Learning Letter

Monday 11th May – Friday 15th May 2020

Year 6 – Miri and Chontel's Maths group 6MC

Maths this week

The focus for this week's learning is **solving number problems** Use paper and a pencil to complete the tasks in the Word document.

Lesson 1 -

Learning question:
Can I solve multiplication and division problems?

Success criteria:
- ☐ I can identify relevant information
- ☐ I can identify what a problem is asking me to do
- ☐ I can multiply and divide 1 and 2-digit numbers
- ☐ I can use the correct written strategy (x or ÷)

Example slide

What do you need to do?
1) Read each question carefully

2) Identify **important** information:
- *Clues (key words) to help you answer the question and see how many steps there are.*
- *Information and keywords that tell you what your number sentence/s is/are.*
- *Confirm what the main question is, after any calculations have been completed.*

Resources: Times table grid and place value grid

Task:
1. There are **24 pencils** in a box. A school buys **437 boxes**. How many **pencils** does the school buy?

2. Plants are sold in trays of **45**. Ivana buys **328 trays** of plants. How many plants is this?

3. There are 8 eggs in a box. How many boxes will 192 eggs fill?

4. A first class stamp costs **28p** and a second class stamp costs **19p**. How much does it cost to send **63** letters first class and **78** letters second class?

Lesson 2 –

Resources: Times table grid

Learning question:
Can I solve number problems?

Success criteria:
- ☐ I know what inverse operations means
- ☐ I can apply my knowledge of inverse operations to find unknown values

Task:

1) I think of a number. I add 15 and multiply by 2. Then I divide by 2 and

☐ I can decide the order of steps needed when solving a problem

TIP: Use the inverse. Go to the end and begin working your way backwards!

Example:

I think of a number. I ==subtract 25== and ==add 2==. I then ==multiply by 2==. My answer is ==154==. What was my number?

Write the problem out as a number sentence, then **reverse it:**

- **? – 25 + 2 x 2 = 154**

- **154 ÷ 2 – 2 + 25 = ?**

Step 1:

154 ==÷ 2== (inverse of '**multiply by 2**'   '**x 2**') = 77

Step 2:

77 ==– 2== (inverse of '**add 2**'   '**+ 2**') = 75

Step 3:

75 ==+ 25== (inverse of '**subtract 25**'   '**- 25**') = **100**

my answer is 16. What was my number?

2) I think of a number. I divide by 2 and add 98. My answer is 100. What was my number?

3) I think of a number. I add 50, multiply by 3 and subtract 25. My answer is 275. What was my number?

4) I think of a number. I multiply by 20, divide by 10 and subtract 5. The answer is 195. What was my number?

Lesson 3 -

Resources: Times table grid

Learning question:
Can I recall square numbers and cube numbers and the notation for them?

Success criteria:
- I can mentally multiply up to 4 numbers
- I can mentally divide numbers up to two digits (square roots)
- I can sort numbers (below 200) into: square numbers and cube

Numbers (e.g. interpret 8^2 as 8 x 8 = ==64== and 4^3 = 4 x 4 x 4 = ==64==, 5^2 = ==25==).

1) Can you explain what a squared number is?
....
Example..
2) Can you explain what a cubed number is ?
....
Example..

==Task:==
a) Answer the following sums, 4_2 – 3 = **13**
b) Find the letter that matches each answer
c) Identify the celebrity

3² 2³

$5^2 - 2$	$2^3 + 4$	$3^3 - 14$	2^3	$4^2 - 9$	$5^2 + 1$	$2^3 + 4$

What do you think these numbers and their symbols mean.

Square and cube numbers are numbers that can be either multiplied by themselves **or** multiplied by themselves (squared) and multiplied again (cubed).

Squaring a number

3^2 means '3 squared', or 3 × 3.

The small ^{2} is an index number, or **power**.

It tells us how many times we should multiply 3 by itself.

e.g. 7^2 means '7 squared', or 7 x 7.

And 10^2 means '10 squared', or 10 x 10.

So, $1^2 = 1 \times 1 = 1$

$3^2 = 3 \times 3 = 9$

etc

1, 4, 9… are known as square numbers.

Cubing a number

2 x 2 x 2 means '2 cubed', and is written as 2^3.

$1^3 = 1 \times 1 \times 1 = 1$

$2^3 = 2 \times 2 \times 2 = 8$

$3^3 = 3 \times 3 \times 3 = 27$

$4^3 = 4 \times 4 \times 4 = 64$

$5^3 = 5 \times 5 \times 5 = 125$

etc

1, 8, 27, 64, 125… are known as cube numbers.

Find the corresponding letter to each of your answers to reveal the celebrity's name...

A	B	C	D	E	F	G	H	I	J	K	L	M
8	2	10	26	6	15	20	24	1	19	3	7	25

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
13	12	22	14	23	9	4	5	1	17	11	18	16

The celebrity is…

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