

# Year 6 Herons

## Maths

### Spring 1

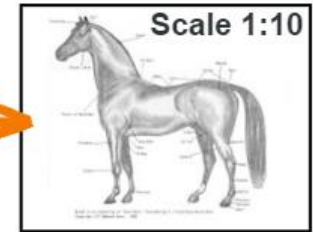
Ratio;  
Algebra;  
and  
Decimals



Key Vocabulary	Definition
<b>Algebra</b>	Algebra uses letters (like x or y) or other symbols in place of values, and then plays with them using special rules.
<b>Colon</b>	A mathematical symbol (:) which is used to show ratio.
<b>Decimal</b>	Often used to mean a number that uses a decimal point followed by digits that show a value smaller than one.
<b>Equation</b>	An equation says that two things are equal. It will have an equals sign "=" like this: $7 + 2 = 10 - 1$
<b>Expression</b>	Numbers, symbols and operators (such as + and $\times$ ) grouped together that show the value of something.
<b>Factor</b>	Numbers we can multiply together to get another number. Example: 2 and 3 are factors of 6, because $2 \times 3 = 6$
<b>Formula</b>	A rule or fact written with mathematical symbols. Formulae is plural
<b>Hundredth</b>	When a whole is split into hundred equal parts. Can be represented as a fraction ( $\frac{1}{100}$ ) or as a decimal (0.01)
<b>Inverse Operation</b>	The operation that reverses the effect of another operation. Example: Addition and subtraction are inverse operations. Start with 7, then add 3 we get 10, now subtract 3 and we get back to 7
<b>Polygon</b>	A plane shape (two-dimensional) with straight sides. Examples: triangles, rectangles and pentagons.
<b>Ratio</b>	A ratio shows the relative sizes of two or more values.
<b>Round</b>	Rounding means making a number simpler but keeping its value close to what it was. The result is less accurate, but easier to use. Example: 73 rounded to the nearest ten is 70, because 73 is closer to 70 than to 80. But 76 goes up to 80.
<b>Scale</b>	The ratio of the length in a drawing (or model) to the length on the real thing
<b>Tenth</b>	When a whole is split into ten equal parts. Can be represented as a fraction ( $\frac{1}{10}$ ) or as a decimal (0.1)



**Real Horse**  
1500 mm high  
2000 mm long



**Drawn Horse**  
150 mm high  
200 mm long

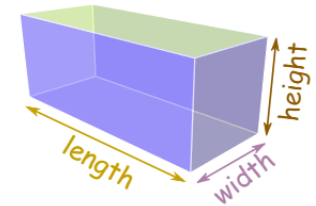
In this example the horse is drawn to scale.

The ratio is for every 10mm in real life it has been drawn as 1mm on the page.

#### Formula

The formula for the volume of a box is  $V = l \times w \times h$

Which has these variables:



- V stands for volume; l for length; w for width; h for height.

When  $l=10$ ,  $w=5$  and  $h=4$ , then  $V = 10 \times 5 \times 4 = 200$

#### Function Machine

A function machine is a way of showing how maths operations have been applied to a number in the order that they have happened. They are a bit like a flow diagram that is specifically used for mathematical purposes.

