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EDUCATION

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# Mississippi Mathematics Manipulatives Manual

## Featured Activity



## “Arrays for Repeated Addition”

### 2.OA.4

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As we continue our efforts to develop high-quality instructional materials (HQIM) and resources, the Mississippi Department of Education (MDE), through the Academic Education Office, would like to showcase instructional practices and activities that foster conceptual understanding through the use of manipulatives in the mathematics classroom.

The **Mississippi Mathematics Manipulatives Manual** features activities meant to serve as short, hands-on procedures that may be implemented before, during, or after a lesson to support the teaching and learning process of the Mississippi College- and Career-Readiness Standards (U CCRS) for Mathematics. Alignment with the MCCRS Scaffolding Document has been included for support. Teachers may contact staff at the MDE if they would like to borrow manipulatives for classroom use.

Teachers may modify these activities to meet the needs of the students they serve and their instructional delivery model (virtual, in-person, or hybrid).

Special Thanks:  
**Dr. Alice Steimle,**  
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# Arrays for Repeated Addition

## MANIPULATIVE(S):



- Counters
- Dry Erase Boards and Dry Erase Markers



## GRADE LEVEL OR COURSE

### TITLE:

CCRS Mathematics Grade 2

## DOMAIN and CLUSTER HEADING:

Operations and Algebraic Thinking (OA):  
Work with equal groups of objects to gain foundations for multiplication.

## STANDARD(S) :

**2.OA.4:** 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.

## PREREQUISITE SKILLS :

- Distinguish between rows and columns. This foundational knowledge is crucial for a proper understanding of algebraic concepts addressed in later grades. The proper notation is Number of Groups x Number in Each Group (For example: 3 groups of 4 would be three rows and four columns).
- Understand the terms "row," "group," and "number sentence" or "equation."

## ACTIVITY:

1. Before the activity, create cards with grouping statements such as three rows of 4, two rows of 5, three rows of 1, four rows of 2, etc. ( $3 \times 4$ ,  $2 \times 5$ ,  $3 \times 1$ ,  $4 \times 2$ , etc.). On the back of each card, write the corresponding repeated addition expressions such as  $4+4+4$ ,  $5+5$ ,  $1+1+1$ ,  $2+2+2+2$ , etc.
2. Provide each student or pair of students with counters, a dry erase board, and a dry erase marker. If boards and markers are not available, pencil and paper will suffice.



