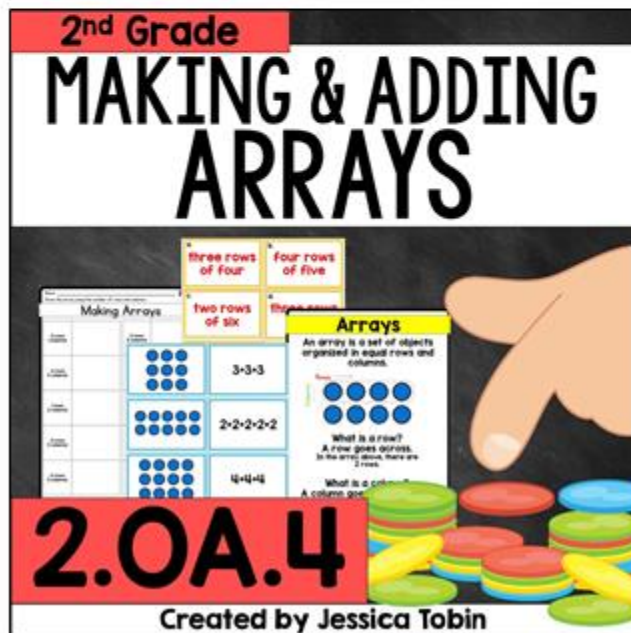


2.OA.4

This math unit provides lesson plans and math group resources to use while teaching the standard **2.OA.4**, which states that students will be able to...

"Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends."



Using This Unit

Let's look at the structure of this unit.

Pre-Assessment

- A pre-assessment is included that will help give you an idea of where your students are with this specific standard. Give this pre-assessment prior to any lessons on the standard.

Daily Lessons





- Whole Group- The whole group lesson will typically involve an anchor chart or poster to discuss. This should take about five minutes to complete.
- Partner Practice- The whole group activity will be followed up with a partner practice activity. It will build on the knowledge the students learned or reviewed in the whole group lesson. This should take between 5-10 minutes.
- MATH Groups- There are four break-apart groups to do a day. Each rotation can last between 10-15 minutes depending on how long you get for your math block.
 - Math Writing*- 2 writing options are given each day (one full sized page OR a cut and glue strip for a math journal)
 - Apply Skills*- You will find a variety of practice resources here, such as printables, interactive notebooks, or partner activities.
 - Teacher Time- Small group differentiation can happen here. Most days will include a 'Remediation' activity, an 'On-Level' activity, and an 'Enrichment' activity.
 - Hands-on Practice- These centers will give your students chances to get practice with manipulatives and other engaging activities.
- Exit Slip- Every single day will come with an exit slip for students to show what they learned that day. Teacher will cut apart the three strips.

Assessment

- This is to be completed after all lessons and math groups are taught.

Daily Lesson Plans

Each standards-based math unit comes with daily lessons. Some are 3 days, while others may be 5+ days, depending on how complex the standard is. There are **4 main components** of each daily lesson.

2nd Grade Math: 2.OA.4 Lesson #1	2.OA.4 lesson 1 I can use addition to find the number of objects arranged in arrays. I can write an equation that represents an array.
Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	
Activities	Materials
Whole Group Today's focus is going to be on drawing and counting objects within arrays. Teacher will introduce and discuss the mini poster about what arrays are. Then, the teacher will focus on rows and columns and how to count them. Teacher will model how to identify the rows, columns, and total number of objects using the array cards provided.	
Partner Practice Students will participate in a Mix-Pair-Share activity. The teacher will display one array card at a time under the document camera or on the board. Students will mix up around the room, pair up with a partner, and share how many rows and columns the array has.	
Math Groups M- Students will write about arrays. Teacher will choose the full-page writing sheet OR the cut apart strips for math journals. A- Teacher will either copy the two printables front/back for students to complete with pencils or slide them into sheet protectors for students to complete with dry erase markers. T-GREEN: Students will draw a task card telling them how many rows and columns to create. They will practice drawing arrays. A-L: Students will spin their array. They will spin a number for rows, and then spin a number for columns. They will show their array. PURPLE: Students will draw task cards asking them to draw two arrays for one number. So, if they drew a 12, they may draw 2 rows of 6 or 4 rows of 3. H- Students will match the array card to the row card, column card, and total number card. Each set will have four cards. Then, students will record their answers.	
Exit Slip Students will complete an exit slip independently. Students will trade papers with a nearby classmate and grade their paper with a marker/pen while teacher reviews answers as a whole group.	

Whole group activity: This activity will typically include an anchor chart mini poster, plus some sort of teacher modeling activity.





Partner practice: This will be a hands-on partner activity following the whole-group.

M.A.T.H. groups: (Explained in depth on next page) There are four groups/centers.

Exit slip: There are 3 exit slips to a page to cut out and administer for student learning.

M.A.T.H. Groups

Each day comes with four group activity suggestions and materials for 'M.A.T.H.' groups. This is your small group time, splitting the class up into four groups to rotate around the room, participating in different activities for 10-20 minutes a piece.

M	Math Writing	2 options... worksheet or cut/glue notebook strips	
A	Apply New Skills	Worksheet or interactive notebook activities to apply the skill learned in whole group	
T	Teacher Time	Differentiated time for 3 levels (remediation, on-level, enrichment)	
H	Hands-On Math	Engaging center to follow up on the whole group/partner practice	

Day 1 Activities

Here's a look at day 1's whole group, partner practice, MATH group activities, and exit slip.

2nd Grade Math: 2.OA.4 Lesson 1

Use addition to find the total number of objects arranged in an array. Count by ones to count the number of objects in an array.

Use addition to find the total number of objects in a rectangular array with up to 5 rows and up to 5 columns to express the total as a sum of equal addends.

Arrays

An array is a set of objects organized in equal rows and columns.

What is a row?
A row goes across the array.

What is a column?
A column goes down the array.

Making Arrays

Draw the array using the number of rows and columns.

Rows	Columns
2 rows	1 column
3 rows	1 column
4 rows	1 column
5 rows	1 column
1 row	2 columns
1 row	3 columns
1 row	4 columns
1 row	5 columns
2 rows	2 columns
2 rows	3 columns
2 rows	4 columns
2 rows	5 columns
3 rows	2 columns
3 rows	3 columns
3 rows	4 columns
3 rows	5 columns
4 rows	2 columns
4 rows	3 columns
4 rows	4 columns
4 rows	5 columns
5 rows	2 columns
5 rows	3 columns
5 rows	4 columns
5 rows	5 columns

Draw It Out

Draw the array using the number of rows and columns.

Counting Arrays

Look at the array and count the number of items within it.

Rows	Columns	Total number of objects
1 row	1 column	1 object
1 row	2 columns	2 objects
1 row	3 columns	3 objects
1 row	4 columns	4 objects
1 row	5 columns	5 objects
2 rows	1 column	2 objects
2 rows	2 columns	4 objects
2 rows	3 columns	6 objects
2 rows	4 columns	8 objects
2 rows	5 columns	10 objects
3 rows	1 column	3 objects
3 rows	2 columns	6 objects
3 rows	3 columns	9 objects
3 rows	4 columns	12 objects
3 rows	5 columns	15 objects
4 rows	1 column	4 objects
4 rows	2 columns	8 objects
4 rows	3 columns	12 objects
4 rows	4 columns	16 objects
4 rows	5 columns	20 objects
5 rows	1 column	5 objects
5 rows	2 columns	10 objects
5 rows	3 columns	15 objects
5 rows	4 columns	20 objects
5 rows	5 columns	25 objects

Draw It Out

Draw the array using the number of rows and columns.

2.OA.4 Exit Slip #1

Count the objects and write the numbers.

Rows	Columns	Total number of objects
1 row	1 column	1 object
1 row	2 columns	2 objects
1 row	3 columns	3 objects
1 row	4 columns	4 objects
1 row	5 columns	5 objects
2 rows	1 column	2 objects
2 rows	2 columns	4 objects
2 rows	3 columns	6 objects
2 rows	4 columns	8 objects
2 rows	5 columns	10 objects
3 rows	1 column	3 objects
3 rows	2 columns	6 objects
3 rows	3 columns	9 objects
3 rows	4 columns	12 objects
3 rows	5 columns	15 objects
4 rows	1 column	4 objects
4 rows	2 columns	8 objects
4 rows	3 columns	12 objects
4 rows	4 columns	16 objects
4 rows	5 columns	20 objects
5 rows	1 column	5 objects
5 rows	2 columns	10 objects
5 rows	3 columns	15 objects
5 rows	4 columns	20 objects
5 rows	5 columns	25 objects

2.OA.4 Exit Slip #1

Count the objects and write the numbers.

Rows	Columns	Total number of objects
1 row	1 column	1 object
1 row	2 columns	2 objects
1 row	3 columns	3 objects
1 row	4 columns	4 objects
1 row	5 columns	5 objects
2 rows	1 column	2 objects
2 rows	2 columns	4 objects
2 rows	3 columns	6 objects
2 rows	4 columns	8 objects
2 rows	5 columns	10 objects
3 rows	1 column	3 objects
3 rows	2 columns	6 objects
3 rows	3 columns	9 objects
3 rows	4 columns	12 objects
3 rows	5 columns	15 objects
4 rows	1 column	4 objects
4 rows	2 columns	8 objects
4 rows	3 columns	12 objects
4 rows	4 columns	16 objects
4 rows	5 columns	20 objects
5 rows	1 column	5 objects
5 rows	2 columns	10 objects
5 rows	3 columns	15 objects
5 rows	4 columns	20 objects
5 rows	5 columns	25 objects

2.OA.4 Exit Slip #1

Count the objects and write the numbers.

Rows	Columns	Total number of objects
1 row	1 column	1 object
1 row	2 columns	2 objects
1 row	3 columns	3 objects
1 row	4 columns	4 objects
1 row	5 columns	5 objects
2 rows	1 column	2 objects
2 rows	2 columns	4 objects
2 rows	3 columns	6 objects
2 rows	4 columns	8 objects
2 rows	5 columns	10 objects
3 rows	1 column	3 objects
3 rows	2 columns	6 objects
3 rows	3 columns	9 objects
3 rows	4 columns	12 objects
3 rows	5 columns	15 objects
4 rows	1 column	4 objects
4 rows	2 columns	8 objects
4 rows	3 columns	12 objects
4 rows	4 columns	16 objects
4 rows	5 columns	20 objects
5 rows	1 column	5 objects
5 rows	2 columns	10 objects
5 rows	3 columns	15 objects
5 rows	4 columns	20 objects
5 rows	5 columns	25 objects

Day 2 Activities

Here's a look at day 2's whole group, partner practice, MATH group activities, and exit slip.

2nd Grade Math: 2.OA.4 Lesson 2

Use addition to find the number of objects arranged in an array.

Use addition to find the total number of objects arranged in a rectangular array with up to 5 rows and up to 5 columns, or an equation to represent the total as a sum of equal addends.

Arrays & Addition

You can write repeated addition sentences to show arrays.

$2 \cdot 2 \cdot 2 \cdot 2 = 8$
 $4 \cdot 4 = 8$

$2 \cdot 2 \cdot 2 = 6$

While Kayleigh was waiting at basketball practice, she made an array of basketballs. She made 4 rows and 5 columns.

a. Draw the array she made.
b. Explain the array and math problem.

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a. Draw the array she made.
b. Explain the array and math problem.

Drawing Arrays

Write the math problem. Represent that math problem with an array and an equation.

$4 \cdot 5 = 20$ $3 \cdot 3 = 9$

$2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 = 32$ $5 \cdot 5 = 25$

Counting and Writing

Count the array. Write the addition problem.

$2 \cdot 2 \cdot 2$

$3 \cdot 3 \cdot 3 \cdot 3 \cdot 3$

$2 \cdot 2 \cdot 2 \cdot 2$

$5 \cdot 5$

2.OA.4

I can use addition to find the number of objects in an array.

An array is a set of objects made into even rows and columns.

There are two rows and three columns. Columns go up and down. Rows go across.

You can use addition to represent an array:
 $2 \cdot 2 = 4$ or $2 + 2 = 4$

$3 \cdot 3 = 9$

Arrays

Lift the flaps and write the addition problem.

Day 2 Thank-You-Note

2.OA.4 Exit Slip #2

Write an addition problem to represent the array.

2.OA.4 Exit Slip #2

Write an addition problem to represent the array.

2.OA.4 Exit Slip #2

Write an addition problem to represent the array.

Day 3 Activities

Here's a look at day 3's whole group, partner practice, MATH group activities, and exit slip.

Arrays
An array is a set of objects organized in equal rows and columns.

Arrays & Addition
You can write repeated addition sentences to show an array.

What is a row?
A row goes across. In the array above, there are 2 rows.

Draw It Out
Ms. Tamara said you can represent the number 12 with many types of arrays.
a. Draw two different ways to show 12.
b. Explain the array and math problem.

2 rows 2 columns
3 rows 3 columns
4 rows 4 columns

2 rows 3 columns
5 rows 4 columns
4 rows 4 columns

4 rows 2 columns
5 rows 5 columns
4 rows 3 columns
6 rows 3 columns

2 rows 2 columns
5 rows 5 columns
4 rows 4 columns
3 rows 3 columns

7 rows 7 columns
8 rows 8 columns
9 rows 9 columns
10 rows 10 columns

three rows of four
two rows of six
four rows of four
five rows of two

one row of seven
two rows of four
three rows of five
five rows of three

five rows of four
three rows of two
one row of three
two rows of five

2.OA.4 Exit Slip #3
Draw the array and write the addition problem.

2.OA.4 Exit Slip #3
Draw the array and write the addition problem.

2.OA.4 Exit Slip #3
Draw the array and write the addition problem.

2.OA.4 Exit Slip #3
Draw the array and write the addition problem.

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Assessments


Each unit comes with a pre-assessment to give to students before you teach the standard. This will come before any introduction to the standard. There is also an assessment to give after your unit is complete.

The image shows two sample assessment worksheets for the standard 2.OA.4. The first worksheet is titled "2.OA.4 Pre-Assessment" and the second is titled "2.OA.4 Assessment". Both worksheets include sections for counting rows, columns, and objects in an array, drawing arrays, and writing addition statements.

2.OA.4 Pre-Assessment

Name: _____ Date: _____


Write how many rows, columns, and objects are in the array.


 _____ rows
_____ columns
_____ total number of objects

Draw the array.

2 rows
4 columns

Write an addition statement for each array.

 _____

 _____

Draw the array and write an addition statement.


2 rows
4 columns

4 rows
5 columns

2.OA.4 Assessment

Name: _____ Date: _____


Write how many rows, columns, and objects are in the array.


 _____ rows
_____ columns
_____ total number of objects

Draw the array.

3 rows
3 columns

Write an addition statement for each array.

 _____

 _____

Draw the array and write an addition statement.

3 rows
4 columns

5 rows
2 columns