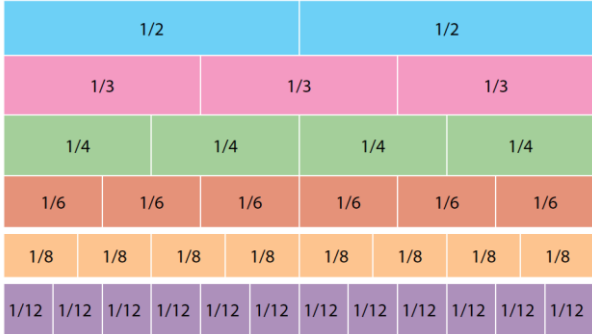

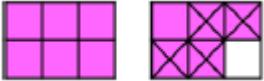


Godmanchester Community Academy Maths Progression

Year 4												
Place Value	4 operations (+, -, x, ÷)	Fractions										
<p>Count in multiples of: 2, 3, 4, 5, 6, 7, 8, 9, 10, 25, 50, 100, and 1000</p> <p>Count backwards through 0 to include negative numbers e.g. 4, 3, 2, 1, 0, -1, -2, -3 ...</p> <p>Read Roman numerals to 100 (I to C)</p> <p>Find 1000 more and less than a given number.</p> <p>Know the value of each digit in a 4 digit number thousands (th), hundreds (h), tens (t) and ones (o) e.g. 826 has 8 hundreds, 2 tens and 6 ones The value of the 8 is 800, the value of the 2 is 20 and the value of the 6 is 6.</p> <p>Compare and order numbers beyond 1000</p> <p>Round any number to the nearest 10, 100 and 1000</p>	<p>Using column written method (more detail on methods in calculation policy): add and subtract numbers with up to four-digits e.g. $3425 + 2723 =$, $7362 - 174 =$, $4487 - 134 =$</p> <p>Know multiplication and division facts multiplication tables up to 12x 12 e.g. $6 \times 7 = 42$, $7 \times 6 = 42$ and $42 \div 6 = 7$, $42 \div 7 = 6$</p> <p>Solve addition and subtraction two step problems in context, deciding which operation (+, -, x, ÷) to use.</p> <p>Recognise and use factor pairs e.g. $5 \times 3 = 15$ (factor x factor = product) factor pairs of 12 are: 1 x 12, 2 x 6, 3 x 4</p> <p>Multiply two-digit and three-digit numbers by a one-digit number (More details on calculation policy) e.g. $35 \times 7 =$, $372 \times 8 =$</p> <p>Solve correspondence problems Please note this builds on Y3 scaling problem. e.g. An ice-cream van has 4 flavours of ice-cream and 2 choices of toppings.</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 2px;">Ice-cream flavour</th> <th style="padding: 2px;">Toppings</th> </tr> </thead> <tbody> <tr> <td style="padding: 2px;">Vanilla</td> <td style="padding: 2px;">Sauce</td> </tr> <tr> <td style="padding: 2px;">Chocolate</td> <td style="padding: 2px;">Flake</td> </tr> <tr> <td style="padding: 2px;">Strawberry</td> <td></td> </tr> <tr> <td style="padding: 2px;">Banana</td> <td></td> </tr> </tbody> </table> <p>How many different combinations of ice-cream and toppings can be made?</p>	Ice-cream flavour	Toppings	Vanilla	Sauce	Chocolate	Flake	Strawberry		Banana		<p>Count up and down in hundredths.</p> <p>Know that hundredths are a result of dividing an object into one hundred equal parts or by dividing tenths by ten</p> <p>Recognise and use diagrams to show families of common equivalent fractions</p>  <p>Add and subtract fractions with the same denominator e.g.</p> $\frac{3}{5} + \frac{4}{5} = \frac{7}{5}$  $\frac{11}{6} - \frac{4}{6} = \frac{7}{6}$ 
Ice-cream flavour	Toppings											
Vanilla	Sauce											
Chocolate	Flake											
Strawberry												
Banana												

Decimals

Recognise and write decimal equivalents of any number of tenths or hundredths

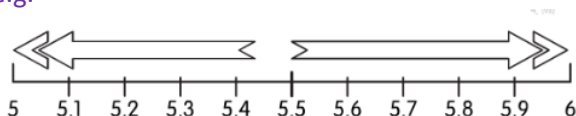
Recognise and write decimal equivalents to $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$

e.g.

1.0					
$\frac{1}{2}$					0.5
$\frac{1}{3}$	0.33				$\frac{1}{3}$
$\frac{1}{4}$	0.25				$\frac{1}{4}$
0.2	$\frac{1}{5}$	0.2	$\frac{1}{5}$	0.2	
$\frac{1}{6}$	0.166	$\frac{1}{6}$	0.166	$\frac{1}{6}$	0.166
0.125	$\frac{1}{8}$	0.125	$\frac{1}{8}$	0.125	$\frac{1}{8}$
$\frac{1}{10}$	0.1	$\frac{1}{10}$	0.1	$\frac{1}{10}$	0.1
0.083	$\frac{1}{12}$	0.083	$\frac{1}{12}$	0.083	$\frac{1}{12}$

Round decimals with one decimal place to the nearest whole number

e.g.



Compare numbers with the same number of decimal places up to 2 decimal places.

Find the effect of dividing a one-or-two-digit number by 10 or 100 and identify the value of the number in the answer as ones, tenths and hundredths e.g.

Multiplying and Dividing by 10, 100 and 1000

10 000	1000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$

Multiplying

X 10
X 100
X 1000

Dividing

+ 10
+ 100
+ 1000

digits move RIGHT 1 space
digits move RIGHT 2 spaces
digits move RIGHT 3 spaces



Measurement – Measures and Time

Convert between different units of measure

e.g.

2 kilometres is equal to 2000 metres

3 hours is equivalent to 180 minutes

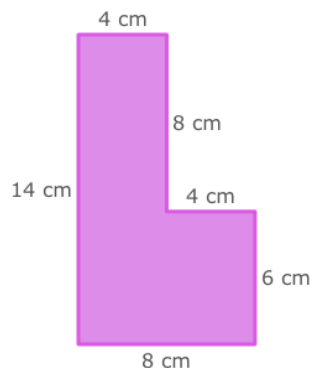
Read, write and convert time between analogue and digit, and 12-hour and 24-hour clocks

Solve problems that involve converting hours to minutes, minutes to seconds, years to months, weeks to weeks

Measure and calculate the perimeter of a rectilinear figure in centimetres(cm) and metres(m)

e.g. The perimeter of this rectilinear shape is

$$4\text{cm} + 14\text{cm} + 8\text{cm} + 6\text{cm} + 4\text{cm} + 8\text{cm} = 44\text{cm}$$



Find the area of a rectilinear shape by counting the squares.

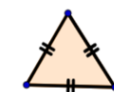
e.g. The area of this shape is 14cm^2



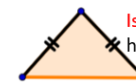
Geometry – shapes and angles

Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and size.

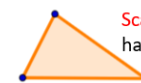
e.g. types of triangles



Equilateral Triangle
has three equal sides



Isosceles Triangle
has two equal sides



Scalene Triangle
has no equal sides

examples of quadrilaterals



Square



Rectangle



Rhombus



Trapezium



Parallelogram



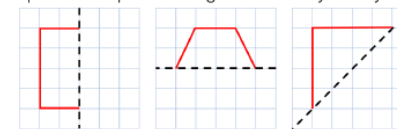
Kite

Identify lines of symmetry in 2d shapes presented in different orientations

Complete a simple symmetric figure with respect to a specific line of symmetry

e.g.

Complete the shapes according to the line of symmetry.



Identify acute and obtuse angles

e.g.



Acute angle
Less than 90°



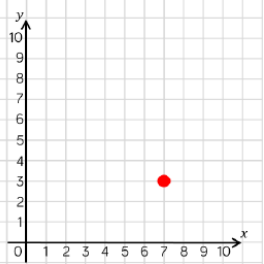
Obtuse angle
More than 90°
Less than 180°

Compare and order acute, right and obtuse angles by size.

Geometry – Position and Direction

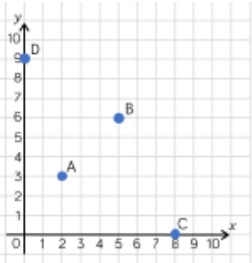
Describe positions on a 2d grid as co-ordinates in the first quadrant (The second third and fourth quadrants are introduced in Year 5)

e.g. The point is plotted at 7,3



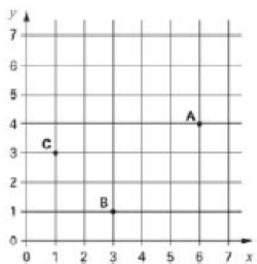
Describe movements between positions as translations to the left/right, and up/down

e.g. Point A has been translated up 3 and right 3.



Plot specified points and draw sides to complete a given polygon.

e.g. A B and C are three corners of a rectangle. What are the coordinates of the fourth corner?

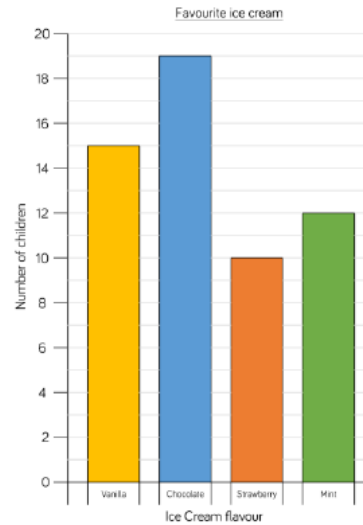


Statistics

Understand and make discrete and continuous data, including bar charts and time graphs

e.g.

Bar Charts



Time Graphs

