## I can partition numbers to 10 into two groups.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

Zero and ten make ten. One and nine make ten. Two and eight make ten. Three and seven make ten. Four and six make ten. Five and five make ten.

## Top Tips:

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey?
You don't need to practise them all at once: perhaps you could have a fact of the day.
If you would like more ideas, please speak to your child's teacher.

Use practical resources, for example -

- Use items around the house to find different ways of making 10. e.g. one blue building block and nine red building blocks. ' One and nine make ten.'
- Make up stories with items around the home, e.g. there are 2 cars in the car park and 8 more cars arrive, how many cars altogether? 'Two and eight make ten.'
- Asking questions during daily routines e.g. you have four chips on your plate and I have six chips on my plate, how many chips altogether? 'Four and six make ten.'
- Jack Hartmann number pairs to 10 singing and moving You Tube clips: https://www.youtube.com/watch?v=ch7Kzl3n2Zk Number Pairs to 10 https://www.youtube.com/watch?v=ID9tjBUiXs0 Number Bonds to 10


## I know doubles and halves of numbers up to 10.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

| $0+0=0$ | half of $0=0$ |
| :--- | :--- |
| $1+1=2$ | half of $2=1$ |
| $2+2=4$ | half of $4=2$ |
| $3+3=6$ | half of $6=3$ |
| $4+4=8$ | half of $8=4$ |
| $5+5=10$ | half of $10=5$ |
| $6+6=12$ |  |
| $7+7=14$ |  |
| $8+8=16$ |  |
| $9+9=18$ |  |
| $10+10=20$ |  |

## Key Vocabulary <br> What is double 9 ?

What is half of $6 ?$

$$
10+10=20
$$

Top Tips:
The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey?
You don't need to practise them all at once: perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Ping Pong - In this game, the adult says 'Ping', and the child says 'Pong'. Then the adult says a number and the child doubles it. For a harder version, the adult can say 'Pong'. The child replies 'Ping' and then halves the number given.

Play Games - You can play doubling and halving games online such as Hit the Button, https://www.topmarks.co.uk/maths-games/hit-the-button. See how many questions you can answer in just one minute.

## I know the multiplication and division facts for the 5 times table.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

| $5 \times 1=5$ | $5 \div 5=1$ |
| :--- | :--- |
| $5 \times 2=10$ | $10 \div 5=2$ |
| $5 \times 3=15$ | $15 \div 5=3$ |
| $5 \times 4=20$ | $20 \div 5=4$ |
| $5 \times 5=25$ | $25 \div 5=5$ |
| $5 \times 6=30$ | $30 \div 5=6$ |
| $5 \times 7=35$ | $35 \div 5=7$ |
| $5 \times 8=40$ | $40 \div 5=8$ |
| $5 \times 9=45$ | $45 \div 5=9$ |
| $5 \times 10=50$ | $50 \div 5=10$ |
| $5 \times 11=55$ | $55 \div 5=11$ |
| $5 \times 12=60$ | $60 \div 5=12$ |

## Key Vocabulary <br> What 5 multiplied by

3 ?

## What 5 times 9 ?

What is 45 divided by
5?

They should be able to answer these questions in any order, including missing number questions e.g. $5 \times \bigcirc=20$ or $\bigcirc 5=7$
Top Tips:
The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey?
You don't need to practise them all at once: perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Songs and Chants - There are lots of songs available on You Tube,. The Number Blocks song can be found by following this link: https://www.youtube.com/watch?v=KPffpuHYIhc

Test the Adult - Your child can make up their own tricky division questions for you e.g. What is 45 divided by 5 ? They need to be able to multiply to create these questions.

Play games - See how many questions you can answer in just one minute by playing the multiplying and dividing by 5 games on www.hitthebutton.co.uk

Spot Patterns - What patterns can your child spot in the 5 times table? Are there any similarities with the 10 times table?

## I can recall facts about duration of time.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantlv.

There are 60 seconds in a minute.
There are 60 minutes in an hour.
There are 24 hours in a day.
There are 7 days in a week.
There are 12 months in a year.
There are 365 days in a year.
Number of days in each month

January 31 July 31
February 28/29 August 31
March 31 September 30
April 30
May 31 November 30
June 30 December 31

There are 366 days in a leap year.
Children also need to know the order of the months in a year. They should be able to apply these facts to answer questions such as:

- What day comes after 30th April?
- What day comes before 1st February?


## Top Tips:

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey?
You don't need to practise them all at once: perhaps you could have a fact of the day.
Use rhymes and memory games - The rhyme, Thirty days hath September, can help children remember which months have 30 days. There are poems describing the months of the year in order and the knuckle month trick helps to identify months with 31 days.
Use calendars - If you have a calendar for the new year, your child could be responsible for recording the birthdays of friends and family members. Your child could even make their own calendar.
How long is a minute? - Ask your child to sit with their eyes closed for exactly one minute while you time them. Can they guess the length of a minute? Carry out different activities for one minute. How many times can they jump in sixty seconds?

## Boundary

## Key Instant Recall Facts

 Year Four - Spring 2
## I know the multiplication and division facts for the $\mathbf{1 1}$ and $\mathbf{1 2}$ times table.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantlv.

| $11 \times 0=0$ | $0=0 \times 12$ | $0 \div 11=0$ | $0 \div 12=0$ |
| :---: | :---: | :---: | :---: |
| $11 \times 1=11$ | $12=1 \times 12$ | 11* $11=1$ | $12 \div 12=1$ |
| $11 \times 2=22$ | $24=2 \times 12$ | $22 \div 11=2$ | $24 \div 12=2$ |
| $11 \times 3=33$ | $36=3 \times 12$ | $33 \div 11=3$ | $36 \div 12=3$ |
| $11 \times 4=44$ | $48=4 \times 12$ | $44 \div 11=4$ | $48 \div 12=4$ |
| $11 \times 5=55$ | $60=5 \times 12$ | $55 \div 11=5$ | $60 \div 12=5$ |
| $11 \times 6=66$ | $72=6 \times 12$ | $66 \div 11=6$ | $72 \div 12=6$ |
| $11 \times 7=77$ | $84=7 \times 12$ | $77 \div 11=7$ | $84 \div 12=7$ |
| $11 \times 8=88$ | $96=8 \times 12$ | $88 \div 11=8$ | $96 \div 12=8$ |
| $11 \times 9=99$ | $108=9 \times 12$ | $99 \div 11=9$ | $108 \div 12=9$ |
| $11 \times 10=110$ | $120=10 \times 12$ | $110 \div 11=10$ | $120 \div 12=10$ |
| $11 \times 11=121$ | $132=11 \times 12$ | $121 \div 11=11$ | $132 \div 12=11$ |
| $11 \times 12=132$ | $144=12 \times 12$ | $132 \div 11=12$ | $144 \div 12=12$ |

They should be able to answer these questions in any order, including missing number questions e.g. $9 \times \bigcirc=108$ or $\bigcirc 11=7$

## Key Vocabulary

What is 12 multiplied by 6 ? What is 11 times 8 ? What is 84 divided by 12 ?

## Top Tips:

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey?
You don't need to practise them all at once: perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.
Play games - See how many questions you can answer in just one minute by playing a game at www.hitthebutton.co.uk
Look for patterns- These times tables are full of patterns for your child to find. How many can they spot?
Use your ten times table - Multiply a number by ten and add the original number (e.g. $7 \times 10+7=77$ ) What do you notice? What happens if you times by 10 and double your original number? (e.g. for $7 \times 12$ you would do $7 \times 10+14=84$ ) What do you already know? - Your child will already know most of these facts from the $2,3,4,5,6,7,8,9$ and 10 times tables. It may be worth practising these again.

## I can double and halve any number up to 100.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.
Double $35=70$
Double $70=140$
Double $82=164$

## Etc...

## Key Vocabulary <br> Half

Double

Times 2

Divide by 2

Half of $34=17$
Half of $15=7.5$ or 7 and a half
Half of $99=44.5$ or 44 and a half Etc...

Children should be able to quickly work out any double or half up to 100. They should be able to explain how they found the answers.

Top Tips:
The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey?
If you would like more ideas, please speak to your child's teacher.

Encourage your child to partition the number into its tens and ones. They can quickly half each of these and then add them together. The same applies for doubling.
e.g. Half of $47-$ Half of 40 is 20 and...

Half of 7 is 3.5 or 3 and a half so...
Half of 47 is 23.5 or 23 and a half.

Play Games - You can play doubling and halving games online such as Hit the Button, https://www.topmarks.co.uk/maths-games/hit-the-button. See how many questions you can answer in just one minute.

## I can identify prime numbers up to 50.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

A prime number is a number with no factors other than one and itself.

The following numbers are prime numbers:
$2,3,5,7,11,13,17,19,23,29,31,37,41,43$ and 47
A composite number is divisible by a number other than one and itself.

The following numbers are composite numbers:

Key Vocabulary
Prime number

Composite number

Factor

Multiple
$4,6,8,9,10,12,14,15,16,18,20,22,24,25,26,27,28,30,32,34,35,36$, $38,40,42,44,45,46,48,49$ and 50

Children should be able to explain how they know that a number is composite. E.g. 39 is a composite number because it is a multiple of 3 and 13 .

## Top Tips:

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey?
You do not need to practise them all at once; perhaps you could have a fact of the day.

It is very important that your child uses the correct mathematical vocabulary. Choose a number between 2 and 50. How many correct statements can your child make using the key vocabulary above?

Play Games - Make a set of cards for the numbers from 2 to 50 . How quickly can your child sort these into prime and composite numbers? How many even prime numbers can they find? How many odd composite numbers can they find?

Please note that 1 is not a prime number or a composite number.

