KIRFs – Key Instant Recall Facts

KIRFs are the *'Key Instant Recall Facts'* that children need to secure during their primary years. They include facts such as number bonds and times tables. They are particularly useful when calculating, adding, subtracting, multiplying and dividing but also underpin many other areas of mathematics.

For example, in order to find equivalent fractions in Year 6, children need to be able to rapidly recall their knowledge of common multiples (numbers in particular times tables).

When children have quick access to a bank of facts, which incur little cost to working memory, they have more capacity to think about more complex problems that draw on these facts.

We have noticed that without regular rehearsal, these facts are forgotten so it is essential they are practised regularly and embedded in children's long-term memory so they can be recalled quickly and accurately.

Each half term	Year 1	Year 2
1	Reviewing numbers to 5 and **learning number bonds to 5**	Review numbers within 10. Subitise numbers fluently. Explore numbers within the number system in a linear way. **Develop fluent recall of addition and subtraction facts within 10.**
2	**Learn number bonds to 10 (addition and subtraction facts)** Explore even numbers can be made from doubles. Review one more/less than a number within 10.	Review odd and even numbers. Use inequality symbols to compare numbers within 10. Develop the language or greater than and less than. **Learn multiplication and division facts for 2 times tables**
3	Explore the composition of the numbers 7 and 9. Explore odd and even numbers. Explore 2 more and 2 less.	Review composition of numbers to 20. Add 3 addends. **Learn multiplication and division facts for 10 times tables**
4	Develop language or part, part, whole. Explore the concept of; first, next, then. **Count forwards and backwards in steps of 2, 5 and 10**	Apply known facts to other problems i.e. 5 + 2 = 7, 15 + 2 = 17, 25 + 2 = 27 etc… **Learn multiplication and division facts for 5 times tables**
5	Explore number 11- 19 and compare number within 20. **Explore numbers to 20 and where they sit in the number system – find missing numbers on a number line.**	**Explore numbers to 100, thinking about where they are in relation to the next or previous 10.** Explore inequalities further using examples such as; 5+3 = 6+ 2, 3 + 6 > 3 + 5 etc… Add and subtract over 10s boundary by making 10 first.
6	Explore addition and subtraction to previously taught concepts. **Learn number facts within 20 (addition and subtraction facts)**	Review the above. **Know doubles and halves of even numbers to 20.** **Know all addition and subtraction facts for multiples of 10 to 100.**

Each half term	Year 3	Year 4
1	Review key facts from year 2, including recall of addition and subtraction facts to numbers within 20. Counting in 10s, 2s and 5s.	Rehearse 2, 3, 4, 5, 8 and 10 times tables and corresponding number facts focussing a week on each.
2	**Number facts to 100. Numbers bonds to 100 using multiples of 10.** **Learn 2, 5 and 10 x tables in and out of order and corresponding division facts.**	**Learn the 6 times tables and corresponding division facts by linking facts to the 3 times tables.** **Learn the 12 times tables and corresponding division facts by linking facts of the 6 times tables.** *continue reviewing the other times tables
3	**Learn the number patterns of 3s.** Rehearse 2, 5 and 10 times tables.	**Learn the 7 x 9, 9 x 9, 11 x 9 (9 times tables.) and corresponding division facts** **Learn the facts for 11 x 11 and 7 x 11 and 7 x 7 and corresponding division facts**
4	**Rehearse the 2 times tables and corresponding division facts and link to the 4 times tables.** Continue to rehearse the 2, 5, 10 and 3 times tables in and out of order.	Rehearse unknown facts and rehearse all to ensure that recall is fast.
5	**Learn the 8 times tables and corresponding division facts by linking the facts to the 4 times tables.** Rehearse mixed times tables of 2, 3, 4, 5 and 10 times tables.	
6	**Number bonds to 100. Use additive reasoning to find pairs of numbers that equal 100.**	**Know decimal number bonds to 1.**

*When rehearsing times tables, thinking about number bonds to the next 10/100

Each half term	Year 5	Year 6
1	Consolidate multiplication and division facts for up to 12 x 12	Derive multiplication and division facts using multiples of 10 and decimal numbers e.g. 50 x 7 = 350 8 x 0.7 = 5.6
2	**Know prime numbers within 100.** **Recognise square and cube numbers within 100.**	
3	**Multiply and divide integers by 10, 100 and 1000.**	Multiply and divide **decimal numbers** by 10 , 100 and 1000.
4	**Scaling – multiples of 10 x tables (20 x, 40 x 80 x etc…)**	Know **square roots** or square numbers to 15 x 15
5	Know decimal number bonds to 1 **and 10**	Know all previous number bonds including decimal that total 1 or 10 (*using two decimal places)
6	**Know the decimal and percentage equivalents of fractions; ½, ¼, ¾, 1/3, 2/3, tenths and fifths.**	Know doubles and halves of all 2 digit number including 2 digit decimals. i.e. half of 0.3 = 0.15 and double 0.3 = 0.6