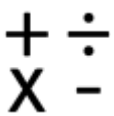
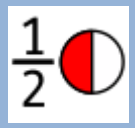
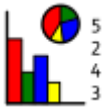
Donnington Wood CE Junior School	Our School Vision	Our core values
	Our school is a community where each person is valued as a child of God. We are a Church of England school, inspired and guided by the life and teaching of Jesus. We work together to create a caring, friendly and safe school family, to enable the whole school community to flourish and each person reach their full God-given potential.	**friendship** **hope** **perseverance**
Our Motto "*The ones who plant and the ones who water work together as a team with the same purpose*." **1 Corinthians 3:8** We believe that with God's help when we all work as a TEAM - Together Everyone Achieves More.		

Progression of knowledge in Maths

Adapted from the NCETM

Key Concepts/Golden threads

Subject concepts act as coat-hangers to hook information onto and ***'Golden threads'*** that run throughout the curriculum. This allows the pupils to store this knowledge into the long term memory and to remember for longer. Developed on research by Jan Meyer and Ray Land (2003), the use of concepts in our curriculum are used to capture the most important essence (knowledge) of the subject. The same concepts are explored in every year group and students will gradually increase their understanding of them.

Number and place value	Four operations	Fractions, decimals and percentages	Measurement	Properties of shape	Position and direction	Statistics	Algebra	Ratio and proportion
							$a^2+b^2=c^2$	4:3

KEY CONCEPT: FRACTIONS, DECIMALS AND PERCENTAGES						
Strands	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
Counting in fractional steps			I can count up and down in tenths.	I can count up and down in hundredths.		
Recognising fractions	I can recognise, find and name a half as one of two equal parts of an object, shape or quantity.	I can recognise, find, name and write fractions $^{1}/_{3}$, $^{1}/_{4}$, $^{2}/_{4}$ and $^{3}/_{4}$ of a length, shape, set of objects or quantity.	I can recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.	I can recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.	
	I can recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.		I can recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10.			
	I can recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.		I can recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.			
Comparing fractions			I can compare and order unit fractions, and fractions with the same denominators.		I can compare and order fractions whose denominators are all multiples of the same number.	I can compare and order fractions, including fractions >1.

Equivalence (including fractions, decimals and percentages)		I can write simple fractions e.g. $^1/_2$ of 6 = 3 and recognise the equivalence of $^2/_4$ and $^1/_2$.	I can recognise and show, using diagrams, equivalent fractions with small denominators.	I can recognise and show, using diagrams, families of common equivalent fractions.	I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.	I can use common multiples to express fractions in the same denomination. I can use common factors to simplify fractions.
				I can recognise and write decimal equivalents of any number of tenths or hundredths.	I can read and write decimal numbers as fractions (e.g.0.71 = 71/100).	
				I can recognise and write decimal equivalents to ½; ¼; ¾.	I can recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred'.	I can recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
					I can write percentages as a fraction with denominator 100 as a decimal fraction.	
Addition and subtraction of fractions			I can add and subtract fractions with the same denominator within one whole (e.g. 5/7 + 1/7 = 6/7).	I can add and subtract fractions with the same denominator, including over one whole.	I can add and subtract fractions with the same denominator and multiples of the same number.	I can add and subtract fractions with different denominators, using the concept of equivalent fractions.
					I can recognise mixed numbers and improper fractions and convert from one form to the	I can add and subtract fractions with mixed numbers, using the concept of

					other and write statements > 1 as a mixed number.	equivalent fractions.
Multiplication and division of fractions					I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	I can multiply simple pairs of proper fractions, writing the answer in its simplest form.
						I can divide proper fractions by whole numbers.
Comparing decimals				I can compare numbers with the same number of decimal places up to two decimal places.	I can read, write, order and compare numbers with up to three decimal places.	I can identify the value of each digit in numbers given to three decimal places.
Rounding, including decimals				I can round decimals with one decimal place to the nearest whole number.	I can round decimals with two decimal places to the nearest whole number and to one decimal place.	I can solve problems which require answers to be rounded to specified degrees of accuracy.
Multiplication and division of decimals						I can multiply one-digit numbers with up to two decimal places by whole numbers.
				I can 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,	I can multiply and divide numbers by 10, 100 and 1000 where the answers are up to two decimal places.	I can multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places.

				tenths and hundredths.		
						I can associate a fraction with division and calculate decimal fraction equivalents for a simple fraction.
						I can use written division methods in cases where the answer has up to two decimal places.
Problem solving			I can solve problems that involve all of the above.	I can 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.	I can solve problems involving numbers up to three decimal places.	
				I can solve simple measure and money problems involving fractions and decimals to two decimal places.	I can solve problems which require knowing 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.	