## Summer term week $3 \mathrm{w} / \mathrm{b} 4^{\text {th }}$ May 2020

Maths:
(NB continual work to practise multiplication tables and learning to tell the time)
All these strategies can be found on Brookside you tube channel.
https://www.youtube.com/channel/UC-JJXZ7S29swCgB1WUVPR A
This week we are recapping on our multiplication strategies.
In year 3 we need to be able to instantly recall our 2,5,10,3, 4 and 8 times tables up to $\times 12$.
There are games on purple mash and times table rock stars to help you child learn these.
Multiplying by 10 and 100.
It is REALLY important children don't learn to add zero as this causes problems when they start multiplying decimals by 10 and 100.
We teach the children:
$5 \times 10$ when you $\times 10$ the digit (or digits) move one place to the left then call a place holder.

| $H$ | $O$ |  |
| :---: | :---: | :---: |
|  | 5 | 5 |
|  | 5 | 0 |


| $H$ | $T$ | $O$ |
| :--- | :--- | :--- |
|  | 2 | 3 |
|  |  |  |
|  |  |  |
| 2 | 3 | 0 |

To multiply by 100 then move 2 places to the left ( 1 zero = move 1 place; 2 zeros = move 2 places)
Now have a go at these:

1) $6 \times 10$
2) $15 \times 10$
3) $5 \times 10$
4) $34 \times 10$
5) $11 \times 10$
6) $60 \times 10$
7) $10 \times 10$
8) $12 \times 100$
9) $3 \times 100$
10) $10 \times 100$

Using known facts
To work out $30 \times 5$ we use known facts:
$3 \times 5=15$
So $30 \times 5=150$ (both sides have been multiplied by 10)
$200 \times 4$
$2 \times 4=8$ so $200 \times 4=800$ (both sides multiplied by 100)
Now have a go at these:

1) $40 \times 2$
2) $40 \times 7$
3) $5 \times 50$
4) $8 \times 60$
5) $20 \times 3$
6) $90 \times 7$
7) $60 \times 5$
8) $300 \times 3$
9) $200 \times 3$
10) $4 \times 400$

## Written method (grid)

$23 \times 5$

| $x$ | 20 | 3 |
| :---: | :---: | :---: |$c$| $2 \times 5=10$ |
| :---: |
| 5 |

$251 \times 3$

| $x$ | 200 | 50 | 1 |  |
| :--- | :--- | :--- | :--- | :---: |
|  |  |  |  | $2 \times 3=6$ <br> So $200 \times 3=600$ <br> $5 \times 3=15$ |
| 3 | 600 | 150 | 3 | $5 \times 3$ <br> So $50 \times 3=150$ |
|  |  |  |  |  |

$600+150+3=753$

Now have a go at these:

1) $45 \times 4$
2) $56 \times 8$
3) $27 \times 5$
4) $9 \times 48$
5) $36 \times 2$
6) $123 \times 5$
7) $5 \times 38$
8) $4 \times 134$
9) $59 \times 3$
10) $368 \times 3$

## Scaling

When we scale up it involves multiplying and using diagrams to solve problems is really important to develop children's understanding e.g.

1. Mrs Bodycote has 5 cakes and Mis Clarke has three times as many. How many cakes do they have altogether?

2. For every 3 boys in class there are 2 girls. Which of the combinations of boys and girls could be correct?

12 boys and 9 girls $x$
12 boys and 8 girls $\cdot$


Now have a go at these: (remember using diagrams is good!)
Scaling word problems:

1. Zara has 7 pens and Ezri-Rose has 4 times as many pens as Zara. How many pens does Ezri-Rose have?
2. Parneet has 9 stamps and Cody has twice as many. How many stamps does Cody have?
3. Kaysee has a toy car measuring 10 cm . Dhriti has a toy train that is 8 times as long as the car. How long is the train?
4. Mrs Cox has $£ 20$ and Mrs Bodycote has 5 times as much money. How much money has Mrs Bodycote got?
5. Miss Field is making buns. For every 40 g of flour she needs 1 egg. If she uses 5 eggs, how many grams of flour does she use?
If she uses 400 g of flour, how many eggs does she need?
6. For every 3 boys in class there are 2 girls. Which of the combinations of boys and girls could be correct?

18 boys and 12 girls
15 boys and 9 girls

## Extra Challenge:

## 1.

In a playground there are 3 times as many girls as boys.
There are 30 girls.
Label and complete the bar model to help you work out how many boys there are in the playground.


## 2.

A box contains some counters.
There are twice as many green counters as pink counters.
There are 18 counters in total. How many pink counters are there?

## Answers:

$X 10$ and 100

| 1) 60 | 1) 150 |
| :--- | :--- |
| 2) 50 | 2) 340 |
| 3) 110 | 3) 600 |
| 4) 100 | 4) 1200 |
| 5) 300 | 5) 1000 |

## Known facts

| 1) 80 | 1) 280 |
| :--- | :--- |
| 2) 250 | 2) 480 |
| 3) 60 | 3) 630 |
| 4) 300 | 4) 900 |
| 5) 600 | 5) 1600 |

## Grid method

| 1) 180 | 1) 448 |
| :--- | :--- |
| 2) 135 | 2) 432 |

3) 72
4) 615
5) 190
6) 536
7) 177
8) 1104

Scaling word problems:

1. 28 pens
2. 18 stamps
3. 80 cm
4. $£ 100$
5. 200 g and 10 eggs
6. 18 boys and 12 girls

Extra challenge:
1.
2. 6 pink counters

There are 10 boys in the playground.

```
boys }1
girls 10
    30
```

