Progression in Fluency

Fluency in number is key to accessing all areas of Mathematics confidently and securely. Knowing number facts 'off by heart' frees up space in a child's working memory when they complete more complex calculations and allows children to reason and problem solve with greater depth, which alongside fluency, are the key elements of the Mathematics curriculum. We have devised a 'Progression in Number Facts' scheme that children can systematically work through to ensure they are fluent and confident in their basic addition skills.

- Children will be given a set of number facts to learn over a half term depending on their previous 'phase'.
- They should practise these at home wherever possible and it will form part of their daily maths lessons e.g. arithmetic starters.
- The aim is to be able to recall each fact in the set within 3 seconds.
- If children successfully recall all the facts successfully at the end of the six weeks, they will receive a certificate and the next set of facts to learn.
- Children will not be given a new set of facts if they still require practise on the current phase, instead they will practise that particular phase until the next assessment point.
- Children should aim to have all of the facts completed by the end of Year 2; however, it may be that they are completed further up the school so each child is secure and fluent with basic addition by the time they leave our school.
- At the point of implementation children in KS2 will be given these to ensure they are secure.

+	0	1	2	3	4	5	6	7	8	9	10
0	0+0	0+1	0+2	0+3	0+4	0+5	0+6	0+7	0+8	0+9	0+10
1	1+0	1+1	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+9	1+10
2	2+0	2+1	2+2	2+3	2+4	2+5	2+6	2+7	2+8	2+9	2+10
3	3+0	3+1	3+2	3+3	3+4	3+5	3+6	3+7	3+8	3+9	3+10
4	4+0	4+1	4+2	4+3	4+4	4+5	4+6	4+7	4+8	4+9	4+10
5	5+0	5+1	5+2	5+3	5+4	5+5	5+6	5+7	5+8	5+9	5+10
6	6+0	6+1	6+2	6+3	6+4	6+5	6+6	6+7	6+8	6+9	6+10
7	7+0	7+1	7+2	7+3	7+4	7+5	7+6	7+7	7+8	7+9	7+10
8	8+0	8+1	8+2	8+3	8+4	8+5	8+6	8+7	8+8	8+9	8+10
9	9+0	9+1	9+2	9+3	9+4	9+5	9+6	9+7	9+8	9+9	9+10
10	10+0	10+1	10+2	10+3	10+4	10+5	10+6	10+7	10+8	10+9	10+10

Adding 1

Doubles

Adding 2

Bonds to 10

Adding 10

Adding 0

Near doubles

Bridging/ compensating

Name: _____

Date phase began: _____

Approximate assessment date: _____

Phase 1

Adding 1

Facts to learn:

2 + 1	1 + 2
3 + 1	1 + 3
4 + 1	1 + 4
5 + 1	1 + 5
6 + 1	1 + 6
7 + 1	1 + 7
8 + 1	1 + 8

It is important for children to look at these in order to learn the pattern and make connections. They should also be able to know them out of sequence and they will be tested on them in a random order.

Name: _____

Date phase began: _____

Approximate assessment date: _____

Phase 2

Doubles to 10

Facts to learn:

1 + 1 (double 1)

2 + 2 (double 2)

3 + 3 (double 3)

4 + 4 (double 4)

5 + 5 (double 5)

It is important for children to look at these in order to learn the pattern and make connections. They should also be able to know them out of sequence and they will be tested on them in a random order.

Name: _____

Date phase began: _____

Approximate assessment date: _____

Phase 3

Adding 2

Facts to learn:

1 + 2	2 + 1
2 + 2	2 + 2
3 + 2	2 + 3
4 + 2	2 + 4
5 + 2	2 + 5
6 + 2	2 + 6
7 + 2	2 + 7
8 + 2	2 + 8
9 + 2	2 + 9

It is important for children to look at these in order to learn the pattern and make connections. They should also be able to know them out of sequence and they will be tested on them in a random order.

Name: _____

Date phase began: _____

Approximate assessment date: _____

Phase 4

Bonds to 10

Note: This phase will be assessed by 'missing number' calculations, e.g. 6 + □ = 10 etc.

Facts to learn:

0 + 10
1 + 9
2 + 8
3 + 7
4 + 6
5 + 5
6 + 4
7 + 3
8 + 2
9 + 1
10 + 0

It is important for children to look at these in order to learn the pattern and make connections. They should also be able to know them out of sequence and they will be tested on them in a random order.

Name: _____

Date phase began: _____

Approximate assessment date: _____

Phase 5

Doubles to 20

Facts to learn:

6 + 6 (double 6)

7 + 7 (double 7)

8 + 8 (double 8)

9 + 9 (double 9)

10 + 10 (double 10)

It is important for children to look at these in order to learn the pattern and make connections. They should also be able to know them out of sequence and they will be tested on them in a random order.

Name: _____

Date phase began: _____

Approximate assessment date: _____

Phase 6

Adding 10

Facts to learn:

1 + 10	10 + 1
2 + 10	10 + 2
3 + 10	10 + 3
4 + 10	10 + 4
5 + 10	10 + 5
6 + 10	10 + 6
7 + 10	10 + 7
8 + 10	10 + 8
9 + 10	10 + 9
10 + 10	

It is important for children to look at these in order to learn the pattern and make connections. They should also be able to know them out of sequence and they will be tested on them in a random order.

Name: _____

Date phase began: _____

Approximate assessment date: _____

Phase 7

Adding 0

This may seem a relatively easy phase to master quickly however it is essential children can recall them instantly.

Facts to learn:

1 + 0	0 + 1
2 + 0	0 + 2
3 + 0	0 + 3
4 + 0	0 + 4
5 + 0	0 + 5
6 + 0	0 + 6
7 + 0	0 + 7
8 + 0	0 + 8
9 + 0	0 + 9
10 + 0	0 + 10

It is important for children to look at these in order to learn the pattern and make connections. They should also be able to know them out of sequence and they will be tested on them in a random order.

Name: _____

Date phase began: _____

Approximate assessment date: _____

Phase 8

Near doubles

Note: Children should be encouraged to build on their knowledge of doubling numbers to help with these calculations i.e 3 + 3 = 6, so 3 + 4 must equal 7 because there is one more

Facts to learn:

2 + 1	1 + 2
3 + 2	2 + 3
4 + 3	3 + 4
5 + 4	4 + 5
6 + 5	5 + 6
7 + 6	6 + 7
8 + 7	7 + 8
9 + 8	8 + 9
10 + 9	9 + 10

It is important for children to look at these in order to learn the pattern and make connections. They should also be able to know them out of sequence and they will be tested on them in a random order.

Name: _____

Date phase began: _____

Approximate assessment date: _____

Phase 9

Bridging and Compensating

Note: Children should be encouraged to 'split up' one of the numbers in the calculation to help them reach 10, and then add what is left. E.g. 7 + 4 can be learnt as 7 + 3 = 10, plus 1 more to make 11.

Facts to learn:

8 + 3	3 + 8
9 + 3	3 + 9
7 + 4	4 + 7
8 + 4	4 + 8
9 + 4	4 + 9
7 + 5	5 + 7
8 + 5	5 + 8
8 + 6	6 + 8
9 + 5	5 + 9
9 + 6	6 + 9

It is important for children to look at these in order to learn the pattern and make connections. They should also be able to know them out of sequence and they will be tested on them in a random order.