



2nd Grade Unit 8: Reasoning with Equal Groups



Overview:

In this unit, students will work with equal groups. They will create arrays to solve problems. Students will extend their knowledge of equal groups to determine odd and even. Students will write and solve equations to represent equal groups and arrays with up to 5 rows and 5 columns. Students will also identify, describe, create, and extend numerical patterns in addition and subtraction as related to equal groups and arrays. *Students will continue to review and develop their understanding of the value of numbers to 1,000, the counting sequence, and solve real world problems involving addition and subtraction within 1,000.

Learning Targets:

In Unit 8, students will:

- Understand and model multiplication as equal groups and as rectangular arrays.
- Determine whether a group (up to 20) has an odd or even number of objects.
- Explore the concept that if a number can be decomposed (broken apart) into two equal addends (e.g., $10 = 5 + 5$), then that number (10 in this case) is an even number.
- Use rectangular arrays and equal groups to gain a deeper understand of multiplication and work with repeated addition. This is a building block for multiplication in 3rd Grade.
- Understand the commutative property of addition to discover that students can add either the rows or the columns and still arrive at the same solution.

Key Vocabulary: (linked to GA DOE Interactive Glossary)

Addends	Addition	Array	Columns
Equal sharing/forming equal sized groups		Equation	Even
Odd	Pairing	Product	Rectangular
Rows	Sum	Total	

Supporting Resources:

<http://ctlslearn.cobbk12.org/>

<https://gavirtual.instructure.com/courses/34720#modules>

[IXL – Repeated Addition Arrays](#)

[Mr. Nussbaum - Rectangular Arrays - Online \(mrnussbaum.com\)](http://mrnussbaum.com)

[Even or Odd Tic Tac Toe Game \(math-play.com\)](http://math-play.com)

<https://toytheater.com/graph-square/>