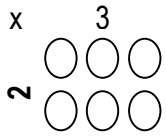
Grade 3 Mathematics Unit Preview
Quarter 2: Multiplication

Objectives: (Your student will be able to)



- **Use models, manipulatives, and arrays to represent multiplication.**
  (For example, the array to the right represents 3 x 2 or 2 x 3)
- **Use models, manipulatives, and arrays to represent multiplication.**
- **Identify the concept of inverse operation for multiplication and division.**
  (For example, 4 x 3 = 12 is the inverse of 12 ÷ 4 = 3)
- **Identify the factor and product in a multiplication sentence.**
  (For example, in 3 x 2 = 6, 3 and 2 are the factors, 6 is the product)
- **Apply the zero, identity, and commutative properties to basic multiplication facts.**
  Zero Property - any number multiplied by zero equals zero, 6 x 0 = 0
  Identity Property - any number multiplied by one is equal to the same number, 6 x 1 = 6
  Commutative Property – numbers can be multiplied in any order (For example, 4 x 3 = 3 x 4)
- **Use patterns to multiply a one-digit number by multiples of ten using mental computation**.
  (For example, 6 x 10 = 60, 6 x 100 = 600, 6 x 1,000 = 6,000)

Vocabulary: (Words your student will need to understand)

• **array**: an arrangement that shows objects in columns and rows	• **factor**: a number that is multiplied by another number to get a product
• **multiple**: a product of two whole numbers	• **product**: the result of multiplication
• **mental computation**: the calculation of something mentally	• **multiplication sentence**: a mathematical sentence that uses the operation of multiplication. For example, 5 X 5 = 25, 35 > (greater than) 5 X 5, 5 X 5 < (less than) 26
• **division**: to make equal groups	

Activities to do with your student (in addition to homework, optional):

- Make arrays out of household items (e.g., pennies, beans, blocks)
- Select multiplication or division facts to illustrate or write a word problem.
- Hunt for multiple sets of objects in the home. Use repeated addition and multiplication to find the totals.
- Sort coins according to type, count the number of coins and then multiply to find the total value of pennies (x 1), nickels (x 5), dimes (x 10) and quarters (x 25).
- Roll 2 number cubes. Find the products of the factors.
- Count quantities of items by 2's, 3's, 5's, and 10's.
- Practice addition and subtraction facts.
- Practice multiplication facts – (x 0, x 1, x 2, x 10).

HOWARD COUNTY
PUBLIC SCHOOL SYSTEM

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