

# Mar. Gr.3 Unit 9: Properties and Equations

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

**Unit Overview**

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Students will understand how to use models to decompose factors and find products, use the distributive property to multiply, use the associative property to multiply, evaluate an expression and write an equation.

**Enduring Understandings**

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We can use the distributive and associative properties to multiply numbers.

We can evaluate an expression using variables.

We can write an equation to represent a real world problem.

**Essential Questions**

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How are properties and equations used to group numbers?

**Instructional Strategies & Learning Activities**

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

Instruction	11 days
Review/Assessment	2 days
Total*	<b>13 days</b>

- \*Includes additional time for remediation and differentiation.
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Lesson	Objective	Material & Manipulatives	Vocabulary	Standard
Lesson 1 pp. 429-434 <b>Multiply by 6</b>	Use different strategies, including doubling a known fact, to multiply by 6.	<ul style="list-style-type: none"><li>• counters</li><li>• crayons, markers, or colored pencils</li></ul>	<i>All of the vocabulary in this chapter are review words.</i>	3.OA.1, 3.OA.3, 3.OA.4, 3.OA.5, 3.OA.7, 3.OA.9

<p>Lesson 2 pp. 435-440</p> <p><b>Multiply by 7</b></p>	<p>Use different strategies, such as properties, arrays, and decomposing factors, to multiply by 7.</p>	<ul style="list-style-type: none"> <li>• grid paper</li> <li>• crayons, markers, or colored pencils</li> </ul>	<p><b>Major Cluster</b></p> <p><b>MP 1, 2, 3, 6, 8</b> 3.OA.1, 3.OA.3, 3.OA.4, 3.OA.5, 3.OA.7, 3.OA.9</p>
<p>Lesson 3 pp. 441-446</p> <p><b>Divide by 6 and 7</b></p>	<p>Use different strategies, including arrays and repeated subtraction, to divide by 6 and 7.</p>	<ul style="list-style-type: none"> <li>• counters</li> </ul>	<p><b>Major Cluster</b></p> <p><b>MP 3, 4, 6, 8</b> 3.OA.2, 3.OA.3, 3.OA.4, 3.OA.6, 3.OA.7</p>
<p><b>Check My Progress</b></p> <p>Lesson 4 pp. 449-454</p> <p><b>Multiply by 8</b></p>	<p>Use different strategies, such as arrays, drawings, and known facts, to multiply by 8.</p>	<ul style="list-style-type: none"> <li>• counters</li> </ul>	<p><b>Major Cluster</b></p> <p><b>MP 2, 3, 4, 5, 6</b> 3.OA.1, 3.OA.3, 3.OA.4, 3.OA.5, 3.OA.7, 3.OA.9</p>
<p>Lesson 5 pp. 455-460</p> <p><b>Multiply by 9</b></p>	<p>Use different strategies, such as properties, known facts, or patterns, to multiply by 9.</p>	<ul style="list-style-type: none"> <li>• chart paper</li> </ul>	<p><b>Major Cluster</b></p> <p><b>MP 1, 2, 3, 4, 6</b> 3.OA.1, 3.OA.3, 3.OA.4, 3.OA.5, 3.OA.7, 3.OA.9</p>
<p>Lesson 6 pp. 461-466</p> <p><b>Divide by 8 and 9</b></p>	<p>Use different strategies, such as equal groups, repeated subtraction, and related multiplication facts, to divide by 8 and 9.</p>	<ul style="list-style-type: none"> <li>• counters</li> </ul>	<p><b>Major Cluster</b></p> <p><b>MP 1, 3, 4, 7</b> 3.OA.2, 3.OA.3, 3.OA.4, 3.OA.6</p> <p><b>Major Cluster</b></p> <p><b>MP 1, 2, 4, 5, 6</b></p>
<p><b>Check My Progress</b></p> <p>Lesson 7 pp. 469-474</p> <p><b>Problem Solving Investigation: Make an Organized List</b></p>	<p>Make an organized list to solve problems.</p>		<p>3.OA.3</p> <p><b>Major Cluster</b></p> <p><b>MP 1, 3, 4, 5, 7, 8</b> 3.OA.1</p>
<p>Lesson 8 pp. 475-480</p> <p><b>Multiply by 11 and 12</b></p>	<p>Use different strategies, such as patterns, models, and arrays, to multiply by 11 and 12.</p>	<ul style="list-style-type: none"> <li>• grid paper</li> <li>• crayons, markers, or colored pencils</li> </ul>	<p><b>Major Cluster</b></p> <p><b>MP 1, 2, 3, 5, 7</b> 3.OA.2, 3.OA.4, 3.OA.6</p>
<p>Lesson 9 pp. 481-486</p> <p><b>Divide by 11 and 12</b></p>	<p>Use different strategies, such as equal groups, repeated subtraction, and related facts, to divide by 11 and 12.</p>	<ul style="list-style-type: none"> <li>• counters</li> <li>• egg cartons</li> </ul>	

## Fluency Practice My Review and Reflect

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

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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.3	Identify qualifications needed to pursue traditional and non-traditional careers and occupations.
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.DC.5	<p>Manage digital identity and practice positive online behavior to avoid inappropriate forms of self-disclosure.</p> <p>An individual's passions, aptitude and skills can affect his/her employment and earning potential.</p> <p>An essential aspect of problem solving is being able to self-reflect on why possible solutions for solving problems were or were not successful.</p> <p>Multiple solutions often exist to solve a problem.</p>

### Technology and Design Integration

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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.3-5.8.1.5.DA.3	Organize and present collected data visually to communicate insights gained from different views of the data.
CS.3-5.DA	<p>Data &amp; Analysis</p> <p>Data can be organized, displayed, and presented to highlight relationships.</p> <p>Individuals can select, organize, and transform data into different visual representations and communicate insights gained from the data.</p>

### Interdisciplinary Connections

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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.
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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.3.7	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.

## **Differentiation**

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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**

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IEP and 504 accommodations will be followed.

## **Benchmark Assessments**

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Aimsweb Assessment, Chapter Pretests, Dreambox

## **Formative Assessments**

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Teacher observation

Student conferences

Discussion

Activities

games

homework

## Summative Assessments

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My Math chapter assessments

## Instructional Materials

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See materials listed above

## Standards

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MA.3.OA.A.1	Interpret products of whole numbers, e.g., interpret $5 \times 7$ as the total number of objects in 5 groups of 7 objects each.
MA.3.OA.A.2	Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 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.A.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers.
MA.3.OA.B.5	Apply properties of operations as strategies to multiply and divide.
MA.3.OA.B.6	Understand division as an unknown-factor problem.
MA.3.OA.C.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$ , one knows $40 \div 5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
MA.3.OA.D.9	Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.