

Henbury MATHS Journey: x and ÷



- count in multiples of twos, fives and tens
- solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

YEAR 1

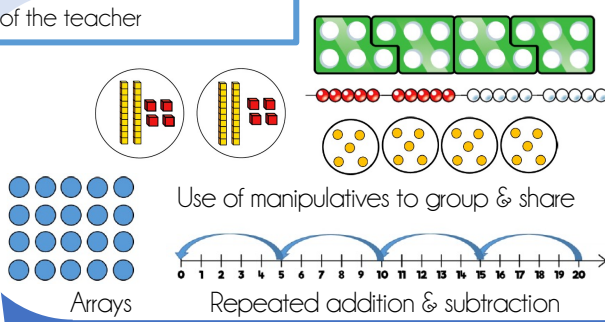
EYFS

divide
multiply
scaling
inverse

commutative
numbers can be multiplied
in any order

divisor multiple
in division, the number by
which another is divided

dividend
in division, the number that is
divided



- count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward
- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers

- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts

- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed evenly

- show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot

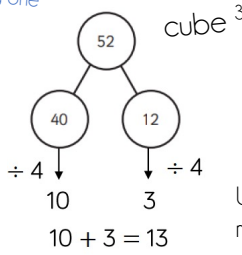
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs

- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

Key
Multiplication & Division Facts
Mental Calculation
Written Methods
Properties of Numbers
Inverse Operations, Estimating and Checking Answers
Problem Solving

factor
prime
quotient
the result of a division
product
the result of multiplying one number by another
partition
square 2
cube 3

VOCABULARY



- count from 0 in multiples of 4, 8, 50 and 100
- recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables

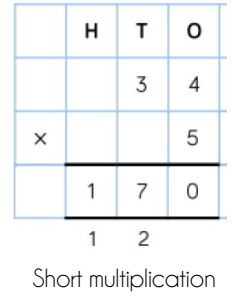
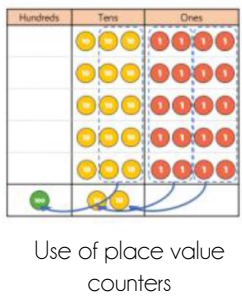
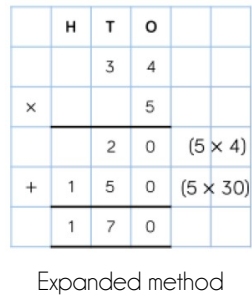
- count in multiples of 6, 7, 9, 25 and 1000
- recall multiplication and division facts for multiplication tables up to 12×12

- write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods

YEAR 3

- estimate the answer to a calculation and use inverse operations to check answers

- solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems



- use place value, known and derived facts to multiply and divide mentally, including:
 - multiplying by 0 and 1
 - dividing by 1
 - multiplying together three numbers

- multiply two-digit and three-digit numbers by a one-digit number using formal written layout (short multiplication)

- recognise and use factor pairs and commutativity in mental calculations

- estimate and use inverse operations to check answers to a calculation

YEAR 4

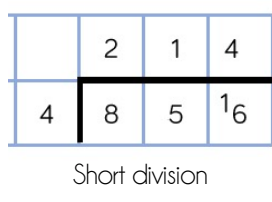
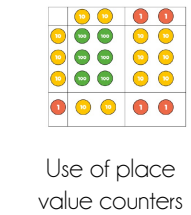
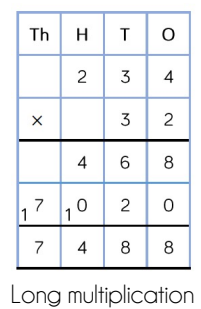
- perform mental calculations, including with mixed operations and large numbers

- multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
- divide numbers up to 4-digits by a two-digit whole number using the formal written method of short division
- divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division

- identify common factors, common multiples and prime numbers

- use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy

- solve problems involving addition, subtraction, multiplication and division



- solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems

		0	3	6	
1	2	4	3	2	
		-	3	6	0
			7	2	
			-	7	2
				0	

Long division

- $12 \times 1 = 12$
- $12 \times 2 = 24$
- $12 \times 3 = 36$
- $12 \times 4 = 48$
- $12 \times 5 = 60$
- $12 \times 6 = 72$
- $12 \times 7 = 84$
- $12 \times 8 = 96$
- $12 \times 9 = 108$
- $12 \times 10 = 120$

YEAR 6

YEAR 5

- multiply and divide numbers mentally drawing upon known facts
- multiply and divide whole numbers and those involving decimals by 10, 100 and 1000

- multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
- divide numbers up to 4 digits by a one-digit number using the formal written method of short division

- identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
- know and use the vocabulary of prime numbers, prime factors and composite numbers
- establish whether a number up to 100 is prime and recall prime numbers up to 19
- recognise and use square numbers and cube numbers

- solve problems involving all of the above and including scaling by simple fractions