



Willoughton Primary School

The Cliff Federation Fluency Progression Map

Fluent computational skills are dependent on accurate and rapid recall of basic number bonds to 20 and times-tables facts. Research has shown that spending a short time every day on these basic facts quickly leads to improved fluency.

Non-negotiables

The Cliff Federation commits to teaching fluency

- To build in 5-10 minutes (minimum) daily at the start of each Maths lesson
- To understand the relationship between addition and subtraction and multiplication and division facts (inverse).
- To explain commutativity between the 4 operations e.g. addition and multiplication.

This document will breakdown what fluency areas are to be taught in each year group.

Reception

Knowledge/Focus	How to teach/practice	Resources/Websites to use
Subitising Composition of numbers 3, 4, 5, 6, 7, 8, 9 and 10. To count with one-to-one correspondence. To count to 20. To understand the relationship between one more and one less. To understand 5 and a bit for numbers to 10. To explore double as 2 equal parts. To sort numbers into odd and even. Recall of number bonds to 5.	Songs/rhymes Counting on fingers Stories Mastering number programme	Mastering Number programme Jack Hartmann videos - https://www.youtube.com/watch?v=0TgLtF3PMOc Nrich - https://nrich.maths.org/early-years-foundation-stage-activities-0 Cubes/numicon

Year 1

Knowledge/Focus	How to teach/practice	Resources/Websites to use
To count forwards and backwards to 100. Composition of numbers – 5 and a bit and 10 and a bit (number bonds). To identify one more and one less. To recall even numbers 2 equal parts, double or two odd numbers. To recall odd numbers as even + odd. To recall doubles of numbers to double 10. To recall halves of even numbers to 20. To count forwards and backwards in 2s, 5s and 10s.	Quick write on whiteboards Counting out loud Skip counting Games Missing number calculations Numberlines	Mastering Number Programme Jack Hartmann videos - https://www.youtube.com/watch?v=0TgLtF3PMOc Numicon Puzzles Songs 10 frames/ double sided counters Number lines Flash fingers/bunny fingers Supermovers - https://www.bbc.co.uk/teach/topics/ckrp5jy9vd5t Nrich - https://nrich.maths.org/number-7

Year 2

Strand	Knowledge/Focus	How to teach/practice	Resources/Websites to use
NPV/NF	To count forwards and backwards to 100. Counting forwards and backwards in 2s, 5s and 10s (skip counting). To count forwards and backwards from any given number in 10s. To recognise place value of digits in a number (2-digit). To recall number bonds to 10 and 20. To use number bonds to 100. To recall known near doubles to 10.	Quick write on whiteboards Counting out loud Skip counting Games Missing number calculations	Mastering Number Programme Jack Hartmann videos - https://www.youtube.com/watch?v=0TgLtF3PMOc Supermovers - Supermovers - https://www.bbc.co.uk/teach/topics/ckrp5jy9vd5t Nrich - https://nrich.maths.org/number-7

A/S	To add and subtract across 10.	Numberlines	Numicon Puzzles Songs 10 frames/ double sided counters Number lines Flash fingers/bunny fingers
M/D	To recall multiplication and related division facts for 2s, 5s and 10s. To know doubles and halves of 2-digit numbers.		Daily 10 - https://www.topmarks.co.uk/maths-games/daily10 Hit the button - https://www.topmarks.co.uk/maths-games/hit-the-button Counting stick TTRS – 2s, 5s, 10s Supermovers - https://www.bbc.co.uk/teach/topics/ckrp5jy9vd5t

Year 3

Strand	Knowledge/Focus	How to teach/practice	Resources/Websites to use
NPV/NF	To know number bonds to 100. To count in 50s, 25s, 20s and 10s up to 100. Secure addition and subtraction facts that bridge 10 (e.g. $7+5=5+5+2=12$) Revise multiplication facts for 2s, 5s, and 10s. To recall known additive and multiplicative number facts (scale by 10). Compliments of fractions to a whole with the same denominator ($3/7+4/7=1$).	Quick write on whiteboards Counting out loud Skip counting Games Missing number calculations	Nrich - https://nrich.maths.org/number-7

	Compliments to 60 (time). To recognise place value of digits in a number (3-digit).	Numberlines	
A/S	*Linked to number facts*		Dice games around addition and subtraction
M/D	To know multiplication facts for 2s, 4s, 5s, 8s and 10s. To know doubles and halves of multiples of 10 and 100. To know multiplication facts for 3s.		Hit the button - https://www.topmarks.co.uk/maths-games/hit-the-button Daily 10 - https://www.topmarks.co.uk/maths-games/daily10 Dice games around multiplication Counting stick TTRS Times table songs – 3s - https://www.youtube.com/watch?v=RZ11DlySbJ0 4s - https://www.youtube.com/watch?v=8QU_E0u-tP4 8s - https://www.youtube.com/watch?v=z_BJjR9rdwA
M	To recall number of days in months and years (inc. leap year).		Songs/rhymes
F	To count forwards and backwards in tenths.		

Year 4

Strand	Knowledge/Focus	How to teach/practice	Resources/Websites to use
NPV/NF	To know number bonds to 1000.		Nrich - https://nrich.maths.org/number-7

	To count in 500s, 250s, 200s and 100s up to 1000. To recall known additive and multiplicative number facts (scale by 100). Compliments of tenths and hundredths to make 1 ($0.4+0.6=1$ or $0.37+0.63=1$). To use knowledge of the number system to identify the midpoint when rounding (up to 1000). To recognise place value of digits in a number (4-digit).	Quick write on whiteboards Counting out loud Skip counting Games Missing number calculations	
A/S	*Linked to number facts*	Numberlines	Dice games around addition and subtraction
M/D	To revise multiplication facts for 2s, 3s, 4s, 5s, 8s and 10s. To know doubles and halves of multiples of 10, 100 and 1000. To know multiplication facts 6s, 7s, 9s, 11s and 12s.		Hit the button - https://www.topmarks.co.uk/maths-games/hit-the-button Daily 10 - https://www.topmarks.co.uk/maths-games/daily10 Dice games around multiplication Counting stick TTRS Times table songs – 3s - https://www.youtube.com/watch?v=9XzfQUXqiYY 6s - https://www.youtube.com/watch?v=e7rYbk9PNuM 7s - https://www.youtube.com/watch?v=ioE9AW6IXN4 9s – https://www.youtube.com/watch?v=7yzm-y18W4w

			11s - https://www.youtube.com/watch?v=iR5MTjuuziU 12s - https://www.youtube.com/watch?v=YzNIVOR6OOK
F	To recognise the decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{10}$ and $\frac{1}{100}$. To count forwards and backwards in tenths.		https://www.topmarks.co.uk/maths-games/7-11-years/fractions-and-decimals

Year 5

Strand	Knowledge/Focus	How to teach/practice	Resources/Websites to use
NPV/NF	To recall known additive and multiplicative number facts (scale by 0.1 and 0.01 including relationship with measure $1\text{m} = 100\text{cm}$). To use knowledge of the number system when rounding (decimals). To count forwards and backwards through negative numbers. To count in 0.5, 0.25, 0.2 and 0.1 up to 1. To recall known additive and multiplicative number facts (scale by 1000). To recognise place value of digits in a number (5-digit).	Quick write on whiteboards Counting out loud Skip counting Games Missing number calculations Numberlines	Nrich - https://nrich.maths.org/number-7
A/S	*Linked to number facts*		Dice games around addition and subtraction

M/D	To recall multiplication and related division facts up to 12x12 (factors and multiples). To identify prime numbers to 20. To recall squared and cubed numbers up to 12x12. To use known facts to multiply and divide by 10, 100 and 1000.		Hit the button - https://www.topmarks.co.uk/maths-games/hit-the-button Daily 10 - https://www.topmarks.co.uk/maths-games/daily10 Dice games around multiplication Counting stick TTRS Bingo games Countdown game Times table songs – 3s - https://www.youtube.com/watch?v=9XzfQUXqiYY 6s - https://www.youtube.com/watch?v=e7rYbk9PNuM 7s - https://www.youtube.com/watch?v=ioE9AW6IXN4 9s – https://www.youtube.com/watch?v=7yzm-y18W4w 11s - https://www.youtube.com/watch?v=iR5MTjuuziU 12s - https://www.youtube.com/watch?v=YzNIVOR6OOk
F/D/P	To find complements that sum to make 1, with numbers to two or three decimal places. Use knowledge of multiplications to find, compare, add and subtract equivalent fractions.		Countdown game https://www.topmarks.co.uk/maths-games/7-11-years/fractions-and-decimals

	To recall decimal equivalents for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$ and multiples for these fractions.		
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Year 6

Strand	Knowledge/Focus	How to teach/practice	Resources/Websites to use
NPV/NF	To use knowledge of the number system when rounding (up to 10,000,000). To count forwards and backwards through negative numbers. To count in 0.05, 0.25, 0.02 and 0.01 up to 1 million. To rapid recall number facts and their relationships including inverse. To recognise place value of any given digit in a number.	Quick write on whiteboards Counting out loud Skip counting Games Missing number calculations	Nrich - https://nrich.maths.org/number-7
A/S	*Linked to number facts* To be able to use common ratio such as 1:4, 1:5 and 1:10.	Numberlines	Dice games around addition and subtraction
M/D	To recall multiplication and related division facts up to 12x12 (factors and multiples). To identify prime numbers to 50. To recall squared and cubed numbers up to 12x12. To use known facts to multiply and divide by 10, 100 and 1000.		Hit the button - https://www.topmarks.co.uk/maths-games/hit-the-button Daily 10 - https://www.topmarks.co.uk/maths-games/daily10 Dice games around multiplication Counting stick TTRS Bingo games Countdown game

			Times table songs – 3s - https://www.youtube.com/watch?v=9XzfQUXqiYY 6s - https://www.youtube.com/watch?v=e7rYbk9PNuM 7s - https://www.youtube.com/watch?v=ioE9AW6IXN4 9s – https://www.youtube.com/watch?v=7yzm-y18W4w 11s - https://www.youtube.com/watch?v=iR5MTjuuziU 12s - https://www.youtube.com/watch?v=YzNIVOR6OOK
F/D/P	Use knowledge of multiplications to find, compare, add and subtract equivalent fractions. To use knowledge of doubling and halving to find 5% or 20%. To confidently and mentally convert between fractions, decimals and percentages. To apply knowledge of equivalent fractions and common factors to simplify.		Countdown game https://www.topmarks.co.uk/maths-games/7-11-years/fractions-and-decimals