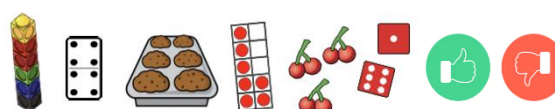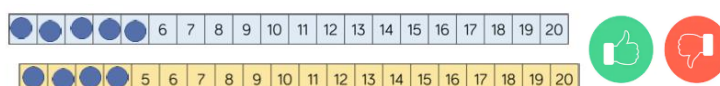# Number and Place Value
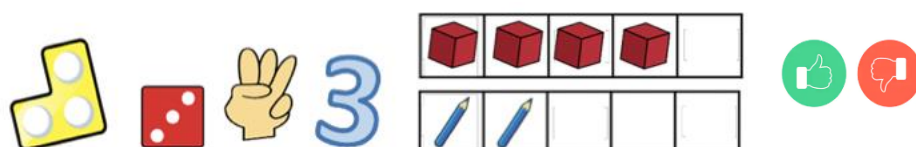
I can count to 5

I can count to 10

I can count to 20

I can compare quantities of identical objects

I can compare quantities of non – identical objects

number	zero	number	one	two
three	pair	four	five	six
seven	eight	nine	ten	teens
eleven	twelve	thirteen	fourteen	fifteen
sixteen	seventeen	eighteen	even	few
nineteen	twenty	none	less	odd
count	more			

place value	ones	tens	digit	larger
bigger	greater	fewer	smaller	fewest
smallest	least	most	biggest	largest
greatest	compare	order	size	first
second	third	last		

MEASUREMENT

Time

I can talk about my day
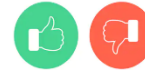
Time	days	Monday
Tuesday	week	birthday
holiday	morning	night
evening	today	afternoon
hands	before	yesterday
early	late	tomorrow
new	hour	o'clock
clock	watch	Wednesday
Thursday	Friday	Saturday
Sunday	now	later
soon	sleeps	timers

I can talk about weight.
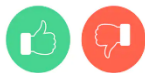
weigh	balances
heavy	light
scales	

I can talk about length, height and distance.

length	metre	height
width	depth	long
short	wide	narrow

I can talk about capacity

Full   Empty   Half full
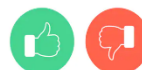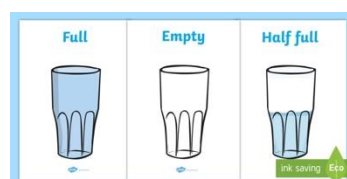
full	empty	holds
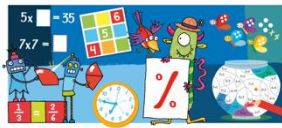
Addition and Subtraction

I can sort items into groups

I know my number bonds to 5

I can combine two groups.

I know my number bonds to 10
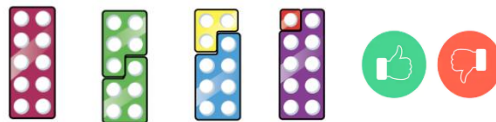
I can add more to a group and say how many I have

I can take away from a group and say how many I have

I can count on and back.

First   Then   Now
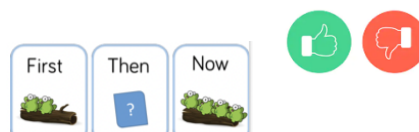
Addition	subtraction	double
total	altogether	take away
add	sum	difference between

Multiplication and Division

I can double.

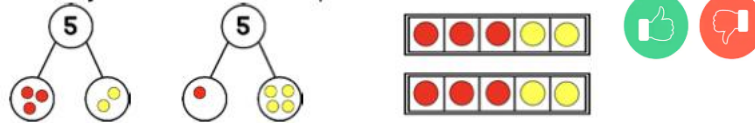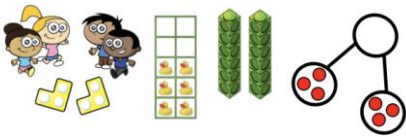I can half and share.

I know what odd and even are.
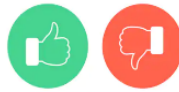
multiplication	division	sharing	quarter
doubling	halving	fractions	
parts of	whole	half	

Geometry

I can make simple patterns

I can explore more complex patterns.

shape	pattern	round	flat	curved
straight	hollow	solid	sort	
	symmetrical pattern		repeating pattern	

Geometry

I can name and sort 2-D shapes.
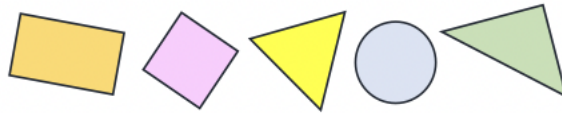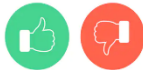
I have been told the names of 3-D shapes.
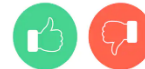
I can explore similarities and differences between the shapes.
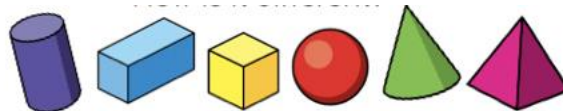
2-D shape					
corner	side	rectangle	square	circle	triangle

3-D shape					
face	edge	vertex	vertices	cube	pyramid
		sphere	cone		

Spatial Awareness

I can say where things are in relations to other items.

position	over	under	above	below	top
bottom	side	outside	inside	around	behind
front	back	beside	next	opposite	apart
between	middle	direction	left	right	down
forwards	backwards		sideways		across
along	towards		away from		movement
slide	roll	turn	stretch	bend	whole
turn	half turn				

Number

Number and Place Value
- ✓ I can count to 100.
- ✓ I can give one more and one less than a given number
- ✓ I can count in 2, 5s and 10s
- ✓ I can read and write numbers to 100.
- ✓ I can read and write numbers 1-20 in words.
- ✓ I can solve number problems.

PLACE VALUE

MILLIONS   THOUSANDS   UNITS

HUNDREDS TENS ONES   HUNDREDS TENS ONES   HUNDREDS TENS ONES

9 8 7 , 6 5 4 , 3 2 1
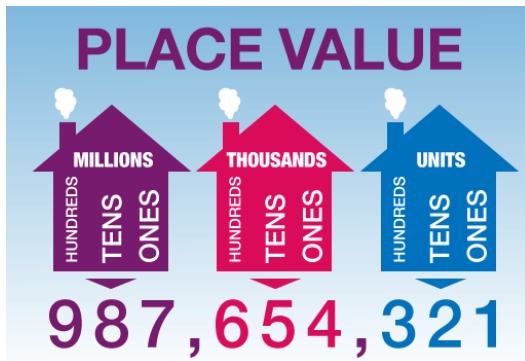
Number Equivalent to between	Numeral Multiple Roughly	Hundred Place Value	Equal to Half-way

Fractions
- ✓ I know what a half is.
- ✓ I know what a quarter is.

1 $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{8}$

$\frac{4}{4} = 1$ $\frac{2}{4} = \frac{1}{2}$
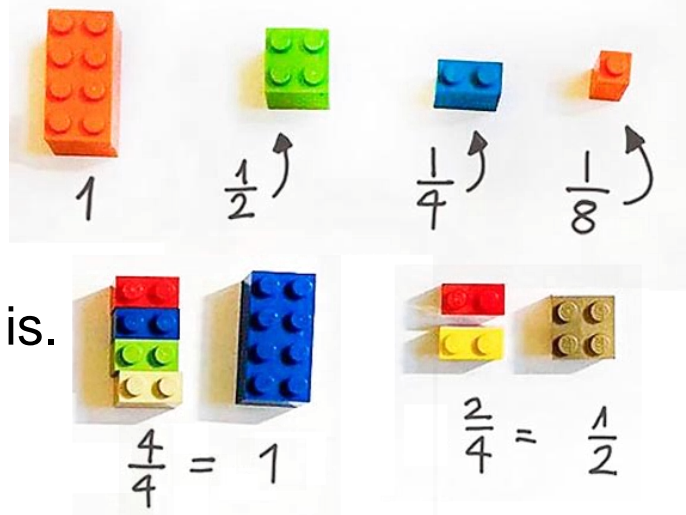
Fraction	Equal part sharing	Equal grouping Quarter	Equal

Calculation

✓ I know my number bonds to 20.
✓ I can use +, -, = signs.
✓ I can add and subtract number up to 20 in my head.
✓ I can solve problems that involve addition or subtraction.

addition	near double	half	halve
subtract	equals	number bonds	
number pairs		missing numbers	

✓ I know that multiplication is grouping.
✓ I can use arrays.
✓ I can double numbers up to 10 in my head.
✓ I know that division is sharing.
✓ I can solve problems that involve multiplication or division.

multiplication	multiply	multiplied by	multiple
division	dividing	grouping	array

Measurement

✓ I know the value of coins and notes.

money	change	dear	costs	cheap	total

✓ I can measure lengths, weight, capacity and volume.
✓ I can solve problems involving measurement.
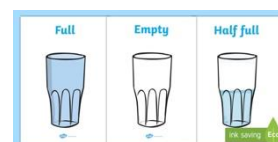
measures	measurement	length	centimetre
metre	ruler	metre	volume
weight	kilogram	capacity	litre
half	litre	half kilogram	

✓ I can order events by time
✓ I know days of the week.
✓ I know the months of the year.
✓ I can tell the time to the hour and half past.
✓ I can draw the hands on a clock face.

October	quarter-past	September	December
time	months	year	January
February	March	April	May
June	July	August	Spring
Winter	November	once	twice
seasons	Summer	Autumn	weekend
hours	minutes	half-past	hour hand
minute hand			

Geometry
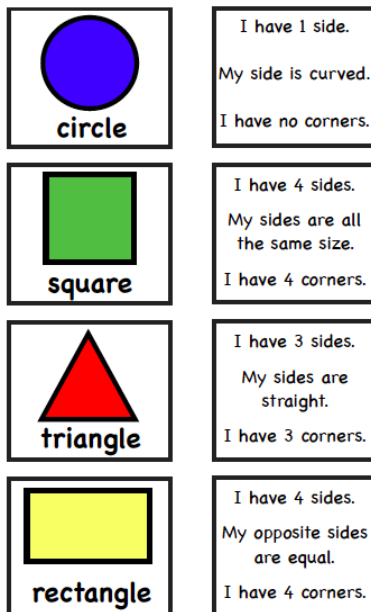
Properties of Shapes
✓ I can recognise and name 2-D shapes (rectangles, squares, circles and triangles).
✓ I can recognise and name 3-D shapes (cuboids, cubes, pyramids, spheres).

symmetry	2d shapes	cylinder
point	3d shapes	cuboid
symmetrical pattern		

Position and Direction
✓ I can describe the position of different items (eg. top, middle, bottom...)
✓ I can recognise and create repeating patterns with objects and shapes.
✓ I can move half a turn.
✓ I can move a quarter turn.
✓ I can use a three-quarter turn.

circle — I have 1 side. My side is curved. I have no corners.
square — I have 4 sides. My sides are all the same size. I have 4 corners.
triangle — I have 3 sides. My sides are straight. I have 3 corners.
rectangle — I have 4 sides. My opposite sides are equal. I have 4 corners.

Underneath   centre   journey   quarter turn   three-quarter turn

Number

Number and Place Value

PLACE VALUE

987,654,321
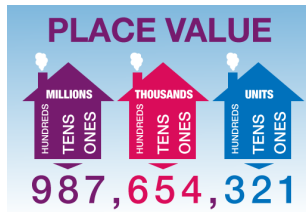
- ✓ I can count in tens from any number.
- ✓ I can identify ten more and ten less than a given number.
- ✓ I can count in steps of 2, 3 and 5.
- ✓ I can recognise place value of each digit in 2 digit number.
- ✓ I can read and write numbers to 100 in digits and words.
- ✓ I can compare and order numbers from 0 up to 100.
- ✓ I can solve number problems.

thousand	threes	fours	tally	sequence	continue
predict	rule	greater than >		less than <	
represents	exchange		stands for		digit

Fractions

- ✓ I can recognise, find, name and
- ✓ write fractions of a length, shape
- ✓ or set of objects (1/3,2/4, 1/4, 3/4)
- ✓ I can recognise equivalent fractions
- ✓ for 2/4 and 1/2
- ✓ I can write simple fractions.

1 $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{8}$

$\frac{4}{4} = 1$ $\frac{2}{4} = \frac{1}{2}$
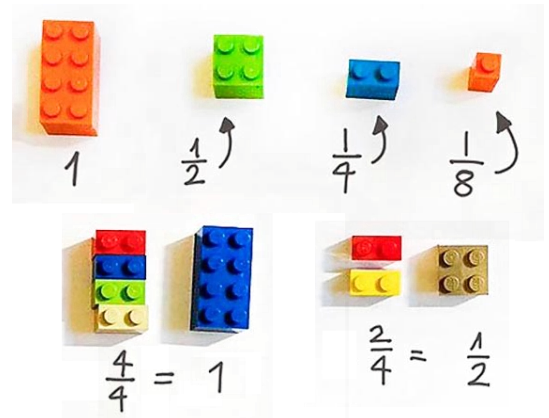
equivalent fraction	mixed number	numerator
denominator	third	

Calculation

✓ I can show that adding 2 numbers can be done in any order.
✓ I know that sum means add.
✓ I know that difference means subtract.
✓ I can add and subtract numbers mentally.
✓ I can solve addition and subtraction problems.
✓ I can recall addition and subtraction facts to 20 fluently.
✓ I can check subtraction calculations using addition
✓ calculations.
✓ I can record addition and subtraction in columns using
✓ partitioning.

Facts	tens boundary	one hundred more/less

✓ I can show that multiplying 2 numbers can be done in any order.
✓ I know that division can't be done in any order.
✓ I can calculate mentally using multiplication and divis the 2, 5 and 10 times table
✓ I can use the inverse to solve missing number problems.
✓ I can solve problems involving multiplication and division.
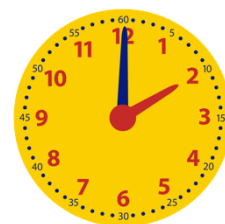✓ I can recall multiplication and division facts for the 2, 5 and 10 times table.

groups of   times   repeated addition   row   column
multiplication fact   division fact   multiplication table

Measurement

✓ I can compare and sequence intervals of time.
✓ I know the number of minutes in an hour and the number of hours in a day.
✓ I can tell and write the time to 5 minutes, including quarter past/to.
✓ I can draw the hands on a clock to show these times.
✓ I can record the time on an analogue clock in words.
✓ I can calculate time intervals and start to understand how long a second and a minute is.

fortnight	5, 10, 15...minutes past	digital
analogue	timer	seconds
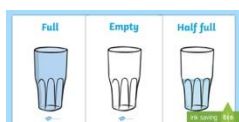
✓ I can choose appropriate units of measurement.
✓ Length (m/cm), mass (g/kg), temperature (oC), capacity (litres/ml)
✓ I can solve problems involving comparing measures of length, mass and capacity/volume.
✓ I can compare and order measurements.

Temperature	degree	tape measure	gram	millilitre

✓ I can use the symbols for pounds (£) and pence (p).
✓ I can combine amounts of money to make different
✓ amounts,
✓ I can solve money problems involving addition and subtraction, giving change,

bought	sold

Geometry

circle	I have 1 side. My side is curved. I have no corners.
square	I have 4 sides. My sides are all the same size. I have 4 corners.
triangle	I have 3 sides. My sides are straight. I have 3 corners.
rectangle	I have 4 sides. My opposite sides are equal. I have 4 corners.

Properties of Shapes
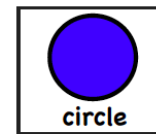
- ✓ I can draw lines and shapes using straight edges.
- ✓ I can identify 2-D shapes on the surface of 3-D shapes.
- ✓ I can identify and describe the properties of 2-D   shapes.
- ✓ I can identify and describe the properties of 3-D shapes.
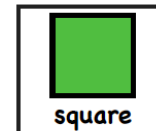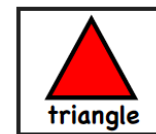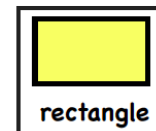
surface	line symmetry	rectangular	circular	pentagon
hexagon	octagon	triangular		
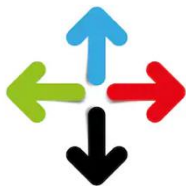
Position and Direction

- ✓ I can order and arrange combinations of mathematical objects in patterns and sequences.

route	clockwise	anti-clockwise	right-angle	higher
lower	straight line			

Statistics

- ✓ I can interpret data from pictograms, tally charts, block diagrams and simple tables.
- ✓ I can present data in pictograms, tables, tally charts and block diagrams.
- ✓ I can ask and answer questions about totalling and comparing data.
- ✓ I can ask and answer questions by counting objects in each category and sorting the categories by amount.

graph	block graph	pictogram	represent	label
title	most/least popular		most/least common	

Number

Number and Place Value

PLACE VALUE

987,654,321
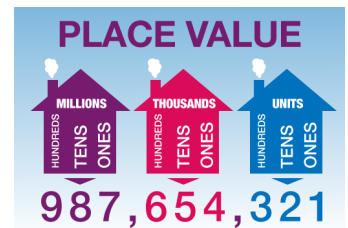
- ✓ I can count from 0 in multiples of 100.
- ✓ I can find 10 or 100 more or less than a given number.
- ✓ I can count from 0 in multiples of 4, 8 and 50.
- ✓ I can recognise the place value of each digit in a 3-digit number,
- ✓ I can read and write numbers up to 1000 in numerals and words.
- ✓ I can identify, represent and estimate numbers to 1000.
- ✓ I can order and compare numbers up to 1000.
- ✓ I can solve number problems.
- ✓ I can round whole numbers up to 100 to the nearest 10.

eights	fifties	hundreds	factor of	Roman numerals
relationship		approximate	round	

Fractions

- ✓ I can recognise, find and write fractions of a set of objects.
- ✓ I can count up and down in tenths.
- ✓ I know that you find tenths by dividing by 10.
- ✓ I can recognise and show equivalent fractions.
- ✓ I know that 0.1 is 1/10.
- ✓ I can order fractions with the same denominator.
- ✓ I can add and subtract fractions with the same denominator.
- ✓ I can place fractions on a number line.
- ✓ I can solve problems with fractions.
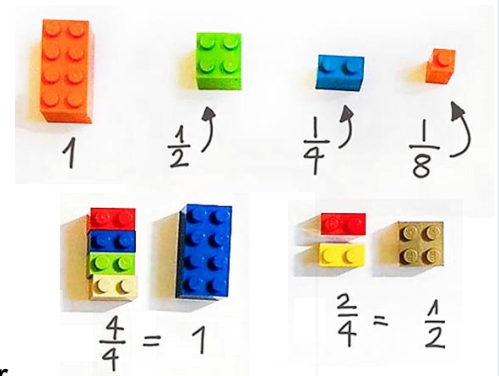
sixths	sevenths	eighths	tenths

Calculation

- ✓ I can use knowledge of place value and partitioning to
- ✓ help when adding and subtracting.
- ✓ I can mentally add and subtract numbers including a 3 digit number.
- ✓ I can use addition and subtraction to solve problems, including missing number problems
- ✓ I can add and subtract numbers up to 3 digits using column addition/subtraction

hundreds boundary

- ✓ I can calculate mentally using multiplication and division facts for the 3, 4 and 8 times table.
- ✓ I can use multiplication and division to solve problems, including missing number problems.
- ✓ I can recall and use multiplication and division facts for the 3, 4 and 8 times tables.
- ✓ I can multiply and divide 2-digit by 1-digit numbers using formal methods.
- ✓ I can check answers by using the inverse and by rounding.

remainder   factor   product

Measurement

- ✓ I can convert between analogue and digital clocks.
- ✓ I know the number of seconds in a minute, and the numbers of days in each month, year and leap year.
- ✓ I can estimate and read time to the nearest minute.
- ✓ I can compare time in terms of seconds, minutes and hours.
- ✓ I can tell and write the time from an analogue clock, including using Roman numerals to XII.
- ✓ I can compare durations of events

century	calendar	earliest	latest	am	pm

- ✓ I can record measurements using mixed units (eg. 1kg 200g)
- ✓ I can choose appropriate tools and units when measuring.
- ✓ I can measure, compare, add and subtract: lengths(m/cm/mm), mass(kg/g), volume(l/ml)
- ✓ Measure the distance around shapes inside and outside the classroom.
- ✓ I can measure the perimeter of simple 2-D shapes.

Millimetre	kilometre	mile	centigrade	perimeter

- ✓ I can exchange £ and p confidently.
- ✓ I can solve problems involving combinations of coins and notes.
- ✓ I can add and subtract amounts of money to give change.

Geometry

Properties of Shapes

Solid shape	Name	Properties
	Cuboid	1 face 0 edges 0 vertices
	Cylinder	2 faces 1 edges 1 vertices
	Sphere	5 faces 9 edges 6 vertices
	Triangular prism	6 faces 12 edges 8 vertices
	Triangular based pyramid (Tetrahedron)	6 faces 12 edges 8 vertices
	Pentagonal prism	3 faces 2 edges 0 vertices
	Cube	4 faces 6 edges 4 vertices
	Square based pyramid	7 faces 15 edges 10 vertices
	Cone	5 faces 8 edges 5 vertices
	Pentagonal based pyramid	6 faces 10 edges 6 vertices

|					
	Trapezium	1 set of parallel sides	No equal sides	2 sets of equal angles	1 line of symmetry
	Parallelogram	2 sets of parallel sides	2 sets of equal sides	2 sets of equal angles	No lines of symmetry
	Rectangle	2 sets of parallel sides	2 sets of equal sides	All angles equal	2 lines of symmetry
	Square	2 sets of parallel sides	All sides equal	All angles equal	4 lines of symmetry

- ✓ I can draw 2-D shapes with straight sides measured in cm.
- ✓ I can make 3-D shapes using modelling materials.
- ✓ I can identify horizontal and vertical lines.
- ✓ I can identify pairs of perpendicular and parallel lines.
- ✓ I can recognise 3-D shapes in different orientations and describe them.
- ✓ I can identify right angles.
- ✓ I know that two right angles make a half turn, three make three-quarters of a turn and four a complete turn.
- ✓ I can identify whether angles are greater than or less than a right angle.
- ✓ I can recognise angles as a property of shape or a description of a turn

pentagonal	hexagonal	octagonal	quadrilateral	parallel
right-angled	perpendicular	hemisphere	triangular prism	prism

Position and Direction

- ✓ I can mark a given square on a grid.
- ✓ I can recognise and devise patterns and sequences in shapes.
- ✓ I can give and follow multi-step directions.
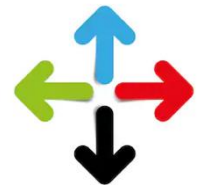
compass point	north	south	east	west
horizontal	vertical	diagonal	angle	N S E W

Statistics

- ✓ I can interpret bar charts, pictograms and tables.
- ✓ I can present data in bar charts, pictograms and tables.
- ✓ I can solve problems with one or two steps using scaled bar charts, pictograms and tables.
- ✓ I can count the number of objects in each category and sort the categories by amount.

|			
Carroll diagram	bar chart	frequency table	axis
Venn diagram	axes	diagram	

Number

Number and Place Value

PLACE VALUE

987,654,321

- ✓ I can count from 0 in multiples of 1000 and can find 1000 more or less.
- ✓ I can count backwards through zero including negative numbers.
- ✓ I can count from 0 in multiples of 6, 7, 9 and 25.
- ✓ I can recognise the place value of each digit in a 4-digit number,
- ✓ I can read Roman numerals to 100.
- ✓ I know that the numeral system changed from Roman numerals to include the concept of zero and place value.
- ✓ I can read and write numbers up to 1000 in numerals and words.
- ✓ I can identify, represent and estimate numbers to 10000.
- ✓ I can order and compare numbers beyond 1000.
- ✓ I can solve number problems.
- ✓ I can round whole numbers up to 10000 to the nearest 10, 100 or 1000.

| Ten thousand | hundred thousand | million | sixes | sevens |
| Nines | twenty-fives | consecutive | | integer |

Fractions and Decimals
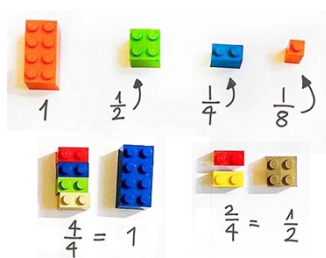
- ✓ I can use factors and multiples to recognise equivalent fractions and simplify.
- ✓ I can recognise and show families of common equivalent fractions.
- ✓ I can recognise and write decimal equivalents of any number of tenths or hundredths and 1/4, 1/2 and 3/4.
- ✓ I can order unit fractions and fractions with the same denominator.
- ✓ I can add and subtract fractions with the same denominator.
- ✓ I can understand the relationship between non-unit fractions and multiplication and division of amounts.
- ✓ I can solve problems involving harder fractions to calculate and divide amounts

- ✓ I can compare numbers with the same number of
- ✓ decimals places up to two-decimal places.
- ✓ I can count up and down in hundredths
- ✓ I know that you find hundredths by dividing by 100.
- ✓ I know that 0.01 is 1/100
- ✓ I can divide a one or two-digit number by 10 and 100. .

13.95 → hundredths (1/100)
tens → units
→ tenths (1/10)
decimal point
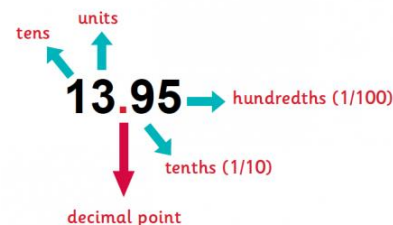
| hundredths | decimal | decimal fraction | decimal point |
| decimal place | decimal equivalent | | proportion |

Calculation

- ✓ I understand the inverse relationship between addition and subtraction.
- ✓ I can use factor pairs in mental calculation.
- ✓ I can mentally add and subtract numbers including a 3 and 4 digit number.
- ✓ I can use addition and subtraction facts to 100 and derive related facts up to 1000.
- ✓ I can solve calculation problems involving two-step addition and subtraction.
- ✓ I can add and subtract numbers up to 4 digits using column addition/subtraction.
- ✓ I can check answers by using the inverse and by rounding.

inverse

- ✓ I can use the distributive law to multiply 2 digit numbers by one digit.
- ✓ I can use place value and known facts to multiply and divide mentally.
- ✓ I can solve problems involving multiplying and adding.
- ✓ I can recall and use multiplication and division facts up to 12x12.
- ✓ I can multiply and divide 3-digit by 1-digit numbers using formal methods.

| square | squared | cube | cubed |

Ratio

- ✓ I can solve calculation problems involving multiplying and adding.

Algebra

- ✓ I can use the distributive law and associative law to perform mental calculations
  (eg. 3 x 5 x 2 as 3 x 10, 39x7 as 30x7 + 9x7)

Measurement
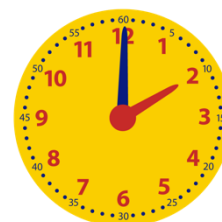
- ✓ I can read, write and convert between analogue and digital clocks.
- ✓ I can read and write time from analogue and digital clocks.
- ✓ I can solve problems relating to the duration of events.
- ✓ I can convert from larger to smaller units of time.

leap year	millennium	timetable	arrive	depart
noon	date of birth			
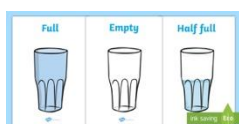
- ✓ I can convert from larger to smaller units of metric measure.
- ✓ I can estimate and compare different measures.
- ✓ I can measure the perimeter of a rectilinear figure.
- ✓ I can find the area of rectilinear shapes by counting squares and relate it to arrays.
- ✓ I can calculate with different measures
- ✓ I can solve problems involving mixed units.
- ✓ I can find the perimeter of a rectilinear figure.

breadth	edge	area	cover
square centimetre	mass	measuring cylinder	

- ✓ I can record money using decimal notation.
- ✓ I can calculate with money.
- ✓ I can solve measure and money problems involving fractions and decimals to two-decimal places

Geometry

Properties of Shapes

Solid shape	Name	Properties
	Cuboid	1 face 0 edges 0 vertices
	Cylinder	2 faces 1 edges 1 vertices
	Sphere	5 faces 9 edges 6 vertices
	Triangular prism	6 faces 12 edges 8 vertices
	Triangular based pyramid (Tetrahedron)	6 faces 12 edges 8 vertices
	Pentagonal prism	3 faces 2 edges 0 vertices
	Cube	4 faces 6 edges 4 vertices
	Square based pyramid	7 faces 15 edges 10 vertices
	Cone	5 faces 8 edges 5 vertices
	Pentagonal based pyramid	6 faces 10 edges 6 vertices

✓ I can complete a simple symmetric figure.
✓ I can identify lines of symmetry in 2-D shapes.
✓ I can recognise 3-D shapes.
✓ I can compare and classify shapes.
✓ I can classify 3-D shapes and the 2-D shapes that form their surface.
✓ I can identify acute and obtuse angles.
✓ I can compare and order angles up to two right angles by size.

Trapezium	1 set of parallel sides	No equal sides	2 sets of equal angles	1 line of symmetry
Parallelogram	2 sets of parallel sides	2 sets of equal sides	2 sets of equal angles	No lines of symmetry
Rectangle	2 sets of parallel sides	2 sets of equal sides	All angles equal	2 lines of symmetry
Square	2 sets of parallel sides	All sides equal	All angles equal	4 lines of symmetry

line	construct	sketch	centre	square-based
reflect	reflection	regular	irregular	oblong
equilateral		scalene	isosceles	heptagon
parallelogram		rhombus	trapezium	polygon
spherical	cylindrical	tetrahedron	polyhedron	

Position and Direction

✓ I can describe positions on a 2-D grid as co-ordinates in the first quadrant.
✓ I can plot specified points and draw sides to complete shapes.
✓ I can describe movement between positions as translations.

north-east	north-west	south-east	south-west
translate	translation	rotate	rotation
protractor	set-square		

Statistic

✓ I can interpret discrete and continuous data using appropriate graphs (time graphs).
✓ I can present discrete and continuous data using appropriate graphs (time graphs, bar charts)
✓ I can solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
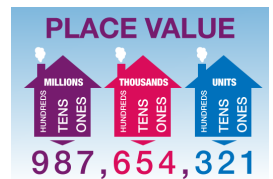✓ I can begin to solve problems involving information presented in tables.

|		
survey	questionnaire	data

PLACE VALUE

987,654,321

__Number__

Number and Place Value
- ✓ I can count forwards and backwards with positive and negative whole numbers, including through zero.
- ✓ I can count forwards or backwards in steps of powers of 10 for a given number to 1000000.
- ✓ I can count in any multiples of 2 to 10, 25 and 50.
- ✓ I can count from 0 in multiples of 1000.
- ✓ I can read and write numbers up to 1000000 in numerals and words and know the value of each digit.
- ✓ I can read Roman numerals to 1000 (M) and recognise years.
- ✓ I can solve number and practical problems.
- ✓ I can round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000.

factor pair	divisibility	prime	ten thousand

Fractions, Decimals and Percentages
- ✓ I can write improper fractions as a mixed number.
- ✓ I can use knowledge of multiplication table facts to find equivalent fractions
- ✓ I can identify, name and write equivalent fractions of a given fraction.
- ✓ I can compare and order fractions whose denominators are all multiples of the same number
- ✓ I can add and subtract fractions with the same denominator and denominators that are multiples of the same number.
- ✓ I can multiply proper fractions and mixed numbers by whole numbers.
- ✓ I can solve a variety of problems involving fractions
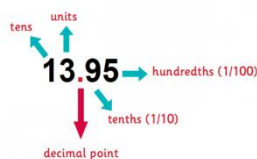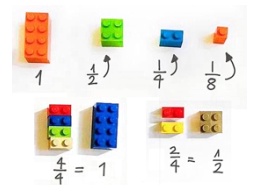
- ✓ I can recognise and use thousandths and relate them to tenths and hundredths
- ✓ I can read and write decimal numbers as fractions
- ✓ I can divide one- or two-digit numbers by 1000 and know the value of each digit.
- ✓ I can round decimals with two decimal places to the nearest whole number and to one decimal place
- ✓ I can read, write, order and compare numbers with up to three decimal places
- ✓ I can add and subtract decimals including those with a different number of decimal places
- ✓ I can solve problems involving addition and subtraction involving numbers up to three decimal places

- ✓ I can recognise the per cent symbol and understand that per cent relates to 'number of parts per hundred'
- ✓ I can write percentages as a fraction with denominator hundred, and as a decimal
- ✓ I know percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those with a denominator of a multiple of 10 or 25.
- ✓ I can solve problems which require knowing key percentage and decimal equivalents

proper fraction	improper fraction	equivalent	cancel
percentage	percent		

Maths Passport – Year 5 to Year 6

Calculation

- ✓ I can develop an understanding of the equals sign.
- ✓ I can add and subtract numbers mentally with increasingly large numbers.
- ✓ I can continue to develop knowledge of addition and subtraction facts.
- ✓ I can solve addition and subtraction multi-step problems in familiar contexts.
- ✓ I can add and subtract whole numbers with more than 4 digits using formal written methods.

> tenths boundary   one boundary

- ✓ I can solve calculation problems involving multiplication, division using knowledge of factors and multiples, squares and cubes,
- ✓ I can multiply and divide numbers mentally using known facts.
- ✓ I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.
- ✓ I can establish whether a number up to 100 is prime.
- ✓ I can continue to use the distributive law to partition numbers when multiplying them.
- ✓ I can identify multiples and factors.
- ✓ I can recall square and cube numbers
- ✓ I can recall prime numbers up to 19.
- ✓ I can multiply numbers up to 4 digits by a 1 or 2 digit number using a formal written method.
- ✓ I can divide numbers up to 4 digits by a one digit number using a formal written method.
- ✓ I can use rounding to check answers.
- ✓ I can use the inverse to check answers.

Ratio

- ✓ I can solve calculation problems involving scaling by simple fractions and simple rates
- ✓ I can use multiplication and division as inverses

Algebra

- ✓ I can express missing measure questions algebraically
- ✓ I can find all factor pairs of a number
- ✓ I can recognise and describe linear number sequences and find the rule.
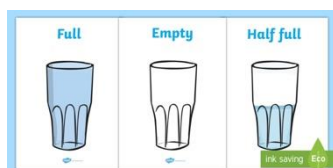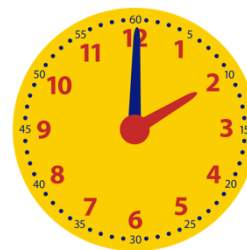
> formula

Measurement

- ✓ I can continue to develop understanding of how analogue and digital clocks tell the time
- ✓ I can continue to practise converting between units of time
- ✓ I can continue to become fluent in telling and writing the time
- ✓ I can solve problems involving converting between units of time

- ✓ I can convert between different units of metric measure
- ✓ I can understand and use approximate equivalences between metric units and common imperial units
- ✓ I can estimate and compare different measurements
- ✓ I can read temperature measures using degrees Celsius, realising that the scale becomes negative below the freezing point of water
- ✓ I can solve measurement problems using all four operations and decimal notation, including scaling and conversions

Perimeter, Area & Volume
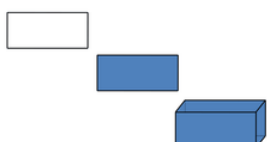
- ✓ I can understand the difference between perimeter and area.
- ✓ I can measure the perimeter of composite rectilinear shapes
- ✓ I can calculate the perimeter of composite rectilinear shapes
- ✓ I can estimate the area of irregular shapes and volume and capacity

- ✓ Develop fluency in using money expressed in £ and p
- ✓ Solve problems involving money, using the four operations

square metre	square millimetre	imperial unit
pint	gallon	discount
currency		

Geometry

Properties of Shapes

Solid shape	Name	Properties
	Cuboid	1 face 0 edges 0 vertices
	Cylinder	2 faces 1 edges 1 vertices
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✓ I can draw given angles and measure them in degrees and draw shapes with sides measured to the nearest millimetre
✓ I can use correct markings for parallel lines and right angles
✓ I can identify 3-D shapes, including cubes and other cuboids, from 2-D representations
✓ I can distinguish between regular and irregular polygons based on reasoning about equal sides and angles
✓ I can make and classify 3-D shapes, including identifying all of the 2-D shapes that form their surface
✓ I can identify angles at a point and one whole turn, angles at a point on a straight line and ½ a turn and other multiples of 90⁰ .
✓ I can estimate and compare acute, obtuse and reflex angles
✓ I can use the properties of rectangles to deduce related facts and find missing lengths and angles

radius   diameter   congruent   axis of symmetry
octahedron

Position and Direction
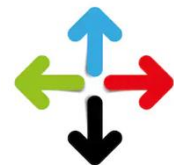
✓ I can continue to use coordinates in the first quadrant.
✓ I can identify the points required to complete a polygon
✓ I can identify, describe and represent the position of a shape following a reflection or translation.

x-axis   y-axis   quadrant   co-ordinate

Statistics

✓ I can interpret line graphs
✓ I can interpret more complex tables, including timetables
✓ I can decide the best way to present given data
✓ I can complete tables, including timetables
✓ I can solve comparison, sum and difference problems using information presented in a line graph
✓ I can solve problems using information in tables, including timetables

database   bar line chart   line
graphmaximum/minimum value   outcome

Number

PLACE VALUE

987,654,321

Number and Place Value

- ✓ I can calculate intervals across zero
- ✓ I can count forwards or backwards in steps of powers of 10 for any given number to 1 000 000
- ✓ I can count in multiples of 2, through to 10, 25 and 50
- ✓ I can read and write numbers to 10 000 000 and determine the value of digits
- ✓ I can read Roman numerals to 1000 (M) and recognising years written in Roman numerals
- ✓ I can use negative numbers in context
- ✓ I can order and compare numbers up to 10 000 000
- ✓ I can solve number problems and practical problems with number and place value.
- ✓ I can round whole numbers to 10 000 000 to a required degree of accuracy

factorise	prime factor	digit total

Fractions, Decimals and Percentages

- ✓ I can understand the connection between fractions, decimals and percentages
- ✓ I can recall and use equivalences between simple fractions, decimals and percentages.
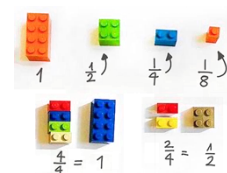- ✓ I can solve problems with FDP.

- ✓ I recognise that per cent relates to 'number of parts per hundred'

tens units
13.95 → hundredths (1/100)
tenths (1/10)
decimal point

- ✓ I can use written division methods in cases where the answer has up to two decimal places
- ✓ I can multiply one-digit numbers with up to two decimal places by whole numbers
- ✓ I can multiply a quantity that represents a unit fraction to find the whole quantity
- ✓ I can solve problems which require decimal answers to be rounded to specified degrees of accuracy
- ✓ I can round decimals to three decimal places or other approximations depending on the context
- ✓ I can multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places

- ✓ I can use common factors to simplify fractions
- ✓ I can calculate decimal fraction equivalents for a simple fraction
- ✓ I can identify the value of each digit in numbers given to three decimal places
- ✓ I can consolidate understanding of the relation between tenths, hundredths and thousandths and decimal notation
- ✓ I can add and subtract fractions with different denominators and mixed numbers.
- ✓ I can multiply simple pairs of proper fractions
- ✓ I can divide proper fractions by whole numbers
- ✓ I can compare and order fractions, including fractions > 1
- ✓ I can use common factors to simplify fractions
- ✓ I can use common multiples to express fractions in the same denomination

Calculation

- ✓ I can use knowledge of the order of operations
- ✓ I can consolidate understanding of the structure of numbers and types f numbers.
- ✓ I can perform mental calculations.
- ✓ I can solve problems, including multi-step problems using more than one of the four operations
- ✓ I can consolidate knowledge of multiples and factors, factor pairs of a number, and common factors of two numbers
- ✓ I can check answers to calculations with mixed operations and large numbers.
- ✓ I can check answers to calculations with all four operations involving any numbers by rounding.

- ✓ I can consolidate knowledge of addition facts and the related subtraction facts.
- ✓ I can solve multistep addition and subtraction problems in less familiar contexts.
- ✓ I can consolidate adding and subtracting whole numbers with more than 4 digits using a formal written method

- ✓ I can identify common factors, common multiples and prime numbers greater than 100
- ✓ I can consolidate multiplying and dividing whole numbers and decimals by 10, 100 and 1000
- ✓ I can consolidate recall of square numbers and cube numbers and prime numbers up to 19.
- ✓ I can multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method.
- ✓ I can divide numbers up to 4 digits by a two-digit whole number using the formal methods.

Ratio

- ✓ I can solve problems involving the calculation of percentages and the use of percentages for comparison
- ✓ I can solve problems involving similar shapes where the scale factor is known or can be found
- ✓ I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

Algebra

- ✓ I can enumerate possibilities of combinations of two variables.
- ✓ I can generate and describe linear number sequences.
- ✓ I can express missing number problems algebraically
- ✓ I can use simple formulae
- ✓ I can find pairs of numbers that satisfy an equation with two unknowns

| formulae | equation | unknown | variable |

Measurement

- ✓ I can develop understanding of how analogue and digital clocks tell the time
- ✓ I can consolidate understanding of converting between units of time
- ✓ I can consolidate fluency in working with time and recording the time.
- ✓ I can consolidate skills in solving problems converting between units of time

| Greenwich Mean Time   British Summer Time International Date Line |
|---|

- ✓ I can use, read and write standard units with up to three decimal places, including converting from smaller to larger units and vice versa
- ✓ I can add and subtract positive and negative measurements such as temperature
- ✓ I can solve measurement problems with decimal notation up to three decimal places and approximate equivalences between metric and imperial measurements
- ✓ I can convert between miles and kilometres and use a conversion graph
- ✓ I can continue to measure and compare using different standard units of measure

cubic centimetres (cm3)	cubic metres (m3)	cubic kilometres (km3)
cubic millimetres (mm3)	centilitre	ounce
circumference	tonne	pound
yard	foot	feet
inch	inches	

- ✓ I can calculate the area of parallelograms and triangles
- ✓ I can consolidate skills in calculating perimeter
- ✓ I can recognise when it is possible to use formulae for area and volume of shapes
- ✓ I can calculate and compare volume of cubes and cuboids using standard units
- ✓ I can recognise that shapes with the same areas can have different perimeters and vice versa
- ✓ I can estimate volume of cubes and cuboids
- ✓ I can consolidate skills in identifying and measuring perimeter

Perimeter, Area & Volume
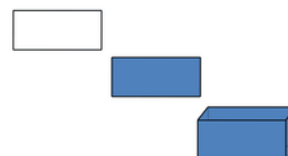
- ✓ Consolidate fluency in using money expressed in £ and p
- ✓ Continue to solve problems involving money using the four operations

profit   loss

<u>Geometry</u>

<u>Properties of Shapes</u>

Solid shape	Name	Properties
	Cuboid	1 face 0 edges 0 vertices
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- ✓ I can draw 2-D shapes accurately using given dimensions and angles
- ✓ I can use conventional markings and labels for lines and angles
- ✓ I can build simple 3-D shapes, including making nets.
- ✓ I can compare and classify geometric shapes.
- ✓ I can illustrate and names parts of circles, including radius, diameter and circumference and know that the diameter of a circle is twice the radius.
- ✓ I can recognise 3-D shapes from their nets
- ✓ I can recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
- ✓ I can check solutions to missing angle problems by estimating
- ✓ I can find unknown angles and lengths in triangles, quadrilaterals, and regular polygons

circumference	concentric	arc	net	open
intersection	intersecting	closed	plane	kite
dodoecohedron	reflex angle			

<u>Position and Direction</u>

- ✓ I can use positions on the full coordinate grid (all four quadrants)
- ✓ I can draw and label rectangles (including squares), parallelograms and rhombuses specified by coordinates in the four quadrants,
- ✓ I can predict missing coordinates using the properties of shapes
- ✓ I can draw and translate simple shapes on the coordinate plane, and reflect them in the axes

<u>Statistics</u>

- ✓ I can interpret data in pie charts
- ✓ I can consolidate skills in interpreting more complex tables, including timetables
- ✓ I can present data using pie charts and line graphs
- ✓ I can consolidate skills in completing tables, including timetables
- ✓ I can solve problems using pie charts and line graphs
- ✓ I can calculate and interpret the mean as an average

pie chart	mean	mode	median	range
statistics	distribution			