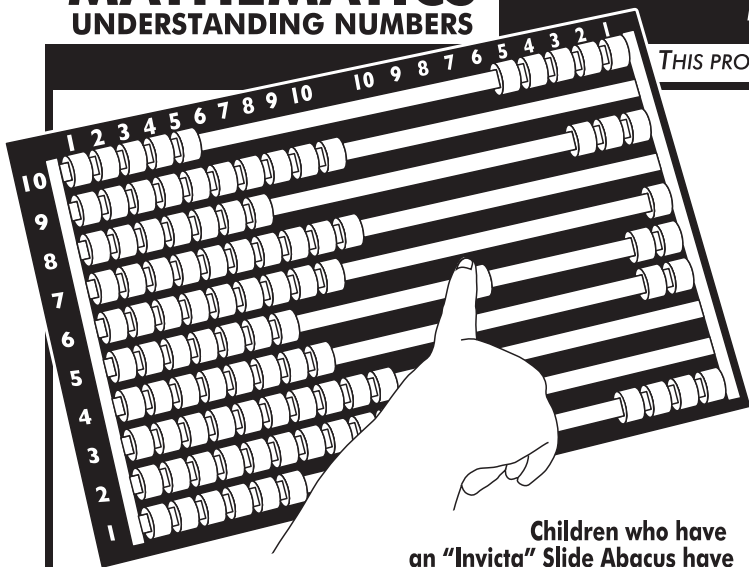


THIS PRODUCT GUIDE MAY BE PHOTOCOPIED FOR CLASS USE ONLY

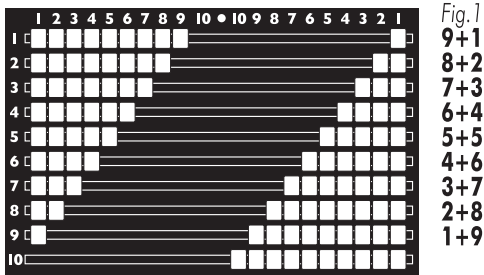


Children who have an "Invicta" Slide Abacus have an open door to the discovery of early mathematical information and this Product Guide will help interested parents lead their children forwards to discover this information. First of all, however, children must be allowed to play and explore on their own. They will want to slide the attractively coloured counters from side to side, making patterns, and enjoy the rattling and swishing noises as the counters run quickly from side to side when the Abacus is tipped on its end. From their play, children will have begun to notice the colours, the raised numbers and, of course, how to use the board. This is when interested adults can step in and help them learn even more.

Counting Aloud

Counting aloud is fun and a very good way of helping children to remember. Move the counters from left to right, counting aloud as each one is moved. Point out the raised numbers on the base board of the Abacus, children will then begin to recognize the way we write numbers and that 2 is more than 1, 5 is more than 4, etc. Move more than one counter and ask your child to use another line. Say, "Move the same number of counters as I have, how many is that?" They will probably want to count them across one by one, until they have transferred the same number. Moving from left to right and using the words "left" and "right" will also help your child to distinguish left from right. Don't be impatient. Mastering 1-10 may take a long time but you can, of course, go on to count from 1-100, using all ten lines of the Abacus.

When you are beginning the counting, don't just use the counters. Look around the room or out of the windows, use pictures and count real things, people, cars, flowers, animals, etc. Ask your child to move the counter from left to right every



time he spots one of the real things. Ask from time to time, "How many cars have you seen?" etc.

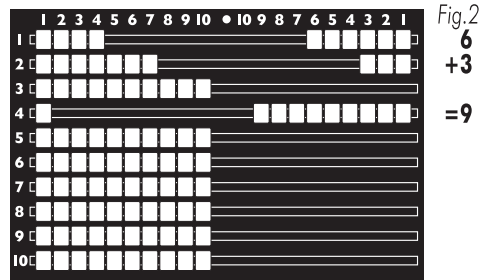
To help children understand addition and a number of other arithmetic operations, the slide Abacus is ideal. Simply make the pattern shown (Fig.1) and you can show the many different ways of making ten.

To show that $9+1$, $8+2$, etc. are all equal, simply push all the counters to the left to make a solid block of tens. Ask your child to make all the combinations for themselves and then to add them together by pushing across and saying, " $9+1$ is another name for 10, $8+2$ is another name for 10," etc. "Another name for" is how we begin to introduce the mathematical term "equals".

Simple Addition and Subtraction

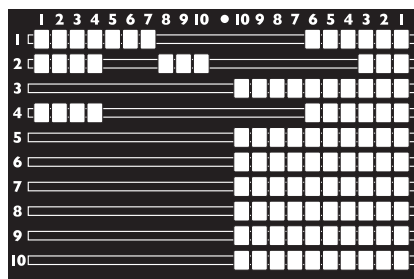
Showing how ten is made has already introduced simple addition, but now you should use the Abacus as a way of recording the addition of real objects. Use the counters to represent such items as: (See Fig.2)

To add, simply push all counters to the right one by one, counting aloud or, read off the answer on the raised numbers above. (See Fig.2)



Subtraction simply means taking a small group from a larger one (See Fig.3). For 7-3, put 7 in the top line to act as a reminder of the larger number. Do the same again on line 2 but from this 7 move 3 to the left.

Fig. 3
7
7-3
=4



We've actually taken away 3 and can now see that the answer is smaller than the number with which we began. Match the number of counters on the third line to the number on line two and the

answer line also reads 4. Just as you did with addition, try using the Abacus to record subtraction of real objects, sweets, buttons, etc.

There are, of course, many other ways in which the "Invicta" Sliding Abacus can be used. If you think a little, you'll find lots of ways in which your child can play and learn.

The ideas we have suggested will act as starters and they are all based on well approved school methods for early child learning, but one final and important reminder "LEARNING MUST BE ENJOYABLE AND INTERESTING". Never go on after a child has lost interest. Try to think of different ways of asking the same question. First of all, let your child play.

