KIRF: I know number bonds of 100

Number bonds show us how numbers join together. They are very important for addition and subtraction. This half term, the children will be learning number bonds of 100; they should be able to recall these independently.

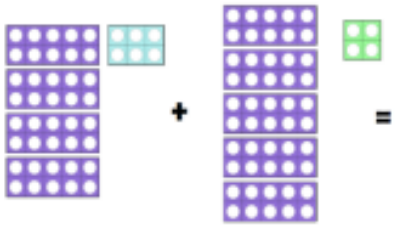
Year Four – Autumn 1

The children should know number bonds to 100. Some of these may include:

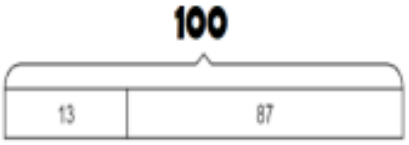
60 + 40 = 100	37 + 63 = 100
40 + 60 = 100	63 + 37 = 100
100 – 40 = 60	100 – 63 = 37
100 – 60 = 40	100 – 37 = 63
75 + 25 = 100	48 + 52 = 100
25 + 75 = 100	52 + 48 = 100
100 – 25 = 75	100 – 52 = 48
100 – 75 = 25	100 – 48 = 52

What can this look like?

Concrete:



Pictorial:



Abstract:

49 + ◯ = 100

100 – ◯ = 72.

Questions to ask at home

What do we need to add to 70 to make 100?

If I have 36, how many more do I need to get to 100?

What is the difference between 100 and 74?

Key vocabulary

25 **add** 75 **equals** 100

55 **plus** 45 is **the same as** 100

100 **take away** 6 equals 94

100 **subtract** 37 makes 63

The **difference between** 91 and 100 is 9

Things to try –

Chants- Practice chanting the number bonds.

Everyday Objects- Gather together objects and separate them in s many different ways as possible, write the calculation to match each one.

Make a poster – We use lots of concrete, pictorial and abstract methods in school. Your child could make a poster showing different methods to make the number bonds to 100.

Use your number bonds to 10 – Think about your number bonds to 10 and how they might help you. E.g.4+6=10 therefore 40+60=100

Websites:

https://www.topmarks.co.uk/maths-games/hit-the-button for number bonds to 100.

KIRF: I know the 6 & 9 times tables (x and ÷)

A times table is a list of multiples of the given number. They are very important for many calculations. This half term, the children will be learning their 6 and 9 times tables including the division facts.

Year Four – Autumn 2

Questions to ask at home

What is 6 **multiplied by** 7?

What is 9 **times** 8?

What is 54 **divided by 9**?

Key vocabulary

9 **multiplied** by 3 is **equal to** 27

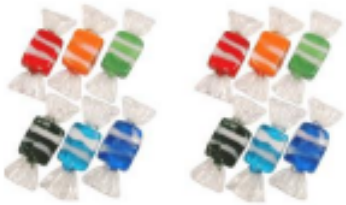
2 **times** 6 and 6 **times** 2 are **equivalent**

54 **shared by** 6 is **equal to** 9

72 **divided by** 9 **equals** 8

What can this look like?

Concrete:

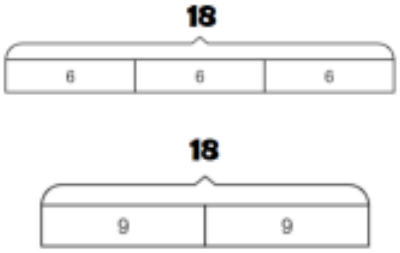


6 × 2 = 12

6 x ◯ = 24

◯ ÷ 9 = 3

Pictorial:



Abstract:

Six multiplied by ____ is equal to thirty

Nine multiplied by ___ is equal to thirty six

Things to try

Chants- Practice chanting the times table.

Double your 3's (for your 6's) – 3x4=12 double 12 equals 24. So 6x4=24

Use 10 times table (for your 9's) – Multiply a number by 10 then subtract off the original number. E.g. 7x10=70 subtract off the original number 70-7=63 so 9x7=63

Websites:

https://ttrockstars.com/ - Ask your teacher to set your TT Rockstar account to focus on the 6's & 9's.

Youtube – Type into Youtube '9 times table finger trick' to see an awesome way of learning your 9's quickly

1 × 6 = 6	6 ÷ 6 = 1	9 × 1 = 9	9 ÷ 9 = 1
2 × 6 = 12	12 ÷ 6 = 2	9 × 2 = 18	18 ÷ 9 = 2
3 × 6 = 18	18 ÷ 6 = 3	9 × 3 = 27	27 ÷ 9 = 3
4 × 6 = 24	24 ÷ 6 = 4	9 × 4 = 36	36 ÷ 9 = 4
5 × 6 = 30	30 ÷ 6 = 5	9 × 5 = 45	45 ÷ 9 = 5
6 × 6 = 36	36 ÷ 6 = 6	9 × 6 = 54	54 ÷ 9 = 6
7 × 6 = 42	42 ÷ 6 = 7	9 × 7 = 63	63 ÷ 9 = 7
8 × 6 = 48	48 ÷ 6 = 8	9 × 8 = 72	72 ÷ 9 = 8
9 × 6 = 54	54 ÷ 6 = 9	9 × 9 = 81	81 ÷ 9 = 9
10 × 6 = 60	60 ÷ 6 = 10	9 × 10 = 90	90 ÷ 9 = 10
11 × 6 = 66	66 ÷ 6 = 11	9 × 11 = 99	99 ÷ 9 = 11
12 × 6 = 72	72 ÷ 6 = 12	9 × 12 = 108	108 ÷ 9 = 12

KIRF: I know the 7 & 11 times tables (x and ÷)

A times table is a list of multiples of the given number. They are very important for many calculations. This half term, the children will be learning their 7 and 11 times tables including the division facts.

Year Four – Spring 1

Questions to ask at home

What is 7 **multiplied by** 5?

What is 11 **times** 8?

What is 63 **divided by** 7?

Key vocabulary

7 **multiplied** by 3 is **equal to** 21

11 **times** 6 and 6 **times** 11 are **equivalent**

42 **shared by** 7 is **equal to** 6

121 **divided by** 11 **equals** 11

What can this look like?

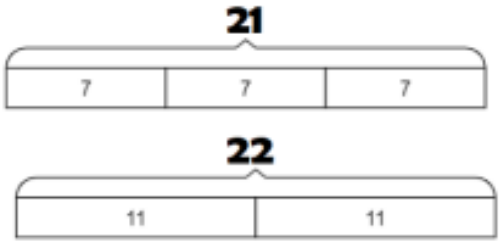
Concrete:

11 × 2 = 22

7 x ◯ = 56

◯ ÷ 11 = 12

Pictorial:



Abstract:

Seven multiplied by ____ is equal to twenty eight

Sixty six divided by _____ is equal to six

Things to try

Chants- Practice chanting the times table.

Look for patterns – The 11 times table follows a pattern. Can you spot it?

Use your other times tables – You've already learnt most of your other times tables. All of these included your 7's & 11's. Use them to help.

Websites:

https://ttrockstars.com/ - Ask your teacher to set your TT Rockstar account to focus on the 7's & 11's.

1 × 7 = 7	7 ÷ 7 = 1
2 × 7 = 14	14 ÷ 7 = 2
3 × 7 = 21	21 ÷ 7 = 3
4 × 7 = 28	28 ÷ 7 = 4
5 × 7 = 35	35 ÷ 7 = 5
6 × 7 = 42	42 ÷ 7 = 6
7 × 7 = 49	49 ÷ 7 = 7
8 × 7 = 56	56 ÷ 7 = 8
9 × 7 = 63	63 ÷ 7 = 9
10 × 7 = 70	70 ÷ 7 = 10
11 × 7 = 77	77 ÷ 7 = 11
12 × 7 = 84	84 ÷ 7 = 12

11 × 1 = 11	11 ÷ 11 = 1
11 × 2 = 22	22 ÷ 11 = 2
11 × 3 = 33	33 ÷ 11 = 3
11 × 4 = 44	44 ÷ 11 = 4
11 × 5 = 55	55 ÷ 11 = 5
11 × 6 = 66	66 ÷ 11 = 6
11 × 7 = 77	77 ÷ 11 = 7
11 × 8 = 88	88 ÷ 11 = 8
11 × 9 = 99	99 ÷ 11 = 9
11 × 10 = 110	110 ÷ 11 = 10
11 × 11 = 121	121 ÷ 11 = 11
11 × 12 = 132	132 ÷ 11 = 12

KIRF: I know ALL times table facts to 12x12 (x and ÷)

A times table is a list of multiples of the given number. They are very important for many calculations. This half term, the children will be learning all of their times tables including the division facts up to 12x12.

Year Four – Spring 2

Questions to ask at home

What is 12 **multiplied by** 6?

What is 12 **times** 8?

What is 84 **divided by** 12?

Key vocabulary

12 **multiplied** by 6 is **equal to** 72

12 **times** 4 and 4 **times** 12 are **equivalent**

120 **shared by** 12 is **equal to** 10

132 **divided by** 12 **equals** 11

What can this look like?

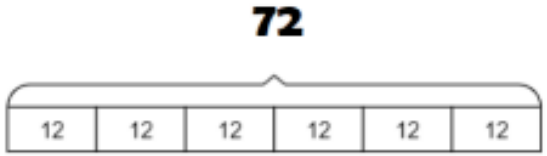
Concrete:

12 × 2 = 24

12 x ◯ = 72

◯ ÷ 12 = 5

Pictorial:



Abstract:

Twelve multiplied by ____ is equal to sixty

_____ divided by eight is equal to twelve

Things to try

Chants- Practice chanting the times table.

Speed Challenge – Take two packs of playing cards and remove the kings. Shuffle the packs and turn over two cards and ask your child to multiply the numbers together (Ace=1, Jack = 11, Queen = 12). How many questions can they answer correctly in 2 minutes? Practice regularly and see if they can beat their high score.

Websites:

https://ttrockstars.com/ - Ask your teacher to set your TT Rockstar account to all tables

X	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	60	66	72
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	45	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144

KIRF: I can multiply and divide a single digit by 10 & 100

This half term, the children will be learning how to multiply and divide a single digit by 10 and 100. The aim is for them to be able to recall these facts instantly.

Year Four – Summer 1

Questions to ask at home

What is 5 **multiplied by** 10?

What is 10 **times** 0.8?

What is 800 **divided by** 100?

Key vocabulary

7 **multiplied** by 100 is **equal to** 700

120 **shared by** 10 is **equal to** 1.2

132 **divided by** 12 **equals** 11

0.6 is **zero ones and six tenths**

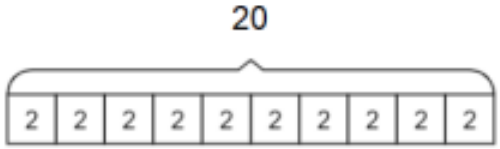
One tenth and four hundredths is 0.16

What can this look like?

Concrete:

10 x 3 = 30

Pictorial:



2 × 10 = 20

Abstract:

8 x ◯ = 800

◯ ÷ 10 = 0.5

Things to try

1000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$
				.		
				.		
				.		
				.		
				.		

Why not use/draw out a place value chart like this one to help.

Remember when multiplying, the digits move to the left.

When dividing, the digits move to the right.

https://www.topmarks.co.uk/Flash.aspx?f=bingotimesordivide

Try this website for an interactive Bingo game.

Some examples of questions

7 × 10 = 70	30 × 10 = 300	0.8 × 10 = 8
10 × 7 = 70	10 × 30 = 300	10 × 0.8 = 8
70 ÷ 7 = 10	300 ÷ 30 = 10	8 ÷ 0.8 = 10
70 ÷ 10 = 7	300 ÷ 10 = 30	8 ÷ 10 = 0.8
6 × 100 = 600	40 × 100 = 4000	0.2 × 10 = 2
100 × 6 = 600	100 × 40 = 4000	10 × 0.2 = 2
600 ÷ 6 = 100	4000 ÷ 40 = 100	2 ÷ 0.2 = 10
600 ÷ 100 = 6	4000 ÷ 100 = 40	2 ÷ 10 = 0.2

KIRF: I can recognise simple equivalent fractions

Year Four – Summer 2

When two fractions have different numerators and denominators to one another but share the same numerical value, they are called 'equivalent fractions'. The aim is to be able to recall some of these instantly.

Questions to ask at home

What is an **equivalent fraction** to $\frac{1}{2}$?

Is $\frac{2}{4}$ **equivalent** to $\frac{1}{2}$?

What is an **equivalent fraction** to $\frac{1}{3}$?

What is an **equivalent fraction** to $\frac{1}{5}$?

What can this look like? –

Concrete:

Pictorial:

$\frac{1}{4} = \frac{3}{12}$

Abstract:

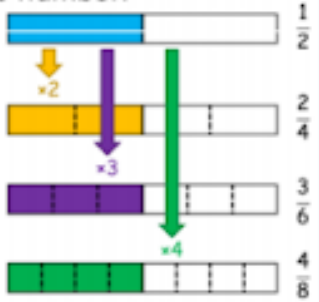
Find me 4 equivalent fractions to $\frac{1}{4}$

Website to try

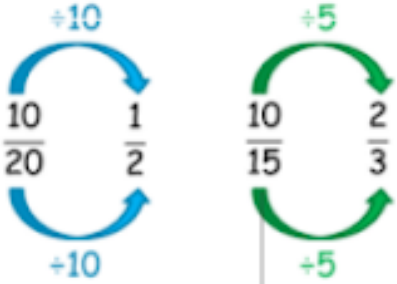
Phet fractions equality – This website features different games to help understand equivalent fractions.

https://phet.colorado.edu/sims/html/fractions-equality/latest/fractions-equality_en.html

You can find equivalent fractions quickly by multiplying the numerator & denominator by the same number.



You can cancel a fraction to its simplest form by dividing the numerator and denominator by the same amount.



Use a fraction wall to help