# Nov. Gr.3 Unit 4: Understanding Multiplication

Content Area:     **Math**
Course(s):
Time Period:      **November**
Length:           **4-5 Weeks**
Status:           **Obsolete**

## Unit Overview

Students will understand how to interpret the product of whole numbers and use arrays to represent multiplication.

## Enduring Understandings

We can multiply by using a set of equal groups or by using repeated addition.

Arrays can model multiplication.

We can use the communative property of multiplication to solve problems, and solve word problems by writing multiplication number sentences.

## Essential Questions

How do we represent multiplication using sets of equal things?

How do we use arrays to represent multiplication

How do we solve problems using multiplication?

## Instructional Strategies & Learning Activities

- **Pacing Guide**
  **Suggested Pacing**

| | |
|---|---|
| Instruction | 7 days |
| Review/Assessment | 2 days |
| Total* | **9 days** |

- *Includes additional time for remediation and differentiation.
- 

| Lesson | Objective | Material & Manipulatives | Vocabulary | Standard |
|--------|-----------|--------------------------|------------|----------|

| Lesson | Objective | Materials | Vocabulary | Standards |
|---|---|---|---|---|
| Lesson 1 *pp. 193-198* **Hands On: Model Multiplication** | Use models to explore the meaning of multiplication. | • connecting cubes • counters • 2 paper plates | **equal groups multiplication multiplication sentence multiply** | 3.OA.1 3.OA.3 **Major Cluster** **MP 1, 2, 3, 4, 5** |
| Lesson 2 *pp. 199-204* **Multiplication as Repeated Addition** | Relate multiplication and addition. | • cups (or muffin liners) • counters | **factors multiply product** | 3.OA.1 3.OA.3 3.OA.8 **Major Cluster** **MP 1, 2, 3, 4, 7** |
| Lesson 3 *pp. 205-210* **Hands On: Multiply with Arrays** | Use arrays to explore and model multiplication. | • color tiles • grid paper (optional) | **array Commutative Property of Multiplication** | 3.OA.1 3.OA.3 3.OA.5 **Major Cluster** **MP 1, 2, 3, 4, 7** |
| Lesson 4 *pp. 211-216* **Arrays and Multiplication** | Use arrays to multiply. | • grid paper • 24 counters | **array Commutative Property of Multiplication** | 3.OA.1 3.OA.3 3.OA.5 3.OA.8 **Major Cluster** **MP 1, 2, 3, 4, 8** |
| **Check My Progress** | | | | |
| Lesson 5 *pp. 219-224* **Problem-Solving Investigation: Make a Table** | Use the make a table strategy to solve problems. | • paper • markers | | 3.OA.1 3.OA.3 **Major Cluster** **MP 1, 2, 4, 5, 6, 7** |
| Lesson 6 *pp. 225-230* **Use Multiplication to Find Combinations** | Use multiplication to find the total number of combinations that can be made when given two groups of objects. | • 2 color counters • red and blue paper • 3 colors of connecting cubes • paper • colored pencils | **combination tree diagram** | 3.OA.1 3.OA.3 3.OA.8 **Major Cluster** **MP 2, 4, 5,** |

**My Chapter Review**

## Integration of Career Readiness, Life Literacies and Key Skills

| | |
|---|---|
| WRK.9.2.5.CAP | Career Awareness and Planning |
| WRK.9.2.5.CAP.1 | Evaluate personal likes and dislikes and identify careers that might be suited to personal likes. |
| WRK.9.2.5.CAP.2 | Identify how you might like to earn an income. |
| WRK.9.2.5.CAP.4 | Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements. |
| TECH.9.4.8.CT | Critical Thinking and Problem-solving |
| TECH.9.4.8.IML.4 | Ask insightful questions to organize different types of data and create meaningful visualizations. |
| | Digital tools make it possible to analyze and interpret data, including text, images, and sound. These tools allow for broad concepts and data to be more effectively communicated. |

## Technology and Design Integration

Students will interact with Smartboard, Chromebooks and document camera.

| | |
|---|---|
| CS.3-5.8.1.5.DA.1 | Collect, organize, and display data in order to highlight relationships or support a claim. |
| CS.3-5.DA | Data & Analysis |
| | Data can be organized, displayed, and presented to highlight relationships. |

## Interdisciplinary Connections

Math leveled readers, "Making a Budget"

| | |
|---|---|
| LA.RI.3.1 | Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. |
| LA.RI.3.4 | Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area. |
| LA.RI.3.5 | Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently. |
| LA.RI.3.7 | Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). |
| LA.RI.3.10 | By the end of the year, read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed. |
| PFL.9.1.4.D.1 | Determine various ways to save. |

| PFL.9.1.4.D.2 | Explain what it means to "invest." |
|---|---|
| PFL.9.1.4.D.3 | Distinguish between saving and investing. |

## Differentiation

Each My Math unit throughout the series offers "approaching level", "on level" and "Beyond level" differentiated instructional hands-on choices, as well as ELL differentiated support. Please refer to the teacher edition for the activities.

## Modifications & Accommodations

IEP and 504 accommodations will be followed.

## Benchmark Assessments

Aimsweb Assessment, Chapter Pretests, Dreambox

## Formative Assessments

Teacher observation

Student conferences

Discussion

Activities

games

homework

## Summative Assessments

My Math chapter assessments

## Instructional Materials

See materials listed above

## Standards

| | |
|---|---|
| MA.3.OA.A.1 | Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. |
| MA.3.OA.A.3 | Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. |
| MA.3.OA.B.5 | Apply properties of operations as strategies to multiply and divide. |
| MA.3.OA.D.8 | Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. |