Saltford C of E Primary School – Progression in Division

| Year group	Objective	Method	Practical methods	Pictorial/written methods	Vocabulary	Mental recall
EYFS	Division as sharing – one for me, one for you… Division as grouping – how many groups of 3 can we make?	Practical / recorded using ICT (eg digital photos / pictures on IWB)	Concrete materials – counters, teddies etc… Real life situations - sharing out the milk, fruit, pencils. 	Drawings of problems Begin to record using marks they can explain 	Group, pairs, left over, share, equal, half/halve, same, count out, share out, left, left over	Chanting of counting in 2s
Y1	Consolidation of EYFS Solve one-step problems involving division in practical contexts Concept of division as both grouping and sharing Find simple fractions of objects, numbers and quantities in practical contexts.	Practical / recorded using ICT Informal written methods Horizontal recording	Objects, Multilink, Lego, beads, bead strings, whiteboards, role play. Sharing objects Grouping objects 	Pictorial representations 20÷2=10 Each person get 10 banan	As previous.	Consolidation of EYFS Chanting of counting in 2s, 5s and 10s
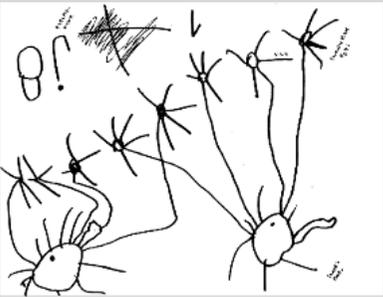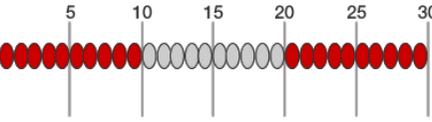
| Y2 | Consolidation of Y1

Recall and use division facts for the 2, 5 and 10 tables, including recognising odd and even numbers

Calculate mathematical statements for division within the multiplication tables and write them using the division (÷) and equals (=) signs

Know that division is not commutative i.e. cannot be done in any order.

Solve problems involving division, using materials, arrays, mental methods, and division facts, including problems in contexts

Recognise, find, name and write fractions 1/4, 1/3, 1/2 and 3/4 of a set of objects or quantity | Practical

Informal written methods

Horizontal recording | Number lines, hundred squares, multilink, counters, bead strings
$15 \div 3 = 5$
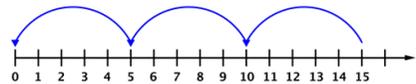
$6 \div 3 = 2$
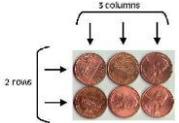
Find quarter of a quantity

 | Pictorial representations
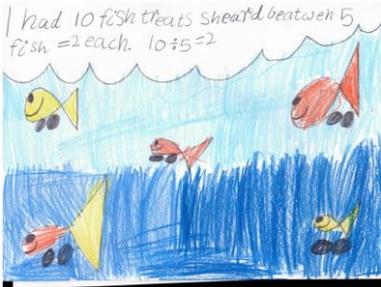
Repeated subtraction on a number line
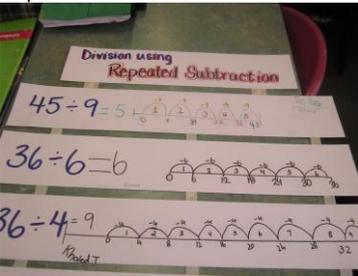
Horizontal recording
$16 \div 4 = 4$ | As previous.

Groups of, times smaller, shorter etc, repeated subtraction, array, row, column, halve share, share equally, one each, two each, three each… group in pairs, threes… tens, equal groups of, divide, divided by, divided into, left, left over | Know division facts for 2, 5 and 10 times tables |

| Y3 | Consolidation of Y2

Recall and use division facts for the 3, 4 and 8 multiplication tables

Write and calculate mathematical statements for division using the multiplication tables that they know using mental and progressing to formal written methods

Solve problems, including missing number problems, involving division, including positive integer scaling problems

Recognise that tenths arise from dividing one-digit numbers or quantities by 10 | Practical

Informal written methods

Horizontal recording

Formal written method | Number line, hundred square, tape measures, dienes, place value counters

Practical division using place value counters or dienes
63 ÷ 3 = 21
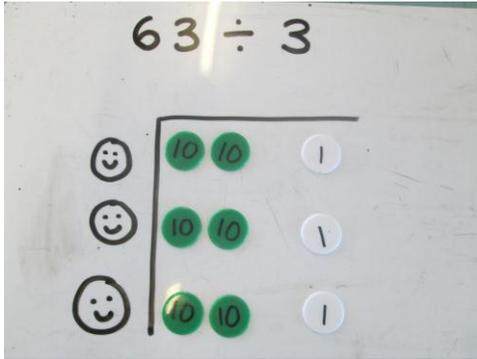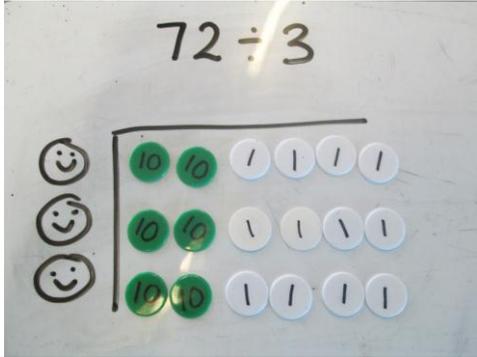
 | TU ÷ U

Horizontal recording

63 ÷ 3 = 21

Formal written method – short division (no, exchange, no remainders)
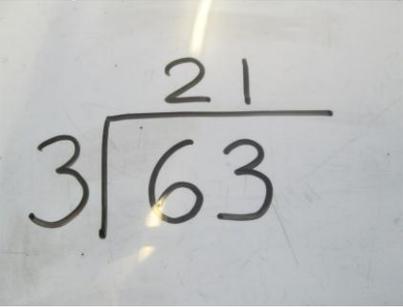
Formal written method – short division (with exchange, no remainders)
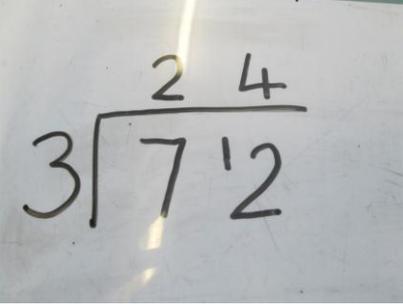
 | As previous.

Division, remainder, divisor, dividend, quotient | As previous with increasing fluency

Know division facts for 3, 4 and 8 multiplication tables |

| Y4 | Consolidation of Y3

Recall division facts for multiplication tables up to 12 × 12

Use place value and known and derived facts to divide mentally for example 600 ÷ 3 = 200 can be derived from 2 x 3 = 6

Practise to become fluent in the formal written method of short division with exact answers

Recognise that hundredths arise when dividing a one- or two-digit number by 100 and dividing by dividing tenths by 10

Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths

Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number eg 4/5 of 25 = 20 | Practical

Formal written method | Number line, hundred square, tape measures, dienes, place value counters
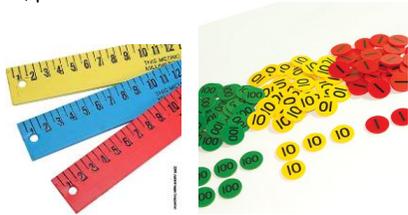
Practical division using place value counters or dienes
339 ÷ 3 = 113
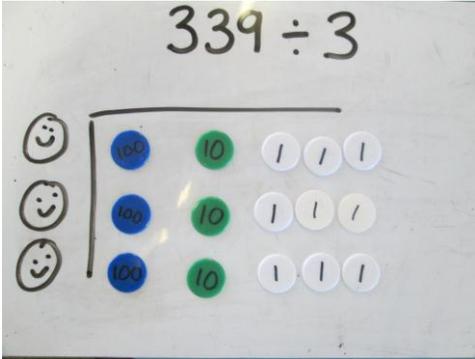
 | TU ÷ U, then HTU ÷ U

Formal written method – short division (no exchange, first without, then with remainders)
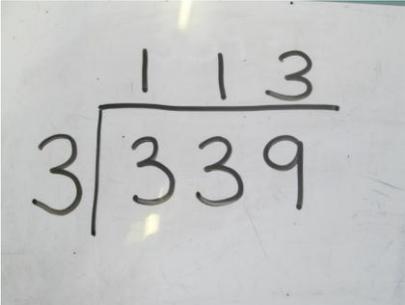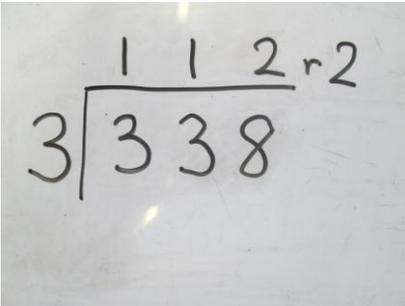
Formal written method – short division (with exchange, first without, then with remainders)
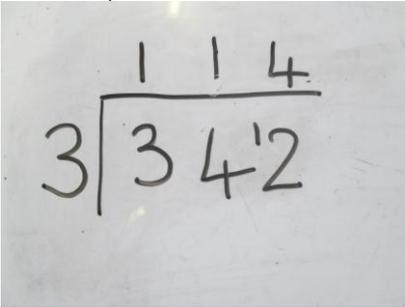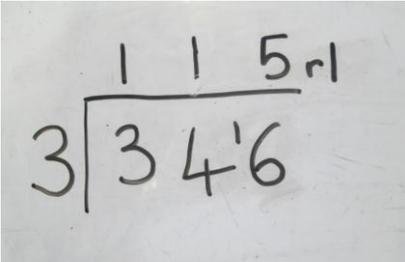
 | As previous.

Exchange, factor, inverse, divisible by | As previous with increasing fluency

Use know division facts to derive linked facts eg 600 ÷ 3 = 200 |

| Y5 | Consolidation of Y4

Multiply and divide numbers mentally, drawing upon known facts

Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context

Divide whole numbers and those involving decimals by 10, 100 and 1,000

Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers

Establish whether a number up to 100 is prime and recall prime numbers up to 19

Solve problems involving division, and a combination of all 4 operations, including understanding the meaning of the equals sign

Solve problems involving division, including scaling by simple fractions and problems involving simple rates

Interpret non-integer answers to division by expressing results in different ways according to the context, including with remainders, as fractions, as decimals or by rounding (for example, $98 \div 4 = 98/4 = 24$ r $2 = 24\,\tfrac{1}{2} = 24.5 \approx 25$). | Practical

Formal written method | Dienes, place value counters
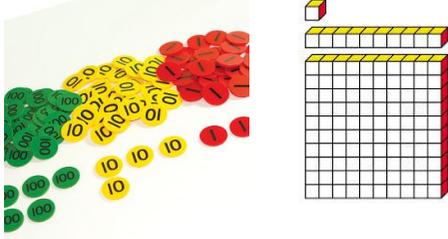
Practical division using place value counters or dienes
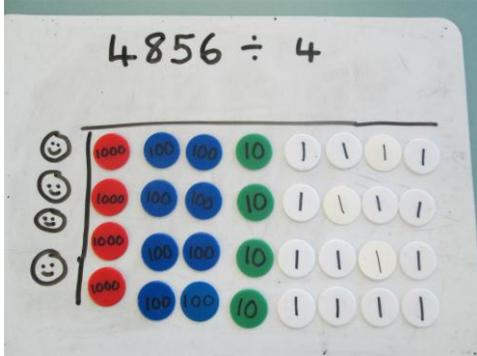
 | ThHTU ÷ U with and without remainders expressed as fractions and decimals
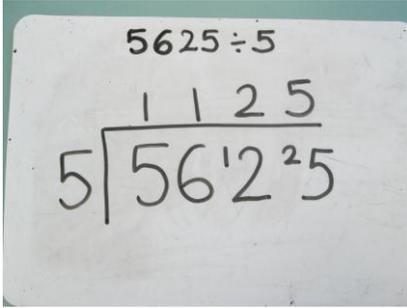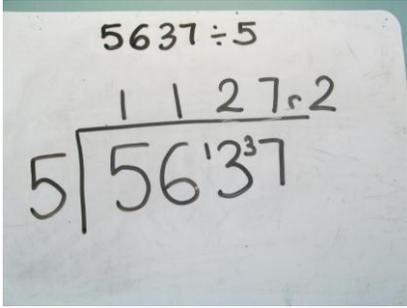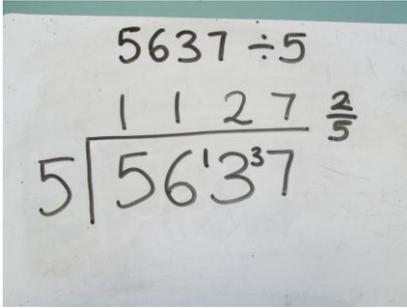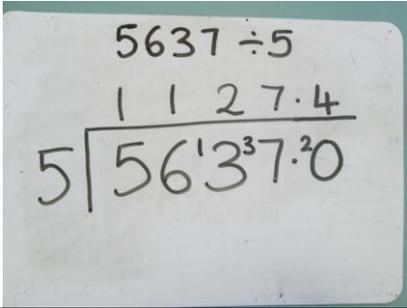
 | As previous.

Divisibility | As previous with increasing fluency

Divide whole numbers by 10, 100 and 1000 |

| Y6 | Consolidation of Y5

Application of all prior skills learnt to increase fluency

Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context

Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context

Use written division methods in cases where the answer has up to 2 decimal places

Divide proper fractions by whole numbers [for example, $1/3 \div 2 = 1/6$]

Associate a fraction with division and calculate decimal fraction equivalents [for example, $0.375 = 3/8$] | Practical

Informal written methods

Formal written method | Dienes, place value counters
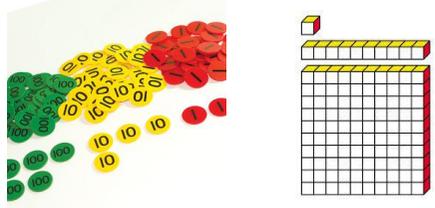
Practical division using place value counters or dienes
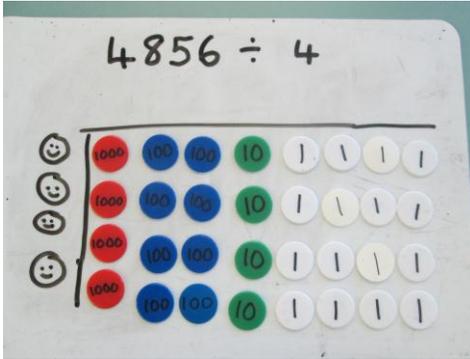
 | ThHTU ÷ TU with remainders expressed as fractions and decimals

Formal written method – long division
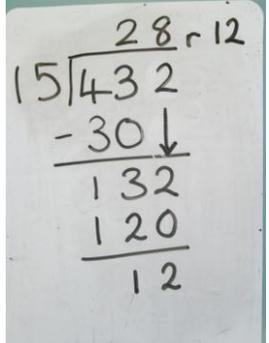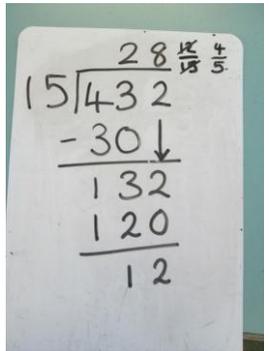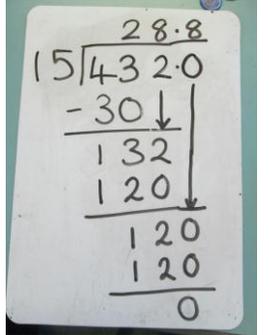
 | As previous. | As previous with increasing fluency |