

## OVERVIEW OF KIRFs (Key Instant Recall Facts) TERM-BY-TERM

	RECEPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
AUTUMN TERM 1	Say the number names in order to 5.	Know all the number bonds for 5.	Know all number bonds for 10 and 20.	Know all number bonds for each number to 20.	Know all number bonds for 100.	Know all decimals that total 1 or 10 (1 decimal place)	Know all previous number bonds including decimals.
AUTUMN TERM 2	Say the numbers in order to 10	Know all number bonds for 10	Know multiplication and division facts for 2x table.	Know multiplication and division facts for 2x, 4x and 8x table.	Know multiplication and division facts for the 7x table.	Consolidate multiplication and division facts for all times tables.	Derive multiplication and division facts using decimal numbers (e.g. $8 \times 0.7 = 5.6$ )
SPRING TERM 1	Be able to partition numbers to 5 into two groups	Know all number bonds for 20.	Know multiplication and division facts for 10x table.	Know doubles and halves of all whole numbers to 20	Know the decimal and percentage equivalents of the fractions $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{3}{4}$ , $\frac{1}{3}$ , $\frac{2}{3}$ , tenths and fifths	Know the doubles and halves of all two-digit numbers	Know doubles and halves of 2-digit decimals.
SPRING TERM 2	Count in 10s	Know all doubles and halves of even numbers to 20	Know the halves of 1,3,5,7 and 9 as a fraction	Know all number bonds for 100 using multiples of 5	Know all pairs of multiples of 50 with a total of 1000.	Know the prime numbers within 100	Know square numbers to $12 \times 12$ .
SUMMER TERM 1	Count in 2s	Know all addition and subtraction facts for all numbers between 0 and 10.	Know all addition and subtraction facts for multiples of 10 to 100.	Know all multiplication and division facts for 3x, 6x and 9x table.	Know multiplication and division facts for the 11 and 12x table.	Know all pairs of factors of numbers up to 100.	Know the tests for divisibility for numbers up to 10
SUMMER TERM 2	Count in 5s	Count forward and backward in steps of 2, 5 and 10.	Know multiplication and division facts for 5x table.	Know multiplication and division facts for 2, 5 and 10x table	Know all number bonds for £1 using decimal notation	Know the decimal and percentage equivalents of the fractions $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{3}{4}$ , $\frac{1}{3}$ , $\frac{2}{3}$ , tenths and fifths	Know the square roots of square numbers to $15 \times 15$

# SUMMARY OF KIRFs (Key Instant Recall Facts): RECEPTION

COUNTING & PLACE VALUE	NUMBER BONDS	ADDITION & SUBTRACTION
<ul style="list-style-type: none"> <li>✿ Count the numbers in order up to 5</li> <li>✿ Count back from 5 to 0 in order</li> <li>✿ Count the numbers in order up to 10</li> <li>✿ Count back from 10 to 0 in order</li> <li>✿ Count the numbers in order up to 20</li> <li>✿ Count back from 20 to 0 in order</li> <li>✿ Read numbers to 10</li> <li>✿ Write numbers to 10</li> <li>✿ Count numbers to 10</li> <li>✿ Order numbers to 10</li> <li>✿ Read numbers to 20</li> <li>✿ Write numbers to 20</li> <li>✿ Count numbers to 20</li> <li>✿ Order numbers to 20</li> </ul>	<ul style="list-style-type: none"> <li>✿ Partition numbers to 5 into two groups</li> </ul>	<ul style="list-style-type: none"> <li>✿ Use physical representations to add and subtract</li> </ul>
DOUBLING & HALVING	MULTIPLICATION & DIVISION FACTS	MEASURES
	<ul style="list-style-type: none"> <li>✿ Count in 10s</li> <li>✿ Count in 2s</li> </ul>	<ul style="list-style-type: none"> <li>✿ Know the days of the week in order</li> </ul>

# SUMMARY OF KIRFs (Key Instant Recall Facts): YEAR 1

COUNTING & PLACE VALUE	NUMBER BONDS	ADDITION & SUBTRACTION
<ul style="list-style-type: none"> <li>✿ Count to and across 100, forwards and backwards, from any given number</li> <li>✿ Count forwards and backwards in steps of 10</li> <li>✿ Count forwards and backwards in steps of 2</li> <li>✿ Count forwards and backwards in steps of 5</li> <li>✿ Given a number, identify one more and one less</li> <li>✿ Read and write numbers to 20 (numerals and words)</li> </ul>	<ul style="list-style-type: none"> <li>✿ Know all number bonds to 5</li> <li>✿ Find patterns in number bonds to 5</li> <li>✿ Know all number bonds to 10</li> <li>✿ Find patterns in number bonds to 5</li> <li>✿ Know all addition facts for all numbers between 0 and 10</li> <li>✿ Know all subtraction facts for all numbers between 0 and 10</li> <li>✿ Understand missing number calculations</li> </ul>	<ul style="list-style-type: none"> <li>✿ Add a one digit number to a two-digit number to 20</li> <li>✿ Subtract a one digit number from a two-digit number to 20</li> <li>✿ Add numbers to 10</li> <li>✿ Subtract numbers to 10</li> <li>✿ Add numbers to 20</li> <li>✿ Subtract numbers to 20</li> <li>✿ Add a multiple of 10 to a two digit number (using a 100 square and flip flap)</li> <li>✿ Subtract a multiple of 10 from a two digit number (using a 100 square and flip flap)</li> <li>✿ Solve missing number calculations</li> <li>✿ Understand the effect of adding and subtracting 0</li> </ul>
DOUBLING & HALVING	MULTIPLICATION & DIVISION FACTS	MEASURES
<ul style="list-style-type: none"> <li>✿ Know all doubles to 10</li> <li>✿ Know all halves to 10</li> </ul>	<ul style="list-style-type: none"> <li>✿ x10</li> </ul>	<ul style="list-style-type: none"> <li>✿ Know the seasons in order</li> <li>✿ Know the months of the year in order</li> <li>✿ Tell the time at o'clock and half past</li> </ul>

# SUMMARY OF KIRFs (Key Instant Recall Facts): YEAR 2

COUNTING & PLACE VALUE	NUMBER BONDS	ADDITION & SUBTRACTION
<ul style="list-style-type: none"> <li>✿ Count in 10s from any given number, forwards and backwards</li> <li>✿ Count in 2s from any given number, forwards and backwards</li> <li>✿ Understand the value of Tens &amp; Ones</li> <li>✿ Count in 2s from 0 forwards and backwards</li> <li>✿ Count in 3s from 0 forwards and backwards</li> <li>✿ Count in 5s from 0 forwards and backwards</li> <li>✿ Read and write numbers to 100 (numerals and words)</li> </ul>	<ul style="list-style-type: none"> <li>✿ Know all number bonds to 20</li> <li>✿ Find patterns in number bonds to 20</li> <li>✿ Link number bonds to 20 to number bonds to 10</li> <li>✿ Understand the = sign in balancing equations</li> <li>✿ Use and understand &lt; and &gt; signs</li> <li>✿ Understand missing number calculations</li> </ul>	<ul style="list-style-type: none"> <li>✿ Add multiples of 10, including crossing significant boundaries</li> <li>✿ Subtract multiples of 10, including crossing significant boundaries</li> <li>✿ Know all addition facts for multiples of 10 to 100</li> <li>✿ Know all subtraction facts for multiples of 10 to 100</li> </ul>
DOUBLING & HALVING	MULTIPLICATION & DIVISION FACTS	MEASURES
<ul style="list-style-type: none"> <li>✿ Know the doubles of all numbers to 20</li> <li>✿ Know the halves of all numbers to 20</li> </ul>	<ul style="list-style-type: none"> <li>✿ x2</li> <li>✿ x5</li> <li>✿ x10</li> <li>✿ Children recognise odd and even numbers</li> <li>✿ ÷ facts for x 2</li> <li>✿ ÷ facts for x 5</li> <li>✿ ÷ facts for x 10</li> </ul>	<ul style="list-style-type: none"> <li>✿ Know how many pennies in a £</li> <li>✿ Know the number of minutes in an hour</li> <li>✿ Know the number of hours in a day</li> </ul>

# SUMMARY OF KIRFs (Key Instant Recall Facts): YEAR 3

COUNTING & PLACE VALUE	NUMBER BONDS	ADDITION & SUBTRACTION
<ul style="list-style-type: none"> <li>✿ Count from 0 in multiples of 100</li> <li>✿ Count from 0 in multiples of 50</li> <li>✿ Count from 0 in multiples of 4</li> <li>✿ Count from 0 in multiples of 8</li> <li>✿ Count in 4s from any given number, forwards and backwards</li> <li>✿ Count in 3s from any given number, forwards and backwards</li> <li>✿ Find 10 more / less than a given number</li> <li>✿ Find 100 more / less than a given number</li> <li>✿ Understand the value of H, T &amp; Ones</li> <li>✿ Read and write numbers to 1000 (numerals and words)</li> </ul>	<ul style="list-style-type: none"> <li>✿ Understand the = sign in balancing equations</li> <li>✿ Use and understand &lt; and &gt; signs</li> <li>✿ Understand missing number calculations</li> <li>✿ Know all number bonds to 100</li> <li>✿ Visualise number bonds to 100 on a number line</li> <li>✿ Find patterns within number bonds to 100</li> </ul>	<ul style="list-style-type: none"> <li>✿ Know all addition and subtraction facts for multiples of 100 to 1000</li> <li>✿ Know all addition and subtraction facts for multiples of 5 with a total of 100</li> <li>✿ Know all addition and subtraction facts for number pairs with a total of 100</li> <li>✿ Add and subtract mentally:                             <ul style="list-style-type: none"> <li>○ A three-digit number and ones</li> <li>○ A three-digit number and tens</li> <li>○ A three-digit number and hundreds</li> </ul> </li> </ul>
DOUBLING & HALVING	MULTIPLICATION & DIVISION FACTS	MEASURES
<ul style="list-style-type: none"> <li>✿ Know doubles of all multiples of 10 to 500</li> <li>✿ Know halves of all multiples of 10 to 500</li> <li>✿ Know doubles of all multiples of 100 to 5000</li> <li>✿ Know halves of all multiples of 100 to 5000</li> </ul>	<ul style="list-style-type: none"> <li>✿ x4</li> <li>✿ x3</li> <li>✿ x8</li> <li>✿ ÷ facts for x4</li> <li>✿ ÷ facts for x3</li> <li>✿ ÷ facts for x8</li> <li>✿ x50</li> <li>✿ x100</li> <li>✿ Children recognise that multiples of even times tables are all even</li> </ul>	<ul style="list-style-type: none"> <li>✿ Know the number of seconds in a minute</li> <li>✿ Know the number of days in each month, year and leap year</li> <li>✿ Understand am and pm; noon and midnight</li> <li>✿ Recognise right angles</li> </ul>

# SUMMARY OF KIRFs (Key Instant Recall Facts): YEAR 4

COUNTING & PLACE VALUE	NUMBER BONDS	ADDITION & SUBTRACTION
<ul style="list-style-type: none"> <li>✿ Count from 0 in multiples of 25 and 1000</li> <li>✿ Count from 0 in multiples of 6, 9, 7, 11 and 12</li> <li>✿ Understand the value of Th, H, T &amp; Ones</li> <li>✿ Find 1000 more / less than a given number</li> <li>✿ Count backwards through 0 to include negative numbers</li> </ul>	<ul style="list-style-type: none"> <li>✿ Understand the = sign in balancing equations</li> <li>✿ Use and understand &lt; and &gt; signs</li> <li>✿ Understand missing number calculations</li> <li>✿ Recognise and use factor pairs and commutativity in mental calculations</li> <li>✿ Know all pairs of multiples of 50 with a total of 1000</li> </ul>	<ul style="list-style-type: none"> <li>✿ Add and subtract pairs of two digit numbers</li> <li>✿ Add and subtract 9/19/29 etc. to two digit numbers</li> <li>✿ Add and subtract 11/21/31 etc. to two digit numbers</li> </ul>
DOUBLING & HALVING	MULTIPLICATION & DIVISION FACTS	MEASURES
<ul style="list-style-type: none"> <li>✿ Know doubles and halves of all whole numbers to 50</li> <li>✿ Know doubles and halves of all multiples of 5 to 1000</li> <li>✿ Know doubles and halves of all multiples of 50 to 5000</li> </ul>	<ul style="list-style-type: none"> <li>✿ x6</li> <li>✿ x7</li> <li>✿ x9</li> <li>✿ x11</li> <li>✿ x12</li> <li>✿ ÷ facts for x6</li> <li>✿ ÷ facts for x7</li> <li>✿ ÷ facts for x9</li> <li>✿ ÷ facts for x11</li> <li>✿ ÷ facts for x12</li> <li>✿ All multiplication tables up to 12 x12 should be known by the end of Y4</li> <li>✿ x25</li> <li>✿ x100</li> </ul>	<ul style="list-style-type: none"> <li>✿ Read Roman Numerals to 100</li> <li>✿ Know the number of weeks in a year</li> <li>✿ Know:               <ul style="list-style-type: none"> <li>○ m in km</li> <li>○ cm in m</li> <li>○ 90° in a right angle</li> </ul> </li> </ul>

# SUMMARY OF KIRFs (Key Instant Recall Facts): YEAR 5

COUNTING & PLACE VALUE	NUMBER BONDS	ADDITION & SUBTRACTION
<ul style="list-style-type: none"> <li>✿ Count forwards and backwards from any given number, in any steps, crossing boundaries and into negative numbers</li> <li>✿ Count forwards and backwards in steps of powers of 10 for any given number up to 1 000 000</li> <li>✿ Count forwards and backwards through 0 with positive and negative numbers</li> <li>✿ Understand the value of HTh, TTh, Th, H, T &amp; Ones</li> </ul>	<ul style="list-style-type: none"> <li>✿ Know all addition and subtraction facts for decimals that total 1 (one DP)</li> <li>✿ Know all addition and subtraction facts for decimals that total 10 (one DP)</li> <li>✿ Find all the factor pairs of a number</li> </ul>	<ul style="list-style-type: none"> <li>✿ Add and subtract numbers mentally with increasingly large numbers</li> </ul>
DOUBLING & HALVING	MULTIPLICATION & DIVISION FACTS	MEASURES
<ul style="list-style-type: none"> <li>✿ Know doubles and halves of all whole numbers to 100</li> <li>✿ Know doubles and halves of all multiples of 10 to 1000</li> <li>✿ Know doubles and halves of all multiples of 100 to 10,000</li> <li>✿ Know the doubles and halves of all two-digit numbers</li> </ul>	<ul style="list-style-type: none"> <li>✿ Continue to rehearse all multiplication tables up to 12 x 12 and division facts</li> <li>✿ Know and apply tests of divisibility: x2, x3, x5, x9, x10</li> <li>✿ Recall prime numbers up to 19</li> <li>✿ Recognise and use square numbers and cube numbers, and the notation for squared <sup>2</sup> and cubed <sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>✿ Read Roman Numerals to 1000</li> <li>✿ Know:               <ul style="list-style-type: none"> <li>○ mm in cm</li> <li>○ ml in a l</li> <li>○ g in a kg</li> <li>○ angles of a triangle</li> <li>○ angles at a point</li> </ul> </li> </ul>

# SUMMARY OF KIRFs (Key Instant Recall Facts): YEAR 6

COUNTING & PLACE VALUE	NUMBER BONDS	ADDITION & SUBTRACTION
<ul style="list-style-type: none"> <li>Count forwards and backwards from any given number, in any steps, crossing boundaries and into negative numbers</li> <li>Know the decimal and percentage equivalents of the fractions <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{3}{4}</math>, <math>\frac{1}{3}</math>, <math>\frac{2}{3}</math>, tenths and fifths</li> <li>Calculate mentally using brackets</li> <li>Understand the value of M, HTh, TTh, Th, H, T &amp; Ones</li> </ul>	<ul style="list-style-type: none"> <li>Understand the = sign in balancing equations</li> <li>Use and understand &lt; and &gt; signs</li> <li>Know the addition and subtraction facts for two place decimal complements of 1</li> <li>Find patterns within number bonds to 1 (two DP)</li> <li>Link two decimal place number bonds to 1, to number bonds to 100</li> <li>Know the addition and subtraction facts for three place decimal complements of 1</li> <li>Find patterns within number bonds to 1 (three DP)</li> <li>Link three decimal place number bonds to 1, to number bonds to 100</li> </ul>	<ul style="list-style-type: none"> <li>Perform mental calculations, including with mixed operations and large numbers</li> </ul>
DOUBLING & HALVING	MULTIPLICATION & DIVISION FACTS	MEASURES
<ul style="list-style-type: none"> <li>Know doubles and halves of one digit decimals</li> <li>Know doubles and halves of two digit decimals</li> <li>Know the doubles and halves of all multiples of 10 to 10,000</li> <li>Know the doubles and halves of all multiples of 1000 to 100,000</li> </ul>	<ul style="list-style-type: none"> <li>Continue to rehearse all multiplication tables up to 12 x 12 and division facts</li> <li>Know and apply tests of divisibility: x4, x6, x8</li> <li>Know all square numbers to 12 x 12</li> <li>Know all square roots to 10 x 10</li> <li>Know the square roots to 15 x 15</li> <li>Know all prime numbers within 50</li> <li>Know the prime numbers within 100</li> </ul>	<ul style="list-style-type: none"> <li>Know angles on a straight line</li> <li>Illustrate and name parts of a circle, including radius, diameter and circumference and know that the diameter is twice the radius</li> </ul>