

# T/E Intermediate 3-4 Mathematics Newsletter



## October / November 2011



### The Facts about the Facts



Actively engaging in meaningful mathematical experiences involving creating equal groups, equal shares, skip counting, and building arrays, or rectangular arrangements of objects, builds the conceptual foundation for learning multiplication and division facts.

Problem solving in real-life context promotes mathematical thinking and reinforces the relationship between multiplication and division as inverse operations. Some activities that foster multiplication and division concept building are:

- ❖ Cookie arrays – Arrange (12) cookies on a baking sheet in equal rows. Discuss the number of rows, and the number of cookies in each row. Ask your child if they can figure out the total number of cookies without counting each cookie. Look for repeated addition, skip counting, and/or multiplication. Discuss other ways that 12 cookies could be arranged in equal rows on the tray. Extend by using 18 or 24 cookies. This activity develops an understanding of factors of a number.
- ❖ Coin rolls – Ask how many groups of 10 pennies will be needed to make \$1.00? Children should sort pennies into groups of 10 (equal share). Look for skip counting or repeated addition to 100. Children may also begin with 100 and repeatedly subtract to zero. Discuss the multiplication fact  $10 \times 10$ . The same activity can be done with all coins. This activity develops the concept of equal groups and repeated addition or subtraction.
- ❖ Road trips – Note the distance traveled in 5, 10, 15, 20, or 30 minutes. Ask your child to help you figure out how many miles you will travel in one hour. Discuss her strategy for figuring out the distance. This type of activity builds upon repeated addition / multiplication, and introduces ratio and proportion concept.
- ❖ Card Games – Play “War” multiplication style. Each player flips 2 cards and multiplies them. The person with the higher product collects the cards. Aces can be 1 or 11; face cards can be 0 or 12.

Hands on exploration allows children to learn the “how” and “why” behind multiplication and division, and leads to fluent computation.

### Here are some suggested books for multiplication and division:

*The Best of Times*, by Greg Tang

*Amanda Bean’s Amazing Dream*,  
by Marilyn Burns

*The Doorbell Rang*, by Pat Hutchins

### Here are some suggested websites to practice multiplication and division:

[www.multiplication.com](http://www.multiplication.com)

[www.aaamath.com](http://www.aaamath.com)

[www.studyisland.com](http://www.studyisland.com)

[www.coolmath4kids.com](http://www.coolmath4kids.com)

National Council of Teachers of Mathematics Family Resource Page:

[www.nctm.org/resources/families.aspx](http://www.nctm.org/resources/families.aspx)

