

Year 4 Maths Checklist

These Twinkl Maths checklists link to the expectations set out in the 2014 English National Curriculum for Mathematics and also include reference to the guidance set out in Maths Appendix 1. They are split into:

- Working Towards the Expected Standard
- Working at the Expected Standard
- Working at Greater Depth Within the Expected Standard

All of the statements are progressive within and across the year groups, and work on the expectation that the majority of pupils will be working on their own year group's aims. Consequently, Twinkl have tried to ensure that the criteria for Working Towards the Expected Standard in one year group is not the same as the criteria for Working at Greater Depth in the previous year group. The criteria for Working Towards and Working at Greater Depth in any year group is related to that year group's National Curriculum expectations.

It is important to reiterate that there are no DfE-published exemplification assessment documents available for Years 1, 3, 4 and 5, and therefore the Twinkl Maths checklists should only be used as a guide for referencing the attainment of pupils within these year groups.

Teachers may feel the need to revisit expectations from earlier years to consolidate knowledge and build on pupils' understanding, or go beyond the aims set out here if they feel it is appropriate for their highest-attaining students.

How to Use the Checklists

The grids can be used to track the attainment of individual pupils or alternatively, could be used to highlight the progress of groups of students who are focusing on the same development areas or Maths targets.

They allow teachers to make 'best fit' judgements by ticking and dating relevant criteria as a child/group progresses throughout a term or school year.

Teachers may find the Differentiated Maths Mats useful in providing more detail and exemplification.

Working Towards	Expected	Greater Depth
In most cases, the objective will be simplified, by cutting aspects out, or by using smaller numbers etc. These can be seen as a step towards the expected standard. Where the objective is the same, it may be that greater adult support is required than for the expected standard.	These are the objectives from the National Curriculum. Teachers will need to make their own decisions about the level of competency required to be at the expected standard. Possible examples can be found on the Differentiated Maths Mats for each mathematical area.	In many cases, the objective is similar or the same as the expected standard. Greater depth means children explaining and reasoning, enabling them to deepen their mathematical understanding. Possible examples can be found on the Differentiated Maths Mats for each mathematical area.
Number and Place Value		
Count in multiples of 6, 9 and 1000.	Count in multiples of 6, 7, 9, 25 and 1000.	Count in multiples of 6, 7, 9, 25 and 1000 <i>from any number.</i>
Find 1000 more or less than a given number.	Find 1000 more or less than a given number.	Find 1000 more or less than a given number.
Count backwards to zero.	Count backwards through zero to include negative numbers.	Count backwards though zero to include negative numbers <i>and forwards from -10 through 0.</i>
Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).
Order and compare numbers to 1000.	Order and compare numbers beyond 1000.	Order and compare numbers beyond 1000 <i>and explain.</i>
Identify, represent and estimate numbers using different representations.	Identify, represent and estimate numbers using different representations.	Identify, represent and estimate numbers using different representations.
Round any number to the nearest 10 or 100.	Round any number to the nearest 10, 100 or 1000.	Round any number to the nearest 10, 100 or 1000.
Solve number and practical problems that involve all of the above and with increasingly large positive numbers.	Solve number and practical problems that involve all of the above and with increasingly large positive numbers.	Solve number and practical problems that involve all of the above and with increasingly large positive numbers.

Read Roman numerals to 10 (I to X).		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.		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.	
Addition and Subtraction					
Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.		Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.		Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.	
Estimate and use inverse operations to check answers to a <i>simple</i> calculation.		Estimate and use inverse operations to check answers to a calculation.		Estimate and use inverse operations to check answers to a calculation.	
Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.		Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.		Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	
Multiplication and Division					
Recall multiplication and division facts for <i>the 2, 3, 4, 5 and 10</i> multiplication tables.		Recall multiplication and division facts for multiplication tables up to 12×12 .		Recall and use multiplication and division facts for multiplication tables up to 12×12 .	
Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.		Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.		Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.	
Recognise and use factor pairs to 20 and commutativity in mental calculations <i>by reversing the multipliers</i> .		Recognise and use factor pairs and commutativity in mental calculations.		Recognise and use factor pairs and commutativity in mental calculations.	
Multiply two-digit numbers by a one-digit number using formal written layout.		Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.		Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.	

Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit and integer scaling problems.	Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.
Fractions		
Recognise and show, using diagrams, families of common equivalent fractions.	Recognise and show, using diagrams, families of common equivalent fractions.	Recognise, families of common equivalent fractions.
Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	Count up and down in hundredths; <i>apply your understanding</i> that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
Solve problems that involve fractions to calculate quantities, and fractions to divide quantities.	Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.	Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.
Add and subtract fractions with the same denominator.	Add and subtract fractions with the same denominator.	Add and subtract fractions with the same denominator, <i>using knowledge of common equivalents to write the answers in a simpler form.</i>
Recognise and write decimal equivalents of any number of tenths.	Recognise and write decimal equivalents of any number of tenths or hundredths.	Recognise and write decimal equivalents of any number of tenths or hundredths.
Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$.	Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$.	Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, <i>using them in real-life examples.</i>

Find the effect of dividing a one- or two-digit number by 10, identifying the value of the digits in the answer as ones, tenths and hundredths.	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.	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.
Round decimals with one decimal place to the nearest whole number.	Round decimals with one decimal place to the nearest whole number.	Round decimals with one decimal place to the nearest whole number.
Compare numbers with one decimal place.	Compare numbers with the same number of decimal places up to two decimal places.	Compare numbers with the same number of decimal places, <i>explaining your answer</i> .
Solve simple measure and money problems involving fractions and decimals to two decimal places.	Solve simple measure and money problems involving fractions and decimals to two decimal places.	Solve simple measure and money problems involving fractions and decimals to two decimal places.
Measurement		
Convert between different units of measure [for example, kilometre to metre; hour to minute].	Convert between different units of measure [for example, kilometre to metre; hour to minute].	Convert between different units of measure [for example, kilometre to metre; hour to minute].
Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
Find the area of <i>rectangles</i> by counting squares.	Find the area of rectilinear shapes by counting squares.	Find the area of rectilinear shapes by counting squares.
Estimate, compare and calculate different measures, including money in pounds and pence.	Estimate, compare and calculate different measures, including money in pounds and pence.	Estimate, compare and calculate different measures, including money in pounds and pence.
Read, write and convert time between analogue and digital 12-hour clocks.	Read, write and convert time between analogue and digital 12- and 24-hour clocks.	Read, write and convert time between analogue and digital 12- and 24-hour clocks.
Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

Geometry - Shape				
Compare and classify quadrilaterals and triangles based on their properties and sizes.		Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.		Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
Identify acute angles and compare and order angles up to one right angle by size.		Identify acute and obtuse angles and compare and order angles up to two right angles by size.		Identify acute and obtuse angles and compare and order angles up to two right angles by size.
Identify lines of symmetry in 2D shapes <i>about a vertical line of symmetry</i> .		Identify lines of symmetry in 2D shapes presented in different orientations.		Identify lines of symmetry in 2D shapes presented in different orientations.
Complete a simple symmetric figure with respect to a specific line of symmetry.		Complete a simple symmetric figure with respect to a specific line of symmetry.		Complete a symmetric figure with respect to a specific line of symmetry
Geometry – Position and Direction				
Plot positions on a 2D grid as coordinates in the first quadrant.		Describe positions on a 2D grid as coordinates in the first quadrant.		Describe positions on a 2D grid as coordinates in the first quadrant.
Describe <i>simple</i> movements between positions as translations of a given unit to the left/right and up/down.		Describe movements between positions as translations of a given unit to the left/right and up/down.		Describe movements between positions as translations of a given unit to the left/right and up/down.
Plot specified points and draw sides to complete a given polygon.		Plot specified points and draw sides to complete a given polygon.		Plot specified points and draw sides to complete a given polygon.
Statistics				
Interpret and present discrete data using appropriate graphical methods, including bar charts and time graphs.		Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.		Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
Solve <i>simple</i> comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.		Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.		Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.