

Multiplication

By J.J. Munoz



*Music,
Vocabulary,
Time Tests, and
Foldable!!!*



I use this the first 5-7 minutes of every math lesson. The song then a time test everyday!

When introducing a song, I give every student a lyric sheet. I model one line at a time and they repeat each line until I finish the song. I do this for the first two days. These students take the lyrics home and read them every night as part of their homework. By the end of the week most students know the song by heart!

My students LOVE these songs and have mastered their times tables through nines!

Background by


<http://www.teacherspayteachers.com/Store/Buford-Girl>

Clip art by

<http://melonheadzillustrating.blogspot.com/p/terms-of-use.html>

Modeling Multiplication 2's

Learning Goal: I will be able to model multiplication using repeated addition, array, and groups.

<p>Repeated Addition: 2×3 _____</p> <p>$2 + 2 + 2 = 6$ _____</p> <p>Multiplication Sentence: $2 \times 3 = 6$</p>	<p>Array: <u>2 rows of 3</u></p> <p>Example</p> 
<p>Repeated Addition: 2×8 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 2×4 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 2×6 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 2×2 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 2×5 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 2×9 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 2×7 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 2×10 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>

Modeling Multiplication 4's

Learning Goal: I will be able to model multiplication using repeated addition, array, and groups.

Example	
<p style="text-align: center;">Repeated Addition: 4×2</p> <p><u>4 + 4 = 8</u></p> <p>Multiplication Sentence: <u>4</u> x <u>2</u> = <u>8</u></p>	<p>Array: <u>4 rows of 2</u></p>
<p style="text-align: center;">Repeated Addition: 4×8</p> <p>_____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p style="text-align: center;">Repeated Addition: 4×4</p> <p>_____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p style="text-align: center;">Repeated Addition: 4×6</p> <p>_____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p style="text-align: center;">Repeated Addition: 4×3</p> <p>_____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p style="text-align: center;">Repeated Addition: 4×5</p> <p>_____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p style="text-align: center;">Repeated Addition: 4×9</p> <p>_____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p style="text-align: center;">Repeated Addition: 4×7</p> <p>_____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p style="text-align: center;">Repeated Addition: 4×10</p> <p>_____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>

Modeling Multiplication 5's

Learning Goal: I will be able to model multiplication using repeated addition, array, and groups.

Example	
Repeated Addition: 5×2 <u>5 + 5 = 10</u> Multiplication Sentence: <u>5</u> x <u>2</u> = <u>10</u>	Array: <u>5</u> rows of <u>2</u>
Repeated Addition: 5×8 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 5×4 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 5×6 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 5×3 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 5×5 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 5×9 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 5×7 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 5×10 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____

Modeling Multiplication 6's

Learning Goal: I will be able to model multiplication using repeated addition, array, and groups.

Example	
<p>Repeated Addition: 6×3 <u> </u> $6 + 6 + 6 = 18$</p> <p>Multiplication Sentence: <u> 6 </u> x <u> 3 </u> = <u> 18 </u></p>	<p>Array: <u> 6 </u> rows of <u> 3 </u></p>
<p>Repeated Addition: 6×8 <u> </u></p> <p>Multiplication Sentence: <u> </u> x <u> </u> = <u> </u></p>	<p>Array: <u> </u> rows of <u> </u></p>
<p>Repeated Addition: 6×4 <u> </u></p> <p>Multiplication Sentence: <u> </u> x <u> </u> = <u> </u></p>	<p>Array: <u> </u> rows of <u> </u></p>
<p>Repeated Addition: 6×6 <u> </u></p> <p>Multiplication Sentence: <u> </u> x <u> </u> = <u> </u></p>	<p>Array: <u> </u> rows of <u> </u></p>
<p>Repeated Addition: 6×2 <u> </u></p> <p>Multiplication Sentence: <u> </u> x <u> </u> = <u> </u></p>	<p>Array: <u> </u> rows of <u> </u></p>
<p>Repeated Addition: 6×5 <u> </u></p> <p>Multiplication Sentence: <u> </u> x <u> </u> = <u> </u></p>	<p>Array: <u> </u> rows of <u> </u></p>
<p>Repeated Addition: 6×9 <u> </u></p> <p>Multiplication Sentence: <u> </u> x <u> </u> = <u> </u></p>	<p>Array: <u> </u> rows of <u> </u></p>
<p>Repeated Addition: 6×7 <u> </u></p> <p>Multiplication Sentence: <u> </u> x <u> </u> = <u> </u></p>	<p>Array: <u> </u> rows of <u> </u></p>
<p>Repeated Addition: 6×10 <u> </u></p> <p>Multiplication Sentence: <u> </u> x <u> </u> = <u> </u></p>	<p>Array: <u> </u> rows of <u> </u></p>

Modeling Multiplication 7's

Learning Goal: I will be able to model multiplication using repeated addition, array, and groups.

Example	
<p>Repeated Addition: 7×3 <u>7 + 7 + 7 = 21</u></p> <p>Multiplication Sentence: <u>7 x 3 = 21</u></p>	<p>Array: <u>7 rows of 3</u></p>
<p>Repeated Addition: 7×8 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 7×4 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 7×6 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 7×2 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 7×5 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 7×9 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 7×7 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 7×10 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>

Modeling Multiplication 8's

Learning Goal: I will be able to model multiplication using repeated addition, array, and groups.

Example	
<p>Repeated Addition: 8×3 <u>8 + 8 + 8 = 24</u></p> <p>Multiplication Sentence: <u>8</u> x <u>3</u> = <u>24</u></p>	<p>Array: <u>8 rows of 3</u></p>
<p>Repeated Addition: 8×8 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 8×4 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 8×6 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 8×2 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 8×5 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 8×9 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 8×7 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>
<p>Repeated Addition: 8×10 _____</p> <p>Multiplication Sentence: _____ x _____ = _____</p>	<p>Array: _____ rows of _____</p>

Modeling Multiplication 9's

Learning Goal: I will be able to model multiplication using repeated addition, array, and groups.

Example	
Repeated Addition: 9×3 <u>9 + 9 + 9 = 27</u> Multiplication Sentence: <u>9</u> x <u>3</u> = <u>27</u>	Array: <u>9</u> rows of <u>3</u>
Repeated Addition: 9×8 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 9×4 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 9×6 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 9×2 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 9×5 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 9×9 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 9×7 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____
Repeated Addition: 9×10 _____ Multiplication Sentence: ____ x ____ = ____	Array: _____ rows of _____

Multiplication

An operation that gives the total number when you join equal groups.

$$2 \times 3 = 6$$

$$2 \cdot 3 = 6$$

$$2 \text{ by } 3 = 6$$

$$2(3) = 6$$

$$(2)(3) = 6$$

$$(2)3 = 6$$

Factors

Numbers that are multiplied to give a product.

$$2 \times 3 = 6$$

↑ ↑
factors

Product

The answer to a
multiplication
problem.

$$2 \times 3 = 6$$

product



Identity (one) Property of Multiplication

The product of any
number and 1 is that
number.

$$2 \times 1 = 2 \quad 9 \times 1 = 9$$

$$56 \times 1 = 56 \quad 4 \times 1 = 4$$

Commutative (Order) Property of Multiplication

Numbers can be multiplied in any order and the product will be the same.

$$5 \times 3 = 18$$

$$3 \times 5 = 18$$

$$3 \quad 5$$

$$\begin{array}{r} \times 5 \\ \hline \end{array} \quad \begin{array}{r} \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \hline \end{array} \quad \begin{array}{r} 18 \\ \hline \end{array}$$

Zero Property of Multiplication

The product of any
number and zero is
zero.

$$5 \times 0 = 0$$

$$\begin{array}{r} 15 \\ \times 0 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 0 \\ \times 9 \\ \hline 0 \end{array}$$

$$0 \times 3 = 0$$

Multiples

The products of a number and other whole numbers.

5: 5, 10, 15, 20, 25, 30

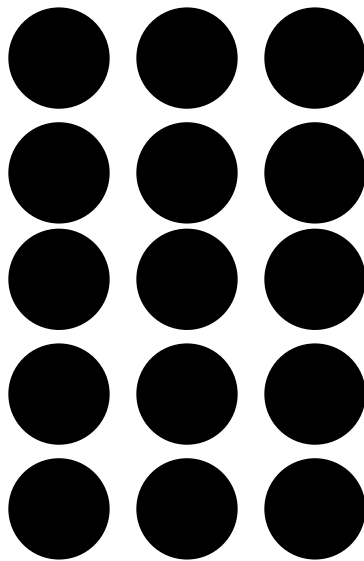
8: 8, 16, 24, 32, 40, 48

3: 3, 6, 9, 12, 15, 18, 21

Array

A way of displaying
objects in equal rows.

$$5 \times 3 = 15$$



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Multiplication Key

Words for problem solving

each

double

product

times

by

of

twice

triple

multiplied

per

<p>Multiplication - An operation that gives the total number when you join equal groups.</p>	<p>Different multiplication symbols: $\times, *, (), \cdot$</p>	<p>Example:</p>	<p>Identity (one) Property of Multiplication - The product of any number and 1 is that number.</p>
<p>Factors - Numbers that are multiplied to give a product.</p>	<p>Circle the factors.</p> <p>$2 \times 3 = 6$ $5 \times 8 = 40$ $3 \times 3 = 9$</p>	<p>Example:</p>	<p>Commutative (Order) Property of Multiplication- Numbers can be multiplied in any order and the product will be the same.</p>
<p>Product - The answer to a multiplication problem.</p>	<p>The product of $2 \times 5 = \underline{\quad}$</p>	<p>Example:</p>	<p>Zero Property of Multiplication- The product of any number and zero is zero.</p>
<p>Multiples - The products of a number and other whole numbers.</p>	<p>List multiples of $\underline{\quad}$</p>	<p>Example:</p>	<p>Array- A way of displaying objects in equal rows</p>