



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	Discrete data is counted and can only take certain measures e.g. number of pupils in a class. You cannot have half a pupil 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
2	<u>Solve questions and problems using bar charts, pictograms, tables and other graphs</u>	