Key Facts – Year 6
Autumn 1

Target – I know the multiplication facts for up to 12 x 12

Key Vocabulary:

multiply times lots of
multiple

Hints:
Ensure this is practiced regularly but in small bursts.

When practicing, do so in different orders and recall facts from different multiples

Activities

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

Questions

What is 7 x 4?
What is 9 lots of 12?
What is a multiple of 84?
Is 96 a multiple of 8?

Games

www.timestable.co.uk
www.mathschase.com
www.topmarks.co.uk

Key Questions?

- Can children quickly recall multiplication facts in any order?
- Can children name the multiplication facts that equal a given number?
- Can children use facts to quickly find the answers to larger facts?

Hmmmmmmm 22 x 7?

Well, 20 x 7 = 140
2 x 7 = 12

So 22 x 7 must be 152

Key Facts – Year 6
Autumn 2

Target – To find factors pairs of a numbers

Key Vocabulary:

factor product multiplied common factor

Hints:
Make links to previous learning on multiplication facts
Make links to knowledge of multiplication facts

Activities

$24 = 4 \times 6$
$24 = 8 \times 3$
$56 = 7 \times 8$
$54 = 9 \times 6$

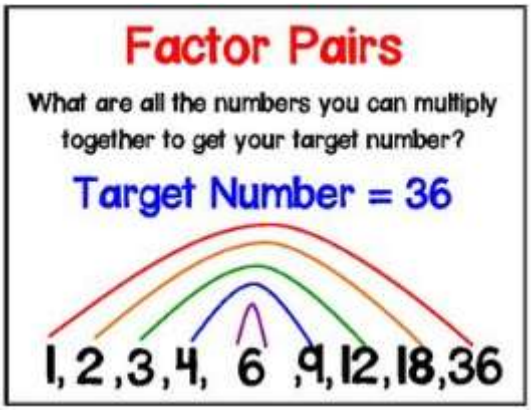
$42 = 6 \times 7$
$25 = 5 \times 5$
$84 = 7 \times 12$
$15 = 5 \times 3$

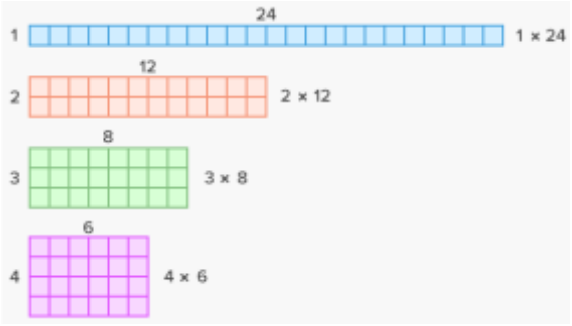
Games

Get children to give a 'fact of a day'
This is my number, how many factor pairs can you find?
I think '84' has less factor pairs than '12'. Prove it.

Key Questions

- Can children answer a hypothesis, i.e "The bigger the number, the more factor pairs it has"
- If you give a number, can children recall all the number facts for it in a systematic way?
- Can children explain some numbers do not have any factor pairs and explain why?
- Can children show the factor pairs in a range of ways





Finding the Factor Pairs of 120

1	120
2	60
3	40
4	30
5	24

6	20
7	17.1429
8	15
9	13.3333
10	12

Use a calculator and the inverse to investigate decimals

Key Facts – Year 6
Spring 1

Target – To convert between fractions, decimals and percentages

Key Vocabulary:

fraction decimal percentage
tenths decimal place

Hints:
Make links to amounts totalling 100
Draw children's attention to real life situations
Use number lines to create pictorial representation

Activities

$\frac{1}{2} = 0.5$
$\frac{1}{4} = 0.25$
$\frac{3}{4} = 0.75$
$\frac{1}{10} = 0.1$
$\frac{1}{5} = 0.2$
$\frac{3}{5} = 0.6$
$\frac{9}{10} = 0.9$

$\frac{1}{100} = 0.01$
$\frac{7}{100} = 0.07$
$\frac{21}{100} = 0.21$
$\frac{75}{100} = 0.75$
$\frac{99}{100} = 0.99$

By the end of this half term children should be able to quickly recall these facts. They should also understand….

100% = 1 Whole

Therefore 21/100 = 21% = 0.21

It is not more than 100 so it cannot be 'a whole'

Extension

Decimal to fraction

$23.4 = 20 + 3 + 0.4$

OR

$23.4 = 20 + 3 + \frac{4}{10}$

or

Decimal to fraction

Example: Convert 0.25 to a fraction.

Step One: Rewrite the decimal as a fraction with a denominator of one.

Step Two: Multiply the numerator and denominator by 10^n where n equals the number of digits after the decimal.

$\frac{0.25}{1} \quad \frac{0.25 \times 100}{1 \times 100} = \frac{25}{100}$

We know……

$\frac{25}{100}$ **= 25%**

if we get stuck, we can convert to a fraction then to a percentage

Key Facts – Year 6
Spring 2

Target – To recall prime numbers up to 50

Key Vocabulary:

prime number composite number
factor multiple

Hints:
When discussing prime numbers, bring multiplication knowledge into the conversation. Remind children of previous learning, when revising prime numbers to 20.

Activities

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Questions

How do I know if a number is prime?
What is the next prime number after 37?
What is the largest prime number below 50?

Games

Number cards to 50 face down, take turns to turn one over, if it is a prime number the first person to shout "PRIME!" wins the card.

Player 1 says a prime number, Player 2 says the next prime number, keep going back and forth until someone says the wrong prime number.

Key Questions?

- Can a child explain why a specific prime number is prime?
- Can a child quickly recall what the prime number is a multiple of?
- Can a child explain why a certain number is not prime?