

Wednesday 10th June 2020

WALT solve multiplications using the expanded method in column format

Success Criteria:

I can use the expanded method of multiplication in written format

I can solve a range of problems

I can multiply in steps before adding columns of digits.

I can confidently explain my methods and reasoning

Key vocabulary: multiplication, multiply, column method, column, place value, ones (1s), tens (10s), hundreds (100s)

Write the date, WALT and success criteria into your purple book.

In today's lesson you will be learning how to multiply two digit by one digit numbers with exchange using the column method.

First watch the video below to re- cap on how to multiply a two digit number by a one digit number without exchange using the grid method.

<https://www.youtube.com/watch?v=TnOinzscfXw> multiplying using boxing up (grid) method (explanation)

<https://www.youtube.com/watch?v=rQFdBKAxUuM> multiplying using boxing up (grid) method (on a whiteboard)

Before you move on to the next part of the lesson complete these questions below using the grid or column method in your purple book.

1. $24 \times 5 =$

2. $32 \times 8 =$

Now you are going to move on to the next step of the lesson which involves exchanging and grouping.

Watch the videos below to show you how to work out calculations that involve exchanging.

https://www.youtube.com/watch?v=SfxULALs_u8- multiplying with exchange (carrying/regrouping)

<https://www.youtube.com/watch?v=fMKcr20E0yk> multiplying with exchange (carrying/regrouping)

You will be using the expanded method to help you to solve the sums. Here is a video to show you how it works.

<https://www.youtube.com/watch?v=mJJs7D1Knc> expanded method.

If you want to, you can write the number sentences you are calculating next to the answer section to help you to remember what two numbers you are multiplying.

Look at the example below:

	H	T	U	
		3	4	
x			3	
		1	2	← (3 × 4)
		9	0	← (3 × 30)
	1	0	2	

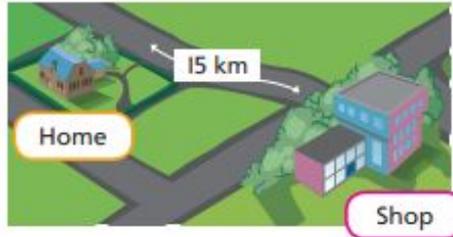
(image taken from

<https://sites.google.com/a/brightoncps.wa.edu.au/year-5-2016/ms-scholte-s-maths/expanded-multiplication>

The example below from power maths talks you through step by step how to multiply a two digit by one digit number with exchange using the column method and dienes.

Now you will have some practise using the examples below. Complete them in your purple book using the column method. Draw the place value chart out and represent the digits using dienes if this helps you.

- 1 Mr Jones travels along this road 6 times in a week.
What is the total distance he travels?



T	O
■■■■■■■■■■	■ ■ ■ ■ ■ ■ ■ ■
■■■■■■■■■■	■ ■ ■ ■ ■ ■ ■ ■
■■■■■■■■■■	■ ■ ■ ■ ■ ■ ■ ■
■■■■■■■■■■	■ ■ ■ ■ ■ ■ ■ ■
■■■■■■■■■■	■ ■ ■ ■ ■ ■ ■ ■
■■■■■■■■■■	■ ■ ■ ■ ■ ■ ■ ■

$6 \times 15 = \square$

T O	
1 5	
x 6	
+	

6×5
 6×10

- 2 Work out 15×5 .

T	O
■■■■■■■■■■	■ ■ ■ ■ ■ ■ ■ ■
■■■■■■■■■■	■ ■ ■ ■ ■ ■ ■ ■
■■■■■■■■■■	■ ■ ■ ■ ■ ■ ■ ■
■■■■■■■■■■	■ ■ ■ ■ ■ ■ ■ ■
■■■■■■■■■■	■ ■ ■ ■ ■ ■ ■ ■

$15 \times 5 = \square$

T O	
1 5	
x 5	
+	

$\square \times \square$
 $\square \times \square$

(taken from https://www.activelearnprimary.co.uk/downloadable-resource?id=792664&file=pm_v3_u05_tguide.pdf)

In tomorrow's lesson you will be using your learning from today's lesson to complete pages 24-26 from textbook b.