TEN FRAMES

Ten frames are ideal for developing number sense.
Ten frames may be used to model the numbers from one to ten.

For example:

Zero (0)

One (1)

0				

Nine (9)

0	0	0	0	0
0	0	0	0	

Ten (10)

0	0	0	0	0
0	0	0	0	0

Cells of the ten frame may be filled in one of two ways; five wise or pair wise.
Seven shown in a five wise configuration

0	0	0	0	0
0	0			

Seven shown in a pair wise configuration

0	0	0	0	
0	0	0		

Each configuration has its merits. The five wise configuration encourages links to five. The pair wise configuration emphasises, the idea of doubles, and one more and one less than doubles and odd and even numbers.

Consider the ten frame above. The students may notice:

- 6 and 1 makes 7
- 2 + 2 + 2 + 1 = 7
- Seven is an odd number because 'one bit is sticking out'.
- Three more will make ten
- ten take three is seven
- 7 + 3 = 10 …

Encourage children to share what they 'see' and to record it in a variety of ways. You will notice that sometimes I have used words, or numbers or symbols, or a combination to describe the patterns that children might observe. Some children will draw the ten frame

Using Ten Frames for learning doubles and related doubles

To show 3 and 3, or double three, first place three counters of the same colour in the top row. Three counters of a different colour may then be added to the second row to illustrate 3 + 3 = 6

0	0	0		
X	X	X		

Two ten frames may be joined together for larger doubles. For example 7 and 7.

0	0	0	0	0
X	X	X	X	X

0	0			
X	X			

Near Doubles

To calculate 6 + 5, the student must associate it with the closest double, either 5 + 5, or 6 + 6. The students may be taught to reason that 6 + 5 looks like a fact they already know; 5 + 5.

0	0	0	0	0
0	0	0	0	0

All the student needs to do is add one more.

0	0	0	0	0
0	0	0	0	0

X				

Link the associated number sentences; 6 + 5 = 5 + 5 + 1.

Notes written by Dr Paul Swan