

# Numeracy Objectives of 2014 National Curriculum for EYFS

<b>Number</b>	S0/1	1	Recognise some numerals of personal significance and numerals 1 to 5.
	S0/2	2	Counts up to three or four objects by saying one number name for each item.
	S0/3	3	Counts objects to 10, and beginning to count beyond 10.
	S0/4	4	Counts out up to six objects from a larger group.
	S0/5	5	Selects the correct numeral to represent 1 to 5, then 1 to 10 objects.
	S0/6	6	Counts an irregular arrangement of up to ten objects.
	S0/7	7	Estimates how many objects they can see and checks by counting them.
	S0/8	8	Uses the language of 'more' and 'fewer' to compare two sets of objects.
	S0/9	9	Finds the total numbers of items in two groups by counting all of them.
	S0/10	10	Says the number that is one more than a given number.
	S0/11	11	Finds one more or one less from a group of up to five objects, then ten objects.
<b>Shape, Space and Measure</b>	S0/12	12	Uses positional language.
	S0/13	13	Beginning to talk about the shapes of everyday objects, e.g. 'round' and 'tall'.
	S0/14	14	Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes or to select a particular named shape.
	S0/15	15	Can describe their relative position such as 'behind' or 'next to'.
	S0/16	16	Orders two or three items by length or height.
	S0/17	17	Orders two items by weight or capacity.
	S0/18	18	Uses everyday language related to time.
	S0/19	19	Beginning to use everyday language related to money.
	S0/20	20	Orders and sequence familiar events.

# Numeracy Objectives of 2014 National Curriculum for Year 1

Place Value	S1/1	1	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Count, read and write numbers to 100 in numerals.
	S1/2	2	Count in multiples of twos, fives and tens.
	S1/3	3	Given a number, identify one more and one less.
	S1/4	4	Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.
	S1/5	5	Read and write numbers from 1 to 20 in numerals and words.
Add / Sub	S1/6	6	Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.
	S1/7	7	Represent and use number bonds and related subtraction facts within 20.
	S1/8	8	Add and subtract one-digit and two-digit numbers to 20, including zero.
	S1/9	9	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \_ - 9$ .
Mult	S1/10	10	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.
Fractions	S1/11	11	Recognise, find and name a half as one of two equal parts of an object, shape or quantity.
	S1/12	12	Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.
Measure	S1/13	13	Compare, describe & solve practical probs for: lengths/heights (long/short/tall, half/double); mass/weight (heavier/lighter); capacity/volume (full/empty, more/less); time (quicker/slower/later).
	S1/14	14	Measure and begin to record the following: lengths/heights; mass/weight; capacity/volume; time (hours, minutes, seconds).
	S1/15	15	Recognise and know the value of different denominations of coins and notes.
	S1/16	16	Sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening.
	S1/17	17	Recognise and use language relating to dates, including days of the week, weeks, months and years.
	S1/18	18	Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
Geometry	S1/19	19	Recognise and name common 2-D shapes (e.g. rectangles, circles and triangles) and 3-D shapes (e.g. cuboids (including cubes), pyramids and spheres).
	S1/20	20	Describe position, directions and movements, including whole, half, quarter and three-quarter turns.

## Numeracy Objectives of 2014 National Curriculum for Year 2

Place Value	S2/1	1	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward.
	S2/2	2	Recognise the place value of each digit in a two-digit number (tens, ones).
	S2/3	3	Identify, represent and estimate numbers using different representations, inc. the number line.
	S2/4	4	Compare and order numbers from 0 up to 100; use <, > and = signs.
	S2/5	5	Read and write numbers to at least 100 in numerals and in words.
Add/Sub	S2/6	6	Solve problems with addition and subtraction: using concrete objects and pictorial representations; applying their increasing knowledge of mental and written methods.
	S2/7	7	Recall and use add and subtract facts to 20 fluently, and derive and use related facts up to 100.
	S2/8	8	Add and sub nos using concrete objects, pictorial representations, and mentally, including: a 2-digit no and 1s or 10s; two 2-digit numbers; adding three 1-digit numbers.
	S2/9	9	Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
	S2/10	10	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.
Multi/Div	S2/11	11	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
	S2/12	12	Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.
	S2/13	13	Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
	S2/14	14	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
Frac	S2/15	15	Recognise, find, name, write $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{2}{4}$ , $\frac{3}{4}$ of a length, shape, set of objects or quantity.
	S2/16	16	Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ .
Measure	S2/17	17	Choose/use appropriate stand units to estimate/measure length/height (m/cm); mass (kg/g); temp (°C); cap (litres/ml) to nearest unit, using rulers, scales, thermometers and measuring vessels.
	S2/18	18	Compare and order lengths, mass, volume/capacity and record the results using >, < and = .
	S2/19	19	Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amounts of money.
	S2/20	20	Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.
	S2/21	21	Compare and sequence intervals of time.
	S2/22	22	Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.
Geometry	S2/23	23	Identify and describe the properties of 2-D shapes, including number of sides, symmetry in a vertical line.
	S2/24	24	Identify and describe the properties of 3-D shapes, including number of edges, vertices, faces.
	S2/25	25	Identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid.
	S2/26	26	Compare and sort common 2-D and 3-D shapes and everyday objects.
	S2/27	27	Order & arrange combinations of mathematical objects in patterns & sequences.
	S2/28	28	Use math vocab to describe position, direction & movement inc movement in a straight line and distinguishing rotation as a turn & in terms of right angles for $\frac{1}{4}$ , $\frac{1}{2}$ , & $\frac{3}{4}$ turns (clock/anti-clockwise).
Stat	S2/29	29	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.
	S2/30	30	Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity; ask and answer questions about totalling and comparing categorical data.

## Numeracy Objectives of 2014 National Curriculum for Year 3

Place Value	S3/1	1	Count from 0 in multiples of 4, 8, 50 and 100. Find 10 or 100 more or less than a given number.
	S3/2	2	Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).
	S3/3	3	Compare and order nos up to 1000. Read and write nos up to 1000 in numerals and in words.
	S3/4	4	Identify, represent and estimate numbers using different representations.
	S3/5	5	Solve number problems and practical problems involving these ideas.
Add/Sub	S3/6	6	Add and subtract numbers mentally, including: a 3-digit no and 1s, 10s, 100s.
	S3/7	7	Add and sub numbers with up to 3 digits, using formal written methods of columnar add and sub.
	S3/8	8	Estimate the answer to a calculation and use inverse operations to check answers.
	S3/9	9	Solve probs, inc missing no probs, using number facts, place value, and more complex add/sub.
Multi/Div	S3/10	10	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
	S3/11	11	Write & calc math statements for $\times$ & $\div$ using the tables they know, including 2 digit numbers times 1-digit numbers, using mental & formal written methods.
	S3/12	12	Solve probs & missing number probs, involving $\times$ & $\div$ , including integer scaling probs & correspondence probs in which n objects are connected to m objs.
Fractions	S3/13	13	Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts & in dividing one-digit numbers or quantities by 10.
	S3/14	14	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.
	S3/15	15	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
	S3/16	16	Recognise and show, using diagrams, equivalent fractions with small denominators.
	S3/17	17	Add and sub fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ ).
	S3/18	18	Compare and order unit fractions, and fractions with the same denominators.
Measure	S3/19	19	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
	S3/20	20	Measure the perimeter of simple 2-D shapes.
	S3/21	21	Add and subtract amounts of money to give change, using both £ and p in practical contexts.
	S3/22	22	Tell/write the time from an analogue clock, inc Roman numerals from I to XII, and 12-hr/24-hr.
	S3/23	23	Est. & read time with increasing acc. to nearest min; record/compare time in secs, mins, hrs. Use vocab such as o'clock, a.m/p.m, morn, aft, noon&midnight.
	S3/24	24	Know the no of seconds in a minute and the number of days in each month, year and leap year.
Geometry	S3/25	25	Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.
	S3/26	26	Recognise that angles are a property of shape or a description of a turn.
	S3/27	27	Iden. right angles, recog that 2 right angles make a $\frac{1}{2}$ turn, 3 make $\frac{3}{4}$ of a turn & 4 a comp. turn. Iden whether angs. are greater or less than a right ang.
	S3/28	28	Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
Stats	S3/29	29	Interpret and present data using bar charts, pictograms and tables.
	S3/30	30	Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using info presented in scaled bar charts & pictograms & tables.

## Numeracy Objectives of 2014 National Curriculum for Year 4

Place Value	S4/1	1	Count in multiples of 6, 7, 9, 25 and 1000.
	S4/2	2	Find 1000 more or less than a given number. Round any number to the nearest 10, 100 or 1000.
	S4/3	3	Count backwards through zero to include negative numbers.
	S4/4	4	Recognise the place value of each digit in a 4-digit number (thousands, hundreds, tens, and ones). Order and compare numbers beyond 1000.
	S4/5	5	Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.
Add/Sub	S4/6	6	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
	S4/7	7	Estimate and use inverse operations to check answers to a calculation.
	S4/8	8	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
Multi/Div	S4/9	9	Recall multiplication and division facts for multiplication tables up to $12 \times 12$ .
	S4/10	10	Recognise and use factor pairs and commutativity in mental calculations.
	S4/11	11	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.
	S4/12	12	Solve probs involving $\times$ and $+$ , inc. using the distributive law to mult 2 digit nos by 1 digit, integer scaling probs and harder correspondence probs such as $n$ objects are connected to $m$ objects.
Fractions	S4/13	13	Recognise and show, using diagrams, families of common equivalent fractions.
	S4/14	14	Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.
	S4/15	15	Add and subtract fractions with the same denominator.
	S4/16	16	Recognise and write decimal equivalents of any number of tenths or hundredths; and the decimal equivalents to $\frac{1}{4}$ , $\frac{1}{2}$ and three quarters.
	S4/17	17	Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.
	S4/18	18	Round decimals with one decimal place to the nearest whole number. Solve simple measure and money problems involving fractions and decimals to 2 decimal places.
Measure	S4/19	19	Convert between different units of measure (e.g. kilometre to metre). Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days).
	S4/20	20	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. Find the area of rectilinear shapes by counting squares.
	S4/21	21	Estimate, compare and calculate different measures, including money in pounds and pence.
	S4/22	22	Read, write and convert time between analogue and digital 12 and 24-hour clocks.
Geometry	S4/23	23	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
	S4/24	24	Identify acute and obtuse angles and compare and order angles up to two right angles by size.
	S4/25	25	Identify lines of symmetry in 2-D shapes presented in different orientations.
	S4/26	26	Complete a simple symmetric figure with respect to a specific line of symmetry.
	S4/27	27	Describe positions on a 2-D grid as coordinates in the first quadrant. Describe movements between positions as translations of a given unit to the left/right and up/down.
	S4/28	28	Plot specified points and draw sides to complete a given polygon.
Stats	S4/29	29	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
	S4/30	30	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

# Numeracy Objectives of 2014 National Curriculum for Year 5

Place Value	S5/1	1	Read, write, order & compare numbers to at least 1 000 000 and determine the value of each digit.
	S5/2	2	Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000. Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.
	S5/3	3	Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero.
	S5/4	4	Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
Add/Sub	S5/5	5	Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).
	S5/6	6	Add and subtract numbers mentally with increasingly large numbers.
	S5/7	7	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
Multi/Div	S5/8	8	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
	S5/9	9	Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19.
	S5/10	10	Multiply numbers up to 4 digits by a 1- or 2-digit number using a formal written method. Divide numbers up to 4 digits by a 1-digit number using the formal written method of short division.
	S5/11	11	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.
	S5/12	12	Recognise and use square numbers and cube numbers, and the notation for squared and cubed.
Fractions	S5/13	13	Compare and order fractions whose denominators are all multiples of the same number. Add and subtract fractions with the same denominator and multiples of the same number.
	S5/14	14	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.
	S5/15	15	Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $> 1$ as a mixed number.
	S5/16	16	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.
	S5/17	17	Round decimals with two decimal places to the nearest whole number and to one decimal place.
	S5/18	18	Read, write, order and compare numbers with up to three decimal places. Solve problems involving number up to three decimal places.
	S5/19	19	Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{5}$ , $\frac{2}{5}$ , $\frac{4}{5}$ and those with a denominator of a multiple of 10 or 25.
Measure	S5/20	20	Convert between different units of metric measure (e.g. km & m; cm & m; cm & mm; g & kg; l & ml). Use approx. equivalences between metric and imperial units (e.g. inches, pounds & pints).
	S5/21	21	Measure & calculate the perimeter of composite rectilinear shapes in cm/m. Calculate the area of squares/rectangles using standard units, square cm/m and estimate the area of irregular shapes.
	S5/22	22	Estimate volume (e.g. using 1 cm blocks to build cubes/cuboids) and capacity (e.g. using water).
	S5/23	23	Solve probs involving converting between units of time. Use all four operations to solve probs involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.
Geometry	S5/24	24	Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.
	S5/25	25	Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. Draw given angles, and measure them in degrees.
	S5/26	26	Identify: angles at a point and one whole turn (total $360^\circ$ ); angles at a point on a straight line and $\frac{1}{2}$ a turn (total $180^\circ$ ); other multiples of $90^\circ$ .
	S5/27	27	Use the properties of rectangles to deduce related facts and find missing lengths and angles.
	S5/28	28	Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.
Stats	S5/29	29	Solve comparison, sum and difference problems using information presented in a line graph.
	S5/30	30	Complete, read and interpret information in tables, including timetables.

# Numeracy Objectives of 2014 National Curriculum for Year 6

Place Value	S6/1	1	Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. Round any whole number to a required degree of accuracy
	S6/2	2	Use negative numbers in context, and calculate intervals across zero. Solve number and practical problems that involve all of the above.
Add/Sub/Multi/Div	S6/3	3	Multiply and divide numbers up to 4 digits by a 2-digit whole number using the formal written methods and interpret remainders as whole number remainders, fractions, or by rounding. Use of estimation to check answers to calculations
	S6/4	4	Identify common factors, common multiples and prime numbers
	S6/5	5	Use their knowledge of the order of operations to carry out calculations involving the four operations
	S6/6	6	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
Fractions	S6/7	7	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
	S6/8	8	Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
	S6/9	9	Multiply simple proper fractions and simplify the answer (e.g. $\frac{1}{4}$ , $\frac{1}{2}$ , $\frac{1}{8}$ ). Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$ )
	S6/10	10	Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places
	S6/11	11	Multiply one-digit numbers with up to two decimal places by whole numbers. Use written division methods in cases where the answer has up to two decimal places
	S6/12	12	Recall and use equivalences between simple fractions, decimals, percentages, incl. different contexts.
R & P	S6/13	13	Solve problems involving the calculation of percentages (e.g. of measures) such as 15% of 360 and the use of percentages for comparison
	S6/14	14	Solve problems involving similar shapes where the scale factor is known or can be found. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
Algebra	S6/15	15	Express missing number problems algebraically. Use simple formulae expressed in words.
	S6/16	16	Generate and describe linear number sequences.
	S6/17	17	Find pairs of numbers that satisfy number sentences involving two unknowns. Enumerate all possibilities of combinations of two variables.
Measure	S6/18	18	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. Convert between miles and km.
	S6/19	19	Use, read, write & convert between standard units of measure, converting length, mass, volume & time from smaller to larger units, and vice versa, using decimal notation to up to 3 dec places
	S6/20	20	Recognise that shapes with the same areas can have different perimeters and vice versa
	S6/21	21	Calculate the area of parallelograms and triangles. Recognise when it is possible to use formulae for area and volume of shapes
	S6/22	22	Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm <sup>3</sup> ) and cubic metres (m <sup>3</sup> ), and extending to other units
Geometry	S6/23	23	Draw 2-D shapes using given dimensions and angles. Recognise, describe and build simple 3-D shapes, including making nets.
	S6/24	24	Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.
	S6/25	25	Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.
	S6/26	26	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
P & D	S6/27	27	Describe positions on the full coordinate grid (all four quadrants).
	S6/28	28	Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
Stats	S6/29	29	Interpret and construct pie charts and line graphs and use these to solve problems.
	S6/30	30	Calculate and interpret the mean as an average.