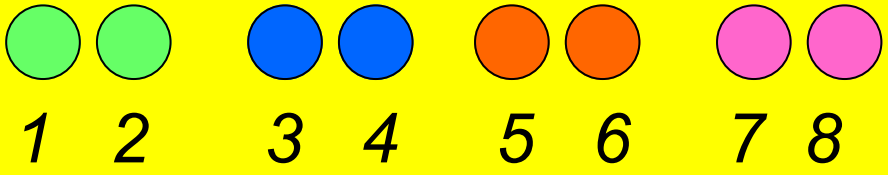
Early Level 1: Stage 2—3
Counting All

I can skip count forwards and backwards to 20 in twos and fives.

Multiplication & Division

I can solve simple multiplication and division problems by counting all the objects.

e.g. 4 groups of 2…



Reference: Ministry of Education (2008). The Number Framework—Book 1.
Created by Julie Roberts, 2011.

Level 1—Stage 4 Advanced Counting

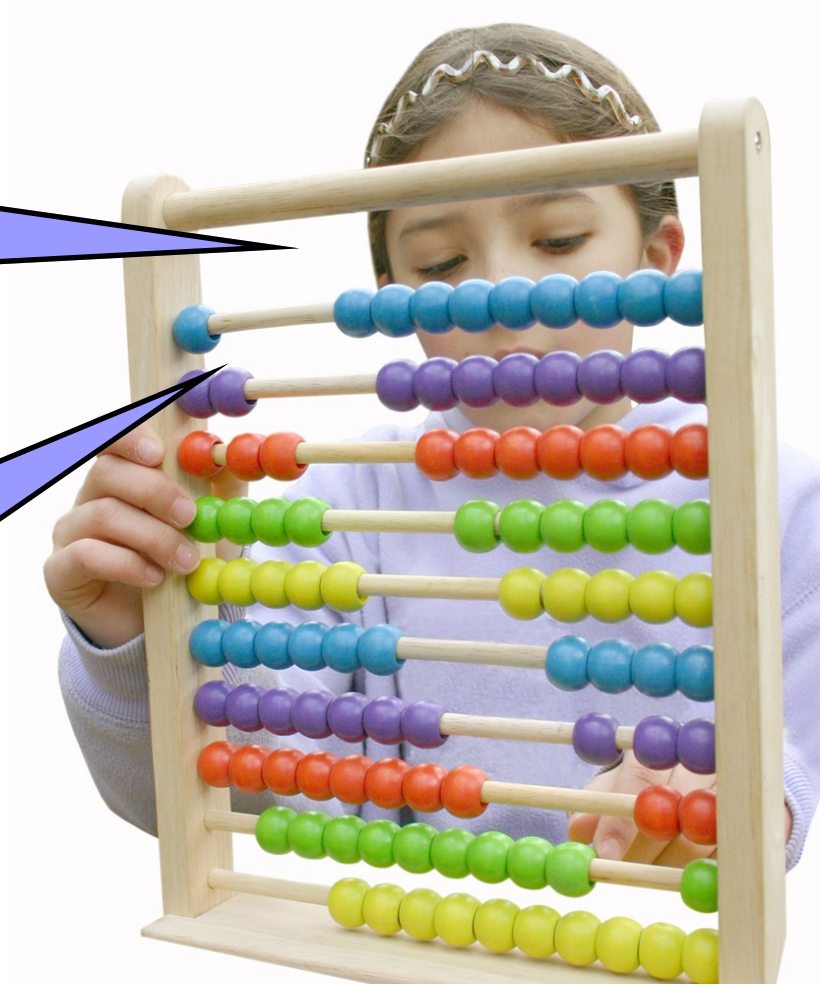
Multiplication & Division

I can skip count
forwards and backwards to 100
in twos, fives and tens.

I know doubles and matching
halves to 20.

I can solve multiplication
problems using skip counting.
e.g. 4 x 2 as **2, 4, 6, 8**

I can solve division
problems using: skip counting,
fair sharing, using my doubles or
halves to 20.



Reference: Ministry of Education (2008). The Number Framework—Book 1.
Created by Julie Roberts, 2011.

Level 2—Stage 5 Early Additive

Multiplication & Division

I can solve multiplication and division problems using repeated addition or known addition facts.

eg. 4 x 6 = (6 + 6) + (6 + 6)
= 12 + 12
= 24

I can solve multiplication and division problems using known simple multiplication facts or repeated halving.

eg. 20 ÷ 4 = ☐
1/2 of 20 = 10 and 1/2 of 10 = 5
so 4 x 5 = 20

I know x2, x5 and x10 multiplication facts and matching division facts.

Reference: Ministry of Education (2008). The Number Framework—Book 1.
Created by Julie Roberts, 2011.

Level 3—Stage 6 Advanced Additive Multiplication & Division

I can solve multiplication and division problems by using known facts and mental strategies to derive the answers.

Place value
13 x 5 = (10 x 5) + (3 x 5) = 65

Rounding and compensating
3 x 18 = 3 x 20—6

Doubling and halving
4 x 8 = 2 x 16 = 32

Reversibility
63 ÷ 9 as 9 x ☐ = 63

Using known facts
3 x 6 so 2 x 6 + 6 = 18

Doubling
4 x 7 as 2 x 7 = 14
so 4 x 7 = 28

Halving
36 ÷ 4 as 1/2 of 36 = 18
and 1/2 of 18 = 9

I know multiplication facts to x10 tables and some matching division facts.

I know multiplication facts with tens, hundreds and thousands.

Reference: Ministry of Education (2008). The Number Framework—Book 1.
Created by Julie Roberts, 2011.

Level 4—Stage 7
Advanced Multiplicative

Multiplication & Division

I can choose appropriately from a range of mental strategies to solve multiplication and division problems.

Possible strategies for 24 x 6

Place value partitioning
(20 x 6) + (4 x 6)

Rounding and compensating
25 x 6—6

Doubling and halving
24 x 6 = 12 x 12

Vertical Algorithm
I can explain the place value partitioning involved

Possible strategies for 201 ÷ 3 by using reversibility

Place value partitioning
(3 x 60) + (3 x 7) so 67 cans

Rounding and compensating
(3 x 70) — (3 x 3) so 67 cans

Divisibility
33 threes in 100 with 1 left over so 33 + 33 + 1 = 67 cans

Vertical Algorithm
I can explain the place value partitioning involved

I know factors of numbers to 100 including prime numbers.

I know square numbers to 100 and the responding square roots.

I know division facts up to x 10 tables.

I know common multiples of numbers to 10.

I know divisibility rules for 2, 3, 5, 9, 10

Reference: Ministry of Education (2008). The Number Framework—Book 1.
Created by Julie Roberts, 2011.

Level 5—Stage 8
Advanced Proportional

Multiplication & Division

I can choose appropriately from a range of mental strategies to solve problems that involve multiplication of fractions and decimals.

For example;

3.6 x 0.75 = 3/4 x 3.6 = 2.7
(Conversion and commutativity)

I can choose appropriately from a range of mental strategies to solve division problems with decimals.

For example;

7.2 ÷ 0.4 as 7.2 ÷ 0.8 = 9,
so 7.2 ÷ 0.4 = 18
(Doubling and halving with place value)

I know simple powers of numbers to 10.

I know fractions—decimal—percentage conversions for given fractions and decimals.

I know common factors of numbers to 100, including the highest common factor.

I know divisibility rules for 2, 3, 4, 5, 6, 8, and 10.

I know least common multiples of numbers to 10.

Reference: Ministry of Education (2008). The Number Framework—Book 1.
Created by Julie Roberts, 2011.