**Multiplication and division vocabulary**

|  |  |  |
| --- | --- | --- |
| **Term**  | **Definition**  | **Example**  |
| factor  | a number that divides exactly into another number  | factors of 12 = 1, 2, 3, 4, 6, 12  |
| common factor  | factors of two numbers that are the same  | common factors of 8 and 12 = 1, 2, 4  |
| prime number  | a number with only 2 factors: 1 and itself  | 2, 3, 5, 7, 11, 13, 17, 19…  |
| composite number  | a number with more than two factors  | 12 (it has 6 factors)  |
| prime factor  | a factor that is prime  | prime factors of 12 = 2, 3  |
| multiple  | a number in another number’s times table  | multiples of 9 = 9, 18, 27, 36…  |
| common multiple  | multiples of two numbers that are the same  | common multiples of 4 and 6 = 12, 24…  |
| square numbers  | the result when a number has been multiplied by itself  | 25 (52 = 5x5) 49 (72 = 7x7) |
| cube numbers  | the result when a number has been multiplied by itself 3 times  | 8 (23 = 2x2x2) 27 (33 = 3x3x3)  |

**Roman numerals**

|  |  |  |  |
| --- | --- | --- | --- |
| 1  | I  | 100  | C  |
| 5  | V  | 500  | D  |
| 10  | X  | 1000  | M  |
| 50  | L  |   |   |

**Measurement conversions**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| **Month**  | **Days**  |
| January  | 31  |
| February  | 28 (29 in leap year)  |
| March | 31 |
| April | 30 |
| May | 31 |
| June  | 30  |
| July  | 31  |
| August  | 31  |
| September  | 30  |
| October  | 31  |
| November | 30 |
| December  | 31 |

 |

|  |  |
| --- | --- |
| 1 **cent**imetre  | 10mm  |
| 1 metre  | 100cm  |
| 1 **kilo**metre  | 1,000 m  |
|   |   |
| 1 mile  | 1.6 km  |
| 1 kilometre  | 0.625 (5/8) mile  |
|   |   |
| 1 **kilo**gram  | 1,000 grams  |
|   |   |
| 1 litre  | 1,000 **milli**litres  |

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**Year 6 Knowledge organiser**

|  |  |  |  |
| --- | --- | --- | --- |
| **3D shapes**  | square-based pyramid  | triangularbased pyramid (tetrahedron) | triangular prism  |
| **faces** (the flat sides)  | **5**  | **4**  | **5**  |
| **edges**  | **8**  | **6**  | **9**  |
| **vertices** (the points where the edges meet)  | **5**  | **4**  | **6**  |

**Volume** = the amount of space a 3D shape takes up, usually measured in cm3 or m3



**The mean**

The mean is a type of average. To find the mean, add up all the numbers and divide by how many there are. E.g. the mean of 4, 5,3, 4 is 4. (Because 4 + 5 + 3 + 4 = 16, and 16 ÷ 4 = 4)

**Co-ordinates**

Read co-ordinates along the x axis

 (horizontal) first, then the y axis

(vertical). E.g. (3,-4) = go right 3, down 4.

**Shape vocabulary perimeter** = measure around the edge (**circumference** = perimeter of a circle)

Horizontal line parallel lines

 Vertical line Perpendicular lines

**Angles**

|  |  |  |
| --- | --- | --- |
| full turn  | 360° |   |
| half turn  | 180°  |
| right angle  | 90°  |
| acute angle  | < 90°  |
| obtuse angle  | > 90°  |
| reflex angle  | >180°  |
| angles on a straight line  | 180°  |
| angles inside a triangle  | 180°  |
| angles inside a quadrilateral  | 360°  |

**Fractions, decimals & percentages**

|  |  |  |  |
| --- | --- | --- | --- |
| 1/100  | 0.01  | 1%  | ÷ 100  |
| 1/20  | 0.05  | 5%  | ÷ 20  |
| 1/10  | 0.1  | 10%  | ÷ 10  |
| 1/5  | 0.2  | 20%  | ÷ 5  |
| ¼  | 0.25  | 25%  | ÷ 4  |
| ½  | 0.5  | 50%  | ÷ 2  |
| ¾  | 0.75  | 75%  | ÷ 4, x3  |
| 1/8 | 0.125 | 12.5% | ÷ 8 |
| 1  | 1  | 100%  | ÷ 1  |

**Volume of a cuboid** = length x width x height

**2D shapes**

|  |  |
| --- | --- |
| **Name**  | **No. of sides** |
| quadrilateral  | 4  |
| pentagon  | 5  |
| hexagon  | 6  |
| heptagon  | 7  |
| octagon  | 8  |
| nonagon  | 9  |
| decagon  | 10  |

polygon = shape with straight sides regular = all sides/angles the same irregular = sides/angles **not** same

**Types of triangle**



 scalene equilateral isosceles

**Types of quadrilateral**



parallelogram trapezium rhombus

**AREA**

is the amount of space inside a 2D shape usually measured in cm2 or m2.

|  |
| --- |
| **Area of a triangle** = (base x height) ÷ 2 **Area of a parallelogram** = base x height  |

*(Height = perpendicular height)*