**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 **kilo**gram  | 1,000 grams  |
| 1 litre  | 1,000 **milli**litres  |
|  |  |
| 1 minute | 60 seconds |
| 1 hour | 60 minutes |
| 1 day | 24 hours |
| 1 week | 7 days |
| 1 year  | 365 days (366 in a leap year)52 weeks |
|  |  |
| £1 | 100p |
| £5 | 500p |

 |

**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  |
| Factor pairs  | a **pair** of numbers that, when multiplied will result in a given product | Factor pairs of 30 =5and 6 2 and 1510 and 31 and 30  |

**Roman numerals**

|  |  |  |  |
| --- | --- | --- | --- |
| 1  | I  | 50  | L  |
| 5  | V  | 100  | C  |
| 10  | X  |  |  |

**Year 4 Knowledge organiser**

**AREA**

is the amount of space inside a 2D shape usually measured in squares

Area = 27 squares

**Position and Direction**

**Translation-** *Moving a figure to a new location with no other changes.*

***Symmetry***-  an object is symmetrical when one half
is a mirror image of the other half.

**Lines of symmetry -** The "Line of Symmetry" (shown here in white) is the imaginary line where you could fold the image and have both halves match exactly.



**PERIMETER**

Is the distance around a two-dimensional shape.

 Perimeter = 66cm 

**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

**Angles**

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

**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.

**Fractions, decimals & percentages**

|  |  |  |
| --- | --- | --- |
| 1/100  | 0.01  | ÷ 100  |
| 1/10  | 0.1  | ÷ 10  |
| ¼  | 0.25  | ÷ 4  |
| ½  | 0.5  | ÷ 2  |
| ¾  | 0.75  | ÷ 4, x3  |
| 1  | 1  | ÷ 1  |

**Times tables**

**To know multiplication and division facts for multiplication tables up to 12 × 12**

**Time**

To read time on analogue clock.

To know that the shorter (hour) hand points to the hours.

The longer (minute) hand points to the minutes.



The hour hand has passed 8 and the minute hand is at 15. The time is 8:15 pm.

To know that the 24 hour clock has 4 digits and represents the 24 hours in a day. The first two digits represent the hours that have passed and the last two digits represent the minutes.

**15:23** means that 15 hours and 23 minutes of the day has passed – 15 hours is 3 hours after midday (12pm). Therefore the time is: **3:23 pm.**