

What I need to know: Y4 Maths



*We aim to be the school of choice for our community.
Through living our Christian values, everyone at WCEJS has the opportunity to flourish.
We nurture the curiosity to learn, the courage to lead and the compassion to care.*

Building solid foundations (Matthew 7: 24-27)

Name:

Class:

In Y4 you will learn more about; number and place value; the basic operations of addition, subtraction, multiplication and division; fractions and decimals; measurement; shape, position and direction; statistics.

Skills I may use when learning maths	
Remember: name, identify, describe	Analyse: investigate, infer, select, clarify
Understand: predict, recall, interpret	Create: plan, design, construct
Apply: use, show, relate, demonstrate	Evaluate: compare, assess, judge

1. What I will know about number and place value	Start	End
Count from 0 in multiples of 6, 7 and 9	<input type="radio"/>	<input type="radio"/>
Count from 0 in multiples of 25 and 1000	<input type="radio"/>	<input type="radio"/>
Find 1000 more or less than a given number	<input type="radio"/>	<input type="radio"/>
Count backwards through 0 to include negative numbers	<input type="radio"/>	<input type="radio"/>
Recognise the place value of each digit in a four-digit number (ThHTO)	<input type="radio"/>	<input type="radio"/>
Compare and order numbers beyond 1000	<input type="radio"/>	<input type="radio"/>
Identify, represent and estimate numbers using different representations	<input type="radio"/>	<input type="radio"/>
Round any number to the nearest 10, 100 or 1000	<input type="radio"/>	<input type="radio"/>
Solve number / practical problems involving all the above with increasingly large positive numbers	<input type="radio"/>	<input type="radio"/>
Read Roman numerals to 100 (I to C)	<input type="radio"/>	<input type="radio"/>
Know that the numeral system changed to include the concept of 0 and place value	<input type="radio"/>	<input type="radio"/>

Vocabulary I need to know...
How well do you know the following words? 1. I have heard the word, but I don't know what it means 2. I understand what the word means 3. I can explain what the word means and give other examples
decimal place, decimal point, place value, ones, tens, hundreds, thousands, million, tenths, hundredths, numeral, rounding
Resources I can use to help me
Place value flip chart, place value slider, Dienes blocks (base 10), abacus, place value counters, multi-link cubes

2. What I will know about addition and subtraction	Start	End
Add and subtract numbers using concrete objects, pictorial representations, mental and formal strategies	<input type="radio"/>	<input type="radio"/>
Add numbers with up to four digits, using formal written methods of columnar addition	<input type="radio"/>	<input type="radio"/>
Subtract numbers with up to four digits, using formal written methods of columnar subtraction	<input type="radio"/>	<input type="radio"/>
Estimate the answer to a calculation	<input type="radio"/>	<input type="radio"/>
Use inverse operations to check answers	<input type="radio"/>	<input type="radio"/>
Solve addition and subtraction two-step problems, choosing appropriate operations and methods	<input type="radio"/>	<input type="radio"/>
3. What I will know about multiplication and division	Start	End
Recall multiplication and division facts for tables up to 12 x 12	<input type="radio"/>	<input type="radio"/>
Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1	<input type="radio"/>	<input type="radio"/>
Multiply together three numbers	<input type="radio"/>	<input type="radio"/>
Recognise and use factor pairs and commutativity in mental calculations	<input type="radio"/>	<input type="radio"/>
Multiply two-digit numbers by a one-digit number using formal written layout	<input type="radio"/>	<input type="radio"/>
Multiply three-digit numbers by a one-digit number using formal written layout	<input type="radio"/>	<input type="radio"/>
Solve problems involving multiplying and adding, including using the distributive law to multiply 10×0 , ratio problems and harder correspondence problems such as n objects are connected to m objects.	<input type="radio"/>	<input type="radio"/>
Vocabulary I need to know...		
prime number, factor, prime factor, composite number, inverse, commutative, distributive		
Resources I can use to help me		
Multi-link cubes, abacus, counters, times table square, number square, Numicon		

4. What I will know about fractions and decimals	Start	End
Recognise and show, using diagrams, families of common equivalent fractions	<input type="radio"/>	<input type="radio"/>
Count up and down in hundredths	<input type="radio"/>	<input type="radio"/>
Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten	<input type="radio"/>	<input type="radio"/>
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	<input type="radio"/>	<input type="radio"/>
Add and subtract fractions with the same denominator	<input type="radio"/>	<input type="radio"/>
Recognise and write decimal equivalents of any number of tenths or hundredths	<input type="radio"/>	<input type="radio"/>
Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$	<input type="radio"/>	<input type="radio"/>
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	<input type="radio"/>	<input type="radio"/>
Round decimals with one decimal place to the nearest whole number	<input type="radio"/>	<input type="radio"/>
Compare numbers with the same number of decimal places up to two decimal places	<input type="radio"/>	<input type="radio"/>
Solve simple measure and money problems involving fractions and decimals to two decimal places	<input type="radio"/>	<input type="radio"/>
Vocabulary I need to know...		
Fraction, decimal, decimal point, numerator, denominator, mixed fraction, simplify, compare, order, equivalent, convert, proper fraction, improper fraction, common fraction, tenths, hundredths, thousandths		
Resources I can use to help me		
Fraction wall, multi-link cubes, counters, times table square		

5. What I will know about measurement	Start	End
Convert between different units of measure	<input type="radio"/>	<input type="radio"/>
Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	<input type="radio"/>	<input type="radio"/>
Find the area of rectilinear shapes by counting squares	<input type="radio"/>	<input type="radio"/>
Estimate, compare and calculate different measures, including money in pounds and pence	<input type="radio"/>	<input type="radio"/>
Read, write and convert time between analogue and digital 12-hour clocks	<input type="radio"/>	<input type="radio"/>
Read, write and convert time between (analogue and digital) 12 and 24-hour clocks	<input type="radio"/>	<input type="radio"/>
Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	<input type="radio"/>	<input type="radio"/>
Vocabulary I need to know...		
Convert, metric, imperial, ounces, pounds, stones, tons, milligrams, grams, kilograms, tonnes, inch, yard, mile, millimetre, centimetre, metre, kilometre, seconds, minutes, hours, days, weeks, fortnight, months, years, decades, century, area, volume, compound, angle, degrees, polygon, reflection, translation		
Resources I can use to help me		
Rulers, measuring tapes, measuring cylinders, balance scales, money, class clock		

6. What I will know about shape, position and direction	Start	End
Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	<input type="radio"/>	<input type="radio"/>
Identify acute and obtuse angles	<input type="radio"/>	<input type="radio"/>
Compare and order angles up to two right angles by size	<input type="radio"/>	<input type="radio"/>
Identify lines of symmetry in 2-D shapes presented in different orientations	<input type="radio"/>	<input type="radio"/>
Complete a simple symmetric figure with respect to a specific line of symmetry	<input type="radio"/>	<input type="radio"/>
Describe positions on a 2-D grid as coordinates in the first quadrant	<input type="radio"/>	<input type="radio"/>
Describe movements between positions as translations of a given unit to the left/right and up/down	<input type="radio"/>	<input type="radio"/>
Plot specified points and draw sides to complete a given polygon	<input type="radio"/>	<input type="radio"/>
Vocabulary I need to know...		
reflection, translation, coordinates, y axis, x axis, plot, point		
Resources I can use to help me		
2D shapes, 3D shapes, right angle checker		

7. What I will know about statistics	Start	End
Interpret discrete data using appropriate graphical methods, including bar charts	<input type="radio"/>	<input type="radio"/>
Interpret continuous data using appropriate graphical methods, including time graphs	<input type="radio"/>	<input type="radio"/>
Present discrete data using appropriate graphical methods, including bar charts	<input type="radio"/>	<input type="radio"/>
Present continuous data using appropriate graphical methods, including time graphs	<input type="radio"/>	<input type="radio"/>
Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	<input type="radio"/>	<input type="radio"/>
Vocabulary I need to know...		
Discrete, continuous, bar chart, graph, table, pictogram		
Resources I can use to help me		
Ruler, multi-link cubes		