Multiplication and Division, Length and Perimeter

Lesson sequence

Multiples of 10, Related calculations, reasoning about multiplication, multiply 2 x 1 digits with exchanging, link multiplication and division, divide 2 x 1 digit with exchange, flexible partitioning and with remainders.

Measure in metres, centimetres and millimetres, equivalent lengths, compare lengths, add lengths, subtract lengths, measure and calculate perimeter.

Vocabulary revision

- *Hundreds*
- *Tens*
- *Division*
- *Digit*
- *Multiple*
- *Pattern*
- *Partition*

- *Inverse*
- *Arrays*
- *Exchange*
- *Columns*
- *Commutative*
- *Partition*
- *Estimate*
- *Compliments*

Sticky learning

New Knowledge

- *To recall multiplication and division facts for the 3, 4 and 8 multiplication tables*
- *To know that the 2, 4 and 8 times tables are connected through doubling*
- *To know that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10.*
- *To know that perimeter is the measurement of the outside of a shape*
- *To know that we use m/cm/mm to measure length*
- *To know that we use kg/g to measure mass*
- *To know that we use l/ml to measure capacity.*

New Skills

- *To use multiplication and division facts for the 3, 4 and 8 multiplication tables*
- *To 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*
- *To solve problems, including missing number problems, involving multiplication and division.*
- *To measure the perimeter of simple 2-D shapes.*

New vocabulary I will learn

- Perimeter
- Metre
- Centimetre
- Millimetres
- Calculate
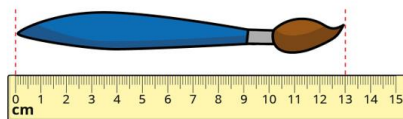- Remainders
- Exchange
- Equivalent

Pictorial representations

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

b)

Tens	Ones

$35 \times 4 =$

b)

$\square \times \square = \square$

$\square \div \square = \square$

$\square \times \square = \square$

$\square \div \square = \square$

How long is the paintbrush?

The paintbrush is $\square$ cm long.
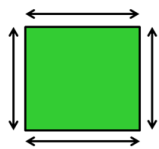
What is Perimeter?
The perimeter is the distance all the way around the outside of a 2D shape.

Measurement
Length — How long?
Height — How tall?
Capacity — How much?
Weight — How heavy?

Concept Links/Prior Knowledge

- *To recall multiplication and division facts for the two, five and ten multiplication tables, including recognising odd and even numbers*
- *To know that multiplication of two numbers can be done in any order (commutative)*
- *To know the multiplication (×) and division (÷) signs*
- *To know that multiplication and division are the inverse of each other (for example, 4 × 5 = 20 and 20 ÷ 5 = 4)*
- *To choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels*
- *To choose and use appropriate standard units to estimate and measure mass (kg/g) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels*
- *To choose and use appropriate standard units to estimate and measure temperature (°C) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels*
- *To choose and use appropriate standard units to estimate and measure capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.*