MATH GAMES

K-6 Over the Hill Group students into pairs; give each student and Over the Hill worksheet and each pair 3 dice. Students will take turns rolling all 3 dice. They are to add or subtract the amounts shown on the rolled dice and then cross off those sums or differences on their "hill" number line. They must go in numerical order starting at 1 and will cross off as many as possible in that roll. When they cannot create any more numbers from the rolled dice, it is their partner's turn. Each player's turn starts at the end point from the previous turn. The first to reach 18 wins. EXAMPLE: Player A rolls a 3,4,6. She can cross off 1 (because 4-3 = 1), 2 (because 6-4= 2), and 3 (because 6-3 = 3) from her worksheet. She cannot make a sum or difference of 4, so now it is player B's turn to roll. Each player's turn starts at the end point from the previous turn. The first to reach 18 wins.

K-6 Dice Wars Materials**:** 2-4 dice, 10 small counters (Pebbles, pennies, buttons, Goldfish crackers, etc.) Each player starts with 2 dice and 5 counters.The objective of the game is to capture all of the other player's counters.On the count of three, both players roll their dice. Each player adds up the sum of his/her two dice, and whoever has a higher number gets to "steal" a counter from the other player.Continue playing until one player has ALL 10 counters. In our experience, it took 10-15 minutes for each game. If that's too long for your child's attention span, you can set a timer and declare the winner to be the person with the most counters when it goes off.

3-6 The Game of Pig This game for two or more players gives students practice with mental addition and experience with thinking strategically. The object: to be the first to score 100 points or more. How to play: Players take turns rolling two dice and following these rules: 1. On a turn, a player may roll the dice as many times as he or she wants, mentally keeping a running total of the sums that come up. When the player stops rolling, he or she records the total and adds it to the scores from previous rounds. 2. But, if a 1 comes up on one of the dice before the player decides to stop rolling, the player scores 0 for that round and it's the next player's turn. 3. Even worse, if a 1 comes up on both dice, not only does the turn end, but the player's entire accumulated total returns to 0. After students have had the chance to play the game for several days, have a class discussion about the strategies they used. You may want to list their ideas and have them test different strategies against each other to try and determine the best way to play.

3-6 Subtraction Pig Two or more players start out with 100 points each. Players in turn roll two dice and subtract that number from their points. A player on a turn continues rolling the dice and subtracting the resulting number from his remaining points until a 1 appears on any dice rolled. That player's turn ends, and the next player takes a turn. When a player has lost all of his points, he is out of the game. The last player in the game is the winner.