

Dear Parents,

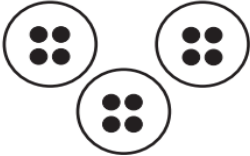

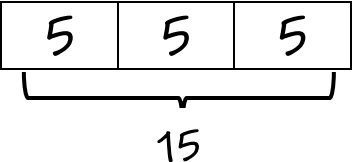
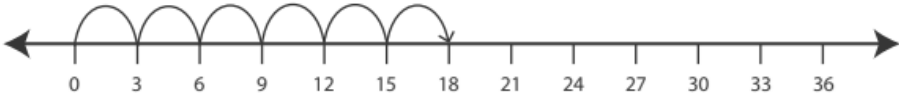
Over the next several weeks, we will be learning about **multiplication** in math! The information below will help you to support your child as they learn these exciting, yet important third grade math skills.

The GOAL:

By the end of the unit, your child should be able to **solve equations** and **build fluency with multiplication**. Children should also be able to **apply multiplication properties** and **solve multiplication word problems**.

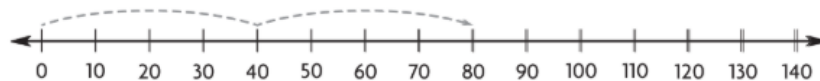
Help your child learn about multiplication strategies:

Students will learn a variety of ways to multiply and your child will be able to pick the strategy that they feel most comfortable with using when solving problems. Below are some examples of the strategies your child will learn to multiply.

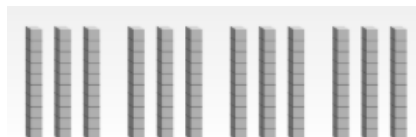
<p>Equal Groups</p> <p>$3 \times 4 = 12$ 3 groups of 4</p> 	<p>Arrays</p> <p>$4 \times 5 = 20$ 4 rows of 5</p> 	<p>Repeated Addition</p> <p>$5 \times 6 = 30$</p> <p>$5 + 5 + 5 + 5 + 5 = 30$</p>
<p>Bar Models</p> <p>$5 \times 3 = 15$</p> 	<p>Number Lines/ Skip Counting</p> <p>$6 \times 3 = 18$ Skip Count by 3: 3, 6, 9, 12, 15, 18</p> 	

Help your child learn about multiplying by multiples of 10:

Number Lines: $2 \times 40 = 80$



Base 10 blocks: $4 \times 30 = 120$



4 groups of 30

Central Dauphin School District
Grade 3 Math: Unit 2 Parent Letter
Multiplication



Help your child learn about multiplication properties:

- **Commutative Property:** the property that states you can multiply factors in any order and get the same product
 $3 \times 7 = 21$ $7 \times 3 = 21$

- **Associative Property:** the property that states when the grouping of factors is changed, the product stays the same
 $(4 \times 3) \times 2 = 24$ $4 \times (3 \times 2) = 24$

- **Distributive Property:** the property that states that multiplying a sum by a number is the same as multiplying each addend by the number and then adding the products.
 $5 \times 8 = 5 \times (4 + 4)$

Grade 3 Math: PA Core Math Standards in Unit 2

- CC.2.2.3.A.1 Represent and solve problems involving multiplication and division.
- CC.2.2.3.A.2 Understand properties of multiplication and the relationship between multiplication and division.
- CC.2.2.3.A.3 Demonstration multiplication and division fluency.
- CC.2.2.3.A.4 Solve problems involving the four operations, and identify and explain patterns in arithmetic.
- CC.2.1.3.B.1 Apply place-value understanding and properties of operations to perform multi-digit arithmetic.

-- KEY MATH VOCABULARY --

Equation: A mathematical sentence or statement relating to equal expressions (this always contains an equal sign).

Factor: A whole number that can divide another whole number with no remainder.

Multiple: A number that is divisible by another number with no remainder (3, 6, 9, 12, etc. are multiples of 3)

Multiply: When you combine equal groups, you can multiply to find how many in all, the inverse of division.

Product: The result of when one number is multiplied by one or more numbers.

-- HOW TO HELP AT HOME --

Help your child build multiplication fact fluency!

- Use fact flashcards
- Play multiplication apps and games
- Listen to songs that practice facts
- Use a deck of cards, dice or dominoes to multiply 2 numbers
- Create arrays using playdoh, candy, Legos, or stickers