



Year 5 - Summer Term - Maths Focus Areas



Each term, we have identified three areas which are a key focus to children being ready to progress in Maths in the next term. In order for children to fully embed this knowledge, we recommend little and often practice. Little and often at home and at school will help your child become fluent in these milestones and focus areas.

Composition of number milestone

Multiplying and dividing a number (with up to 2-decimal places) by 100

Children recognise that when multiplying or dividing numbers by powers of 10 sees the number move to the left (when multiplying) and to the right (when dividing) along the place value chart. They will also understand that when carrying this out with 100 we will move 2-place values columns with each number increasing by the same number of times.

H	T	O	t	h
100s	10s	1s	0.1s	0.01s
		3	2	1
3	2	1		

Diagram illustrating multiplication by 100. The top row shows the number 321 in a place value chart (H: 100s, T: 10s, O: 1s, t: 0.1s, h: 0.01s). Red arrows labeled 'x 100' show the digits moving two places to the left: 3 moves from O to H, 2 from t to T, and 1 from h to O.

They will also understand that if a number is made greater that a placeholder is included in the column to the right where no value is shown.

H	T	O	t	h
100s	10s	1s	0.1s	0.01s
		0	4	
	4	0		

Diagram illustrating multiplication by 100. The top row shows the number 04 in a place value chart (H: 100s, T: 10s, O: 1s, t: 0.1s, h: 0.01s). A red arrow labeled 'x 100' shows the digits moving two places to the left: 0 moves from O to H, and 4 moves from t to T. A blue arrow points to the 0 in the O column of the bottom row.

Add in a place holder to show that the column holds no value

Children should be able to read that making a number 100 times greater or smaller is the same as multiplying or dividing by 10 and then 10 times again.

H	T	O	t	h
100s	10s	1s	0.1s	0.01s
		3		
3	0	0		

$$10 \times 10 = 100$$

Lastly, children will understand that dividing by the same value see the number move by the same number of place value columns, just in the opposite direction as to decrease its value/size. We must then include a decimal point when our number or part of our number is no longer represented as a whole number, but instead a part. Children also know to include a placeholder in the ones column if no value is here once it has been altered - this occurs in the ones column only.

H	T	O	t	h
100s	10s	1s	0.1s	0.01s
	6	7		
		0	6	7

Place holder to show that no value is held in the ones column once the number has been decreased in size

Decimal point is include to show the sectioning of whole numbers and parts

Multiplicative thinking milestone

Factors and common factors.

Children are to understand that a factor is any whole number multiplied by another whole number to equal a product. For example, the factors of 3 and 4 are equal to the product of 12.

When children identify factors at Monkhouse, we encourage them to work in a 'systematic' way, beginning with 1 times... They can also approach this in thinking how many times does a number go into another. For example, when identifying the factors of 21 we may go on to recognise that 3 goes into 21, 7 times. So 3 and 7 are both factors of 21.

Children need to acknowledge that they have found all factors once previous factors become repeated or when a number multiplied by itself equal the product - square numbers.

When identifying common factors, children identify the factors of 2 products and then highlight the factors that both products share.

Find the factors of...

<u>12</u>	Systematic approach, beginning with 1 x...	<u>16</u>
1 x 12		1 x 16
2 x 6		2 x 8
3 x 4		4 x 4
4 x ...		↑ ↑
↑		Factor multiple by itself
Repeating factors		

Find the common factors of...

<u>12</u>	<u>16</u>
① x 12	① x 16
② x 6	② x 8
3 x ④	4 x ④
4 x ...	
The common factors of 12 and 16 are... 1, 2 and 4	

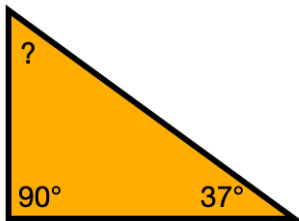
Other milestone

Calculate angles in a triangle and a straight line.

Children will recognise that the total degrees in a triangle and a straight line both add up to 180°.

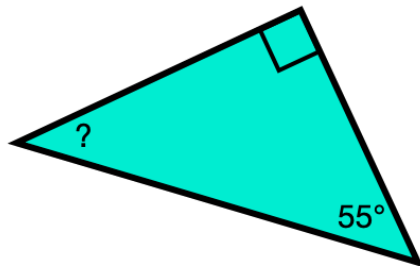
Triangles:

When looking at triangles, children will be presented with different triangle types, however will be given some information to support them identifying unknown angles. On occasions, children may need to identify that a triangle has a right angle to support calculations. They will use mental strategies as well as a range of formal methods in order to solve any unknowns.



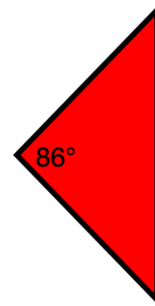
$$90^\circ + 37^\circ = 127^\circ$$

$$\begin{array}{r} 180^\circ \\ - 127^\circ \\ \hline 53^\circ \end{array}$$



$$90^\circ + 55^\circ = 145^\circ$$

$$180^\circ - 145^\circ = 35^\circ$$

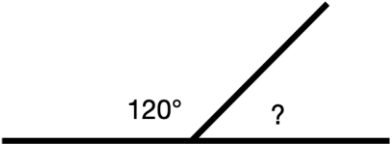
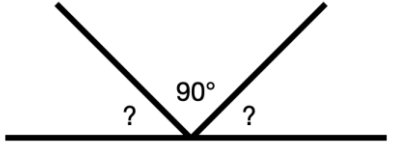
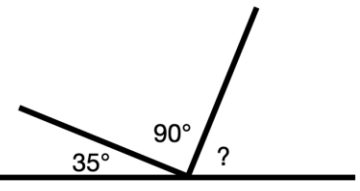


$$180^\circ - 86^\circ = 94^\circ$$

$$\begin{array}{r} 47^\circ \\ 2 \overline{) 94^\circ} \end{array}$$

Straight lines:

When looking at straight lines, children will be given some information to support them identifying unknown angles. On occasions, children may need to identify that a triangle has a right angle to support calculations totalling to 180°.

 <p style="margin-top: 10px;">$180^\circ - 120^\circ = 60^\circ$</p>	 <p style="margin-top: 10px;">$180^\circ - 90^\circ = 90^\circ$</p> <p style="margin-top: 10px;">$\frac{45^\circ}{2 \overline{) 90^\circ}}$</p>	 <p style="margin-top: 10px;">$35^\circ + 90^\circ = 125^\circ$</p> <p style="margin-top: 10px;">$180^\circ - 125^\circ = 55^\circ$</p>
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These areas will form part of your child's shared learning weekly. Please can you keep an additional focus on these areas where possible.