Circles and Stars (3rd)

You need:
Two players
One die

Player A rolls the die, then draws that number of fairly large circles.
Player B rolls the die and does the same.
Player A rolls the die and draws that number of stars in each of his circles.
Player B rolls the die and does the same.

Each player writes the number sentence that tells how many stars he or she has (e.g. four circles with 3 stars in each circle would be 4 x 3 = 12 stars). Play six rounds, then determine the total number of stars that each player has.

** Variation: For each round, after Player A draws stars in his circle, determine the probability that Player B will end up with more stars than Player A.

Adapted from *Math by all Means: Multiplication by Marilyn Burns*

How Many Rows? How Many in Each Row? (3rd,4th)

You need:
Two players
One die
Recording sheet for game (has one 10x10 grid for each player)

Player A rolls a die two times. The first roll determines the number of rows and the second roll determines the number of squares in each row. Player A draws a rectangles that corresponds to the rolls in any location on the grid on the recording sheet, then writes the number sentence (e.g. 3x4=12) in the rectangle.

Player B rolls the dies twice. Again, the first roll determines the number of rows and the second roll determines the number of squares in each row. Player B draws the rectangle that corresponds to the rolls in any location on the other grid, then writes the number sentence in the rectangle.

Players take turns. Each rectangle drawn cannot overlap a previous rectangle. Each player continues until he or she is unable to place a rectangle on the grid. At that stage, the player records both the total number of squares covered by rectangles on the grid, as well as the number of uncovered squares.

**Variation: After rolling the die twice to determine a product, the player can make any rectangle that covers that number of squares.

Adapted from *Math by all Means: Multiplication by Marilyn Burns*