



Maths

Year 4

Non-negotiable

Know all number bonds to 10, 20 and 100 and related subtraction facts.
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Know all times tables to 12 X 12

Number and place value

N	Assessed	Examples
1	<u>Count in</u> <u>Multiples of 6</u> <u>Multiples of 7</u> <u>Multiples of 9</u> <u>Multiples of 25</u> <u>Multiples of 1000</u>	
2	Find 1000 more or less than a given number	
3	<u>Count backwards through zero to include negative numbers</u>	
4	Understand the place value of each digit in a four-digit number	3012 – What is the value of 3? How many tens in 6254? What is the 4 worth in 2481?
5	<u>Read and write, order and compare numbers beyond 1000</u>	
6	Identify, show and estimate numbers using different representations e.g. measures	
7	<u>Round any number to the nearest 10, 100 or 1000</u>	
8	Solve number problems that involve all of the above, using increasingly large positive numbers	
9	Read Roman numerals to 100 (I to C)	

Addition, subtraction, multiplication and division

A	Assessed	Examples
1	Use formal written method of column addition to add numbers with up to 4 digits	See route through calculation
2	Use formal written method of column subtraction to subtract numbers with up to 4 digits	See route through calculation Add and subtract numbers mentally including 2 digit numbers
3	Estimate and use inverse operations to check calculations	
4	<u>Solve addition and subtraction two-step problems</u>	
5	<u>Know multiplication facts up to 12 x 12</u>	
6	Use place value and known facts to mentally multiply and divide, including multiplying by 0 and 1, dividing by 1 and multiplying 3 numbers together	
7	Recognise and use factor pairs in mental calculations	2 and 3 are a factor pair of 6 as $2 \times 3 = 6$ 4 and 5 are a factor pair of 20 as $4 \times 5 = 20$
8	Use commutativity in mental calculations	$5+12=12+5$, $7 \times 2=2 \times 7$ (Calculations can be done in any order)
9	Use short multiplication to multiply two-digit and three-digit numbers by a one-digit number	See route through calculation
10	Solve multiplication and addition problems, including using distributive law to multiply two-digit numbers by one-digit numbers	Distributive law: $39 \times 7 = 30 \times 7 + 9 \times 7$ Associative law: $(2 \times 3) \times 4 = 2 \times (3 \times 4)$

Fractions

F	Assessed	Examples
1	<u>Recognise and show, using diagrams, families of common equivalent fractions</u>	Recognise fractions in their simplest form
2	<u>Count up and down in hundredths</u>	
3	<u>Know that hundredths are when you divide by 100 and tenths are when you divide by 10</u>	
4	Solve problems with harder fractions to calculate amounts, including where the numerator is greater than 1	$4/6$ of 24 =
5	Solve problems involving using fractions to divide quantities, including where the numerator is greater than 1	$3/4$ of 100g =
6	Add and subtract fractions with the same denominator	$3/5 - 2/5 =$
7	Recognise and write decimal equivalents of any number of tenths or hundredths	$4/10 = 0.4$ $4/100 = 0.04$
8	Recognise and write decimal equivalents to $1/4$, $1/2$ and $3/4$	$1/4 = 0.25$, $1/2 = 0.5$, $3/4 = 0.75$
9	Find the effect of dividing a one or two-digit number by 10 and 100	$24 \div 10 = 2.4$ $24 \div 100 = 0.24$
10	Identify the value of the digits in the answer as ones, tenths and hundredths	2.4: 2 ones and 4 tenths 0.24: 0 ones, 2 tenths, 4 hundredths
11	<u>Round decimals with 1dp to the nearest whole number</u>	
12	Compare numbers with the same number of decimal places up to 2dp	$0.35 < 0.42$ Measures context
13	<u>Solve simple measure and money problems involving fractions and decimals to 2dp</u>	

Measurement

M	Assessed	Examples
1	<u>Convert between different units of measure</u>	Use multiplication to convert from larger to smaller units
2	Measure and calculate the perimeter of rectangles, including squares, in cm and m	
3	Find the area of rectangles, including squares, by counting squares – linked to arrays in multiplication	
4	Estimate different measures, including money in pounds and pence	Estimate the length of a table Estimate the total of a bag of coins
5	Compare different measures, including money in pounds and pence	Table (45cm) > Book (15cm) $\pounds 1.42 < \pounds 1.54$
6	Calculate different measures, including money in pounds and pence	$35\text{kg} - 23\text{kg} =$ $\pounds 4.62 + 25\text{p} =$
7	Read, write and convert time between analogue and digital 12 and 24-hour clocks	
8	Solve problems involving converting from hours to minutes, years to months and weeks to days	4 hours = 4×60 minutes = 240 mins 3 years = 3×12 months = 36 months 2 weeks = 2×7 days = 14 days

Properties of shapes

Sh	Assessed	Examples
1	<u>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</u>	
2	Identify acute and obtuse angles	
3	Order and compare angles up to two right angles by size	
4	<u>Identify lines of symmetry in 2D shapes</u>	
5	Complete symmetrical shapes or patterns	

Position and direction

P	Assessed	Examples
1	Describe positions on a 2D grid as coordinates in the first quadrant	
2	Describe movements between positions as translations using left/right and up/down	
3	<u>Plot given points and draw sides to complete a polygon</u>	

Statistics

S	Assessed	Examples
1	Present and interpret discrete and continuous data in appropriate ways, including bar charts and pie graphs	<p>Discrete data is counted and can only take certain measures e.g. number of pupils in a class. You cannot have half a pupil</p> <p>Continuous data is measured and can take any value (within a range) e.g. a person's height. You can have half or quarter etc of a cm</p>
2	<u>Solve questions and problems using bar charts, pictograms, tables and other graphs</u>	