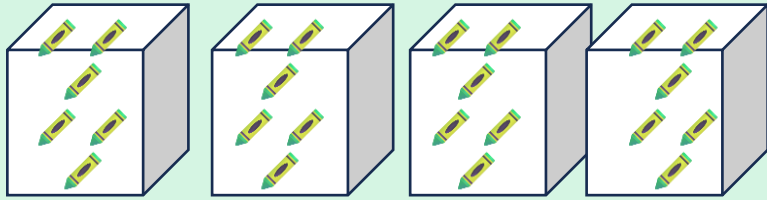
Equal Groups

Ms. Chen knelt down next to Milo.

"When groups are all the same size, we call them equal groups," she said.

"Every box has 6. None have more. None have less. They are equal!"

Milo nodded. "So I need to find out how many crayons there are altogether!"



4 equal groups — 6 in each

 Equal Groups = same number in every group. Ask: How many groups? How many in each?



1 2 3 4

Counting groups and checking each group

Counting Together

Milo counted the boxes:

"1 box, 2 boxes, 3 boxes, 4 boxes."

Then he opened each one and counted the crayons: "1, 2, 3, 4, 5, 6."

"4 groups," he said. "6 in each group."

Ms. Chen smiled. "Now — how many crayons are there in all?"

 Schema so far: # of Groups = 4 | Size of Each Group = 6 | Total = ?



6 → 12 → 18 → 24 ✓

$4 \times 6 = 24$ crayons!

Finding the Total

Milo thought hard.

"I can skip count!
6 ... 12 ... 18 ... 24!"

"There are 24 crayons altogether!" he shouted.

Ms. Chen clapped. "You used equal groups to find the total. That's exactly right, Milo!"

✓ 4 groups \times 6 in each group = 24 crayons in all

Groups \times Size = Total

Chapter 2: Sharing the Stickers

After lunch, Ms. Chen had another job for Milo.


"I have 15 stickers. I want every student at your table to get the same number. There are 3 students."

"How many stickers will each student get?" she asked.

Milo scratched his head. "This one is tricky..."



15 stickers, 3 students — how many each?

 Total = 15 stickers | # of Groups = 3 students | Size of Each Group = ?



Dealing out stickers one at a time

Sharing Equally

"I know the total — 15," said Milo. "And I know there are 3 groups."

"But I need to find how many go in each group."

He dealt the stickers one at a time, like cards: one for you, one for you, one for me...

Until all 15 were gone.

💡 Know the Total and the Number of Groups? → Divide to find the Size of Each Group!



3 students \times 5 stickers each = 15 total

Each Group Gets 5

"5!" said Milo. "Each student gets 5 stickers!"

Ms. Chen nodded. "You used the same equal groups idea — but this time you divided instead of multiplied."

"It's the same schema," said Milo. "Just a different piece is missing!"

✓ 15 total \div 3 groups = 5 in each group

Total \div Groups = Size

Chapter 3: The Cookie Problem

At snack time, Milo's friend Priya had 12 cookies.

"I want to put them in bags," she said, "with 4 cookies in each bag. How many bags will I need?"

Milo looked at the cookies.

"I know the total — 12. And I know 4 go in each group. But I don't know how many groups!"

"I have to find the number of groups this time," he said.



12 cookies — how many bags of 4?



Total = 12 cookies



Size of Each Group = 4



of Groups = ?

How Many Bags?

Milo made groups of 4:

"1 group... 2 groups... 3 groups!"

All 12 cookies were in bags.

"3 bags!" he said.

Priya smiled. "You keep using that equal groups trick!"

"It works every time," said Milo proudly.



3 bags \times 4 cookies each = 12 total

✓ 12 total \div 4 in each group = 3 groups

Total \div Size = Groups

The Equal Groups Schema

Three kinds of Equal Groups problems — one schema, different missing pieces:

Multiplication

×

You know the number of groups and
the size of each group.
Find the total.

Groups × Size = Total

4 boxes × 6 crayons = 24 

Partitive Division

÷

You know the total and the number of
groups.
Find the size of each group.

Total ÷ Groups = Size

15 stickers ÷ 3 kids = 5 each 

Measurement Division

÷


You know the total and the size of each
group.
Find the number of groups.

Total ÷ Size = Groups

12 cookies ÷ 4 each = 3 bags 

Build the Schema

Read the problem. Fill in what you know. Find the missing piece.

 There are 5 tables in the classroom. Each table has 4 pencils on it.
How many pencils are there in all?

of Groups

Write the number:

×


Size of Each Group

Write the number:

=

Total

Solve for the total:

 **Think aloud:** "What are the groups? How many groups are there? How many are in each group? Do I know the total, or am I trying to find it?"