

# A Guide to Multiplication



This is a supporting document for episode 3 in our mini-series 'Maths with Michael' which has been produced in collaboration with TV presenter, teacher and parent Michael Underwood.

$\sqrt{3}$

Aa

$\frac{25}{100}$

5x

$1+1=2$

## Maths Equipment

In this guide we use a place value chart, place value counters and a mini whiteboard.

If you don't have these you could:

- draw a place value chart on poster paper or the back of a cereal box
- make your own place value counters using card
- use other objects such as dried pasta or small toys.

### Place value chart

Hundreds	Tens	Ones

### 10 x hundred counters



### 20 x ten counters

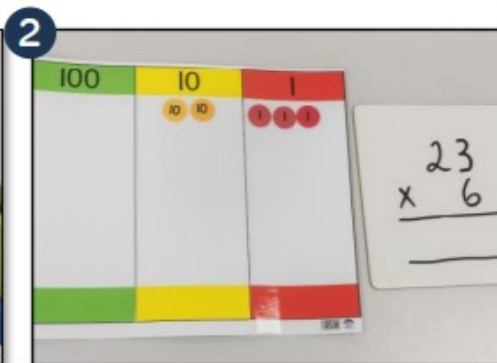


### 20 x one counters





We are going to multiply 23 by 6 using place value counters and a place value grid to help us.



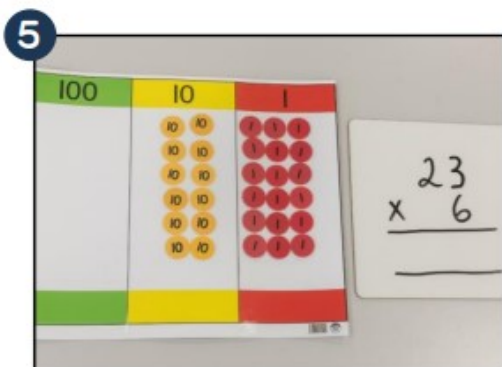
First build the number 23 in a single row on a place value grid and write the calculation on a whiteboard or piece of paper.



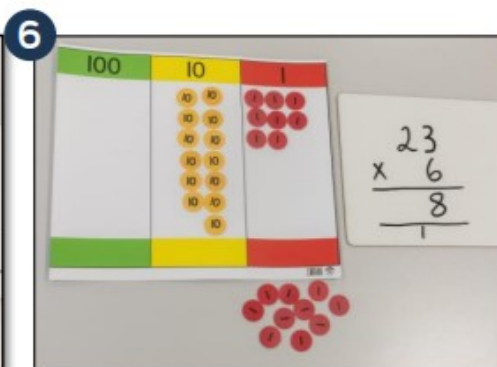
Ask "How many lots of 23 do we need to show?" They should be able to tell you that we need to show 6 lots of 23 because we're multiplying 23 by 6



Ask your child to show 6 rows of 23 on the place value grid.



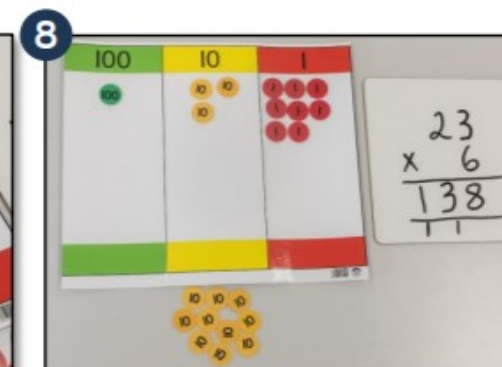
Ask "How many ones are there? Can we make an exchange?" That's right there are 18 ones and we can exchange 10 ones for 1 ten.



Replace 10 ones with 1 ten. Show this in the calculation highlighting that the 8 represents the remaining ones counters and the 1 below the line represents the ten counter.



Ask "How many tens are there? Can we make an exchange?" That's right there are 13 tens and we can exchange 10 tens for 1 hundred.



Show the exchange in the place value grid and on the calculation. Now we have 1 hundred, 3 tens and 8 ones. 23 multiplied by 6 is equal to 138

## Now Try These

$24 \times 3$

$32 \times 4$

$45 \times 3$

$124 \times 5$

Draw or use a place value grid and counters to help you. Remember to write down all the steps in your calculation too.



# Printouts – Place Value Chart

Hundreds	Tens	Ones