

## Ways to Improve Your Math Computation

**Put together a supply box for practicing your computation. Be sure to include:**

4 dice	set of subtraction flashcards	2 decks of playing cards
set of dominoes	set of addition flashcards	several pencils w/erasers
pad of paper	counters (beads, Cheerios, etc.),	

<http://www.apples4theteacher.com/math/games/100-number-chart-one.html>

You can print out a hundred grid for your supply box or work with it on-line. You can color code the patterns you see. Aplusmath.com has a worksheet generator, online flashcards, and computation games. The 'Math Room' on Nixon's Web Site has many ways to practice math facts on-line at <http://nixon.cr.k12.ia.us>. You can also download and save the Truman Math Fact practice software to your desktop and complete 100 problems each night.

**Target Number-** Select a number and write every possible math fact that will result in the targeted number.

**Level Practice** – Take home a leveled math sheet to practice each night.

**Fact Families** - Write two addition and two subtraction problems for each number family.

**Dice Roll** – Roll two dice and either add them together or subtract the smaller number from the larger number.

**Deck of Cards** – Turn over two cards and add or subtract the numbers.

**Dice & Domino Equations-** Dice Equations: Roll two dice to and make an addition or multiplication problem with the numbers on the dice. Domino Equations: Put several dominoes in a brown lunch sack. Pull a domino out of the bag and make an equation from the numbers on either side of the domino. Write the equations on a piece of paper so you can check them later.

**Math War-** Remove the face cards from a regular deck of playing cards. Shuffle the cards and place them face down between two or more players. Each player chooses two cards and adds (or subtracts) the numbers on the cards. The player with the highest answer takes all of the cards. If the numbers are the same, both players choose two more cards and the player with the highest answer takes all the cards.

**Mathematical "I Spy"** - While driving down the road, have your child find numbers on signs, storefronts and vehicle tags. Make addition, subtraction or multiplication problems with the numbers.

**Equation Concentration-** Create a Math Memory game with twenty 3"x5" cards. Write equations on ten index cards. On the other ten cards, write the corresponding answers to the questions. Shuffle and place the cards face down on the playing surface. The first player chooses two cards. If they match, s/he keeps both cards and chooses again. If they do not match, then s/he puts the cards back and the next player chooses. Play continues until all of the cards are chosen. The player with the most cards wins.

**Activity 1:** One easy and effective way to study the doubles facts is to use a deck of playing cards aces through tens. Shuffle them up and flip one card over, have your child write the answer to the double down on a piece of paper.

**Activity 2:** Have your child roll a die and double the number shown.

**Strategy: Doubles + 1 or Doubles - 1**

**Description:** Once you know your doubles you can solve problems that are close to doubles.

**Example:**  $6 + 7$  can be solved by  $(6 + 6) + 1$  (Doubles + 1) or  
 $6 + 7$  can be solved by  $(7 + 7) - 1$  (Doubles - 1)

**Strategy: Dive-In-Between**

**Description:** If the two numbers you are adding are separated by one missing number, double the missing number.

**Example:**  $4 + 6$  can be solved  $5 + 5$   
 $6 + 8$  can be solved  $7 + 7$

**Strategy: Fast Nines**

**Description:** When adding a number to nine, subtract one from the number and add it to the nine to make ten.

**Activity 1:** Use a deck of cards with nines, tens, jacks, queens, and kings removed. Save a nine to place in front of your child. Deal the cards out one at a time and place them in a pile next to the nine. Have them use 'fast nines' strategy to add the two numbers together.

**Strategy: Use What You Know About Addition to Solve Subtraction Facts**

**Description:** If you know that  $8 + 8$  is 16, then you know that  $16 - 8$  is 8.

**Activity 1: Three-Head Game** Use a deck of cards with jacks, queens, and kings removed. Two players slide a card up and hold it up on their foreheads so the other 2 players can see it. Players should not know what card they have on their own forehead. The third player adds the two cards up and announces the sum. Then the two players with a card on their head need to determine the value of their own card.

**Strategy: Using Ten for Subtraction**

**Description:** Start with the lower number and determine how far away from ten this number is. Then add on how far ten is from the larger number.

**Example:**  $14 - 8$  can be solved by  $8 + 2$  gets us to ten and add on 4 more to get to 14 ( $2 + 4 = 6$ )

**Strategy: Counting Up**

**Description:** Use this strategy when you are subtracting two numbers that are close to each other.  $12 - 9$  can be solved by counting up from 9 to 12: (10, 11, 12 You counted up three numbers, so the answer is three.)

**Strategy: Counting Back**

**Description:** Start with the total and then count back 1, 2 or 3.  $12 - 3 = 11, 10, 9$

**Activity 1:** Use two decks of cards. Put all the aces, 2's and 3's in one pile, with the rest of the deck in the other pile. Flip one card from each pile over. Subtract the lower card from the higher card. Have your child count back out loud.

**Egg Carton Equations** - Recycle a used egg carton and two beans for this basic fact review. Write the numbers 1-12 in the bottom of each egg compartment. Get two beans and place them inside the egg carton. Shake the closed carton and have the child make an addition or multiplication equation from the numbers on which the beans land.

**Beach Ball Math**- With a permanent marker, draw lines on a beach ball. Separate each colored section into two or three more sections. In each section, write a number 0-10. Throw the ball to your child. When h/she catches the ball, have them add the two numbers together that his/her thumbs are touching. (You can also practice subtraction this way.)

**Grocery Math Game**- While shopping in the grocery store, have your child solve math problems by comparing the labels on different products. For example: How much more sodium does this soup have than that soup? How many more fat grams are in these cookies than those cookies? How much more does this brand cost?

**Math Literature** – Don't forget to pick up a math book at the library. Many books have been written about addition and subtraction for children. *Math Start* is one such series.

### **Math Strategies to Support Computation**

#### **Strategy: Counting On**

**Description:** Start with the larger number. Count on 1, 2, or 3.

**Activity 1:** Remove the kings, queens, jacks and tens out of a deck of cards. Split the rest of the deck into 2 piles; put the aces, 2's and 3's into one pile with the rest of the cards into another pile. Flip over one card from the top of each pile. Practice using the counting on strategy each time you turn over two new cards.

**Activity 2:** Spread all cards from zero to ten out on the table face up. One player rolls two dice, adds the 2 numbers, and says the addition problem out loud with the answer. Next turn over any two cards that add up to that answer. If you roll a 3 and a 5, you may turn over any two cards that add up to 8. The object of the game is to turn over as many cards as you can before you become stumped. When you roll a number that cannot be turned over, your turn is done. Let your partner try!

#### **Strategy: Build Ten**

**Description:** Ten is a very important number in math. When students know all the ways to make ten quickly, they are able to use this information to help them with other addition and subtraction facts! (In solving  $8 + 5$ , students that know  $8 + 2 = 10$ , build a ten and add on the 3 left over to make 13)

**Activity 1:** Use a deck of cards with the tens, jacks, queens, and kings removed. Lay 9 cards face up in 3 rows of three in front of your child. Have your child take away pairs of numbers that make ten. It is important that they say the numbers aloud. "2 plus 8 is 10." Fill in the empty spaces with new cards until all the cards are gone. If everything is paired up correctly all the numbers will match up.

#### **Strategy: Doubles**

**Description:** Doubles are important facts to know as they are used in many strategies. A doubles fact is when you add a number to itself.

