

What is a Working Number?

You may hear your child's teacher talking about their working number and wonder what they mean. A working number is a phrase Kathy Richardson uses to talk about the number or group of numbers students are trying to become automatic with.

We have identified stages we expect students to pass through as they become automatic with number combinations (basic addition and subtraction facts) in the early elementary grades. By breaking them up into stages, students can focus on some of the facts until they show mastery. Our goal is for students to have mastered all the facts by the end of second grade or the fall of third grade.

Typical Addition and Subtraction Stages:

- 1) Fluency with Zero, One or Two More or Less
- 2) Doubles and Doubles Plus 1
- 3) Number Combinations to 6
- 4) Make 10
- 5) Up to 10 facts (7, 8 and 9)
- 6) Last Facts (up to 20)

Drill through games and activities:

Playing board games and card games is one very good way to reinforce basic facts. Many games have them roll two dice and add them together to determine how many spaces to move. Card games such as "Blackjack" also involve determining the sum of numbers.

My favorite activity is called: "What's Hidden?"

The student takes the number of objects they are working on, for instance if they are working on number 5, they would take 5 objects. They then put the objects in something they cannot see through like a paper bag or under a bowl. They then grab some of the objects and based on what they see, they figure out what is hidden.

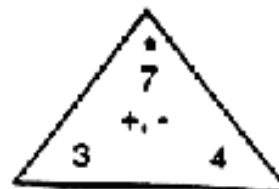
The ten-frame is a very useful tool for this activity as it anchors the facts to ten.

Drill through Flash Cards:

The benefit of Fact Triangles is that they cluster facts into fact families. Reducing the number of facts you need to master. Facts may be mastered through the use of triangle fact cards. A triangle fact is pictured to the left. Fact triangles are a more effective device for memorizing the facts than ordinary flashcards because of their emphasis on fact families. The three numbers involved in an addition fact are placed on the corners of a fact triangle. The sum (answer) is at the top, under the asterisk (*). You cover one of the corners of the triangle. Then your child gives an addition/subtraction fact that has the number you are concealing as its answer. For example, in the fact triangle pictured, your child would say either "3+4=7" or "7-3=4."

A Fact Family

$$\begin{aligned} 3 + 4 &= 7 \\ 4 + 3 &= 7 \\ 7 - 4 &= 3 \\ 7 - 3 &= 4 \end{aligned}$$



You can download a set of fact triangles from an essay that is on the "Frequently Asked Questions" section of the Math Web Site

Solve Problems:

The very act of solving problems often times help students see the need for becoming automatic with their basic facts as well as giving them an opportunity to practice their facts as they do the computation to figure out the answer.

A site I really like is called Thinking Blocks. It is linked to the "Student" page of the Math Web Site. When the link opens, click on "Try It" on the side bar to the left. When the next screen appears, click on "Try It – Addition and Subtraction Word Problems." That will be in a colored oval in the middle of the page. Students can get in the habit of solving one problem a day and I think it will go a long way towards developing their computational fluency.