

Year 1 - What I Should Know by Heart

NUMBER

- Count in 1's forward and backwards from 0 to 150, beginning from any number.
- Count in multiples of 2, 5 and 10 up to 100.
- Recognise odd and even numbers.
- Know 1st, 2nd, 3rd, 4th and 5th.
- Know (not work out) number bonds to 20, including subtraction (e.g. $9 + 7 = 16$; $16 - 7 = 9$; $16 - 9 = 7$)
- Recognise and can explain the multiplication (x) and division (\div) symbols.
- Know $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$ and relate them to a shape or quantity.

MEASURES

- Know the time to hour and half past the hour.
- Know that there are 100p in one pound.
- Know the days of the week, months of the year and seasons.

SHAPE and SPACE

- Recognise and know the properties of the following 2D shapes - square, rectangle, circle and triangle.
- Recognise and know the properties of the following 3D shapes - cube, pyramid and sphere.
- Model a taking a half, quarter and three- quarter turns.

Year 2 - What I Should Know by Heart

NUMBER

- Count in steps of 2, 3, 5 and 10.
- Count in tens from any number, and give 10 more or less than a given number to 100 – e.g. 10 more than 24 is 34.
- Recognise and use $<$, $>$ and $=$ signs.
- Be able to rapidly recall of number bonds to 20 and relate to other facts (e.g. using $3 + 7 = 10$, $10 - 7 = 3$ and $10 - 3 = 7$ to calculate $30 + 70 = 100$, $100 - 70 = 30$ and $100 - 30 = 70$).
- Know in any order multiplication and division facts for the 2, 5 and 10 multiplication tables up to $\times 12$.
- Recognise, name and write fractions $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$ and $\frac{3}{4}$ of a whole.
- Count in halves and quarters to ten.

SHAPE AND SPACE

- Recognise and name common 2-D shapes and describe in terms of the number of sides, right angles and lines symmetry – including pentagon, hexagon, and octagon.
- Identify and describe the properties of 3-D shapes including the number of edges, vertices and faces – including cuboid, triangular prism, cone and cylinder.
- Use mathematical vocabulary to describe rotation as a turn, right angles for quarter and half turns.
- Know what the terms clock-wise and anti-clockwise mean.

MEASURES

- Know that length/height is measured in (m/cm/mm); mass (kg/g); temperature ($^{\circ}\text{C}$); volume and capacity (liters/ml).
- Tell the time on an analogue clock to the nearest 5 minutes including quarter past/to the hour.
- Recognise coins and notes of different values.

Year 3 - What I Should Know by Heart

NUMBER

- Read numbers to at least 1,000 in numerals and in words.
- Count in multiples of 2, 3, 4, 5, 8, 10, 50 and 100 from 0; give 10 or 100 more or less than a given number.
- Recall in any order and use multiplication and division facts for the 2, 3, 4, 5, 8 and 10 multiplication tables up to $\times 12$.
- Identify, name and write fractions up to $\frac{1}{12}$.
- Count up and down in tenths from any starting number.

SHAPE and SPACE

- Be able to identify right angles.
- Know that two right-angles make a half-turn and four a complete turn; identify whether angles are greater or less than a right angle.
- Know the meaning of horizontal, vertical, perpendicular, parallel and curved lines.
- Extend vocabulary to include polygon, non-polygon and polyhedron, acute and obtuse angles, turns and lines.

MEASURES

- Recognise and use names and abbreviations for metric units of measure.
- Tell the time from an analogue clock to the nearest minute, and 12 and 24 hour digital clock.
- Know Roman numerals from I to XII.
- Know that there are 60 seconds in a minute, 7 days in a week, the number of days in each month, year and leap year.

Year 4 - What I Should Know by Heart

NUMBER

- Read and write numbers to at least 10,000.
- Order and compare numbers up to 10,000.
- Count in multiples of 2, 3, 4, 5, 6, 7, 8, 9, 10, 25, 50, 100 and 1000 from any given number, and 10 or 100 more or less than a given number.
- Count forwards and backwards with positive and negative whole numbers through zero.
- Read Roman numerals to 100.
- Recall multiplication and division facts for multiplication tables up to 12 x 12
- Recognise and use factor pairs up to 144.
- Counting forwards and backwards in decimals and fractions from any starting number.
- Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and any number of tenths and hundredths.

MEASURES

- Know distance conversions - 10mm = 1cm, 100cm = 1m, 1,000m = 1Km.
- Know mass conversions – 1,000g = 1kg.
- Know capacity conversions – 1,000 l = 1l.
- Know that there are 60s in a minute, 60 minutes in an hour and 24 hours in a day and 7 days in a week, 52 weeks in a year and 12 months in a year.

Year 5 and 6 - What I Should Know by Heart

NUMBER

Count forwards or backwards in steps of 100, 1000 or 10,000 for any given number up to 1,000,000 (up to 10 million in y6)

- Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
- Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.
- Recall the prime numbers up to 19.
- Recall the square numbers up to 100 and the square roots of these numbers.
- Recognise the per cent symbol (%) and understand that per cent relates to “number of parts per hundred”.
- Know the equivalents between simple fractions, percentages and decimals as (e.g. $\frac{1}{2} = 50\% = 0.5$, $\frac{1}{4} = 25\% = 0.25$, $\frac{3}{4} = 75\% = 0.75$).

MEASURES

- Know angles are measured in degrees and identify:
 - right-angles and $\frac{1}{4}$ turn (total 90o)
 - angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180 o)
 - angles at a point and one whole turn (total 360o).
- Know the meaning of and be able to recognise acute, obtuse and reflex angles.
- Know the properties of different triangles including: isosceles, equilateral and right-angled.
- Identify and name the following: parallelogram; rhombus; trapezium.
- Understand and use basic equivalencies between metric and common imperial units – e.g. 5miles is approximately 8 km, 1 pint is approximately half a litre, 1 ounce is approximately 25g, 1 inch is approximately 2.5cm.

SHAPE and SPACE

- Know that the area of a rectangle is length x breadth.
- Know the perimeter of a rectangle is $2x$ (length + breath).
- Know the volume of a cuboid is length x breadth x height.
- Know the parts of circles, including radius, diameter and circumference

DATA HANDLING

Know the meaning of different averages – mean, mode and median.