



## Maths Check List

### NUMBER AND THE NUMBER SYSTEM

Counting, properties of numbers and number sequences

- Describe and extend number sequences.
- Count on or back in tens or hundreds, starting from any two or three-digit number.
- Count on or back in steps of any single digit number starting from any two- digit number.
- Recognise two-digit and three-digit multiples of 2, 5 or 10, and three-digit multiples of 50 and 100. Place value and ordering
- Read and write whole numbers to any four-digit whole number in figures and words.
- Know what each digit represents, and partition three-digit numbers into a multiple of 100, a multiple of ten and ones (HTU).
- Use the vocabulary of comparing and ordering numbers, including ordinal numbers to 1000.
- Compare two given three-digit numbers, say which is more or less and give a number which lies between them.
- Say the number that is 1, 10 or 100 more or less than any given two or three-digit number.
- Order any four-digit whole number, and position it on a number line. Estimating and rounding.
- Use the vocabulary of estimation and approximation.
- Round any three-digit number to the nearest 10 or 100. (Fractions)
- Recognise the unit fractions  $\frac{2}{1}$ ,  $\frac{3}{1}$ ,  $\frac{4}{1}$ ,  $\frac{5}{1}$ ,  $\frac{6}{1}$  and  $\frac{10}{1}$ .
- Recognise simple fractions that are-several parts of a whole, for example  $\frac{4}{3}$ ,  $\frac{3}{2}$  and  $\frac{10}{3}$ .
- Recognise simple equivalent fractions: for example, five tenths and one half, five fifths and one whole.
- Compare familiar fractions: for example, know that on the number line one half lies between one quarter and three quarters.
- Find a unit fraction (  $\frac{2}{1}$ ,  $\frac{3}{1}$ ,  $\frac{4}{1}$ ,  $\frac{5}{1}$ ,  $\frac{6}{1}$  and  $\frac{10}{1}$  ) of a given quantity.

### CALCULATIONS

#### Understanding addition and subtraction

- Understand the operations of addition and subtraction, use the related vocabulary, and recognise that addition can be done in any order.
- Use the +, - and = signs, and recognise the use of a symbol such as  $\square$  or  $\Delta$  to stand for an unknown number.
- Add three or four single-digit numbers mentally, or three or four two-digit numbers with any appropriate method.
- Understand that subtraction is the inverse of addition. Rapid recall of addition and subtraction facts.
- Know by heart: - all addition facts to a total of 30 and the corresponding subtraction facts. - all pairs of multiples of 100 with a total of 1000 (e.g.  $300 + 700$ ).
- Derive quickly: - all pairs of multiples of 5 with a total of 100 (e.g.  $35 + 65$ ). Mental calculation strategies (+ and -).
- Use a variety of methods to demonstrate an understanding of addition and subtraction. Pencil and paper procedures (+ and -).
- Use pencil and paper methods to support, record or explain  $HTU \pm TU$ ,  $HTU \pm HTU$ .
- Use column addition and subtraction for  $HTU \pm TU$  where the calculation cannot easily be done mentally.



## Maths Check List

### Understanding multiplication and division Cont.

- Understand that multiplication can be done in any order.
- Understand division as grouping (repeated subtraction) or sharing.
- Use the related vocabulary.
- Recognise that division is the inverse of multiplication, and that halving is the inverse of doubling.
- Find remainders after simple division.
- Round up or down after division, depending on the context. Rapid recall of multiplication and division facts.
- Know by heart: - multiplication facts for times tables up to  $10 \times 10$ .
- Derive quickly: - division facts corresponding to the times tables up to  $10 \times 10$ . - doubles of all whole numbers to 20 (e.g.  $17 + 17$  or  $17 \times 2$ ). - doubles of multiples of 5 to 100 (e.g.  $75 \times 2$ ,  $90 \times 2$ ). - doubles of multiples of 50 to 500 (e.g.  $450 \times 2$ ). - and all the corresponding halves (e.g.  $36 \div 2$ , half of 130,  $900 \div 2$ ). Mental calculation strategies ( $\times$  and  $\div$ ).
- Use a variety of methods to demonstrate an understanding of multiplication and division.
- Including multiplying by 10 or 100, shift the digits one or two places to the left. Pen and paper procedure
- Use any method to calculate  $TU \times U$ ,  $TU \div U$  Checking results of calculations
- Use appropriate checking strategies.

### MONEY, MEASURES, SHAPE AND SPACE

#### Money and measures

- Recognise all coins and notes.
- Understand and use  $\pounds.p$  notation (for example, know that  $\pounds 3.06$  is  $\pounds 3$  and 6p).
- Use the vocabulary related to length and mass.
- Measure and compare using standard units (mm, m, cm, kg, g), including using a ruler to draw and measure lines to the nearest half centimetre.
- Know the relationship between metres, centimetres and millimetres; kilograms and grams.
- Read scales to the nearest division (labelled or unlabelled).
- Use the vocabulary related to time.
- Use units of time and the relationships between them (second, minute, hour, day, week).
- Read the time to 5 minutes on an analogue clock and a 12-hour digital clock, and use the notation 9:40.

#### Shape and space

- Use the mathematical names for common 2-D shapes, including square, rectangle, triangle, pentagon and hexagon.
- Use the mathematical names for common 3-D shapes; including cube, cuboid, cylinder and sphere.
- Refer to properties such as reflective symmetry, the number of sides, whether sides are the same length or parallel, whether or not angles are right angles.
- Identify and sketch lines of symmetry in simple shapes, and recognise shapes with no line of symmetry.
- Sketch the reflection of a simple shape in a mirror line along one edge.
- Use mathematical vocabulary to describe position, direction and movement: for example, describe and find the position of a square on a grid of squares with the rows and columns labelled.
- Make and describe right-angle turns.
- Identify right angles in 2-D shapes.



### Maths Check List

#### Shape and space Cont. SOLVING PROBLEMS

##### Problems involving money and measures

- Solve word problems involving numbers in money and measures, involving up to three steps.

##### Organising and using data

- Solve a given problem by sorting, classifying and organising information in simple ways, such as: - in a list or simple table; - in a pictogram; - in a block graph.
- Discuss and explain results.

##### Making decisions

- Choose and use appropriate operations of up to 3 steps (including multiplication and division) to solve word problems, and appropriate ways of calculating: mental, mental with jottings, pencil and paper.

##### Reasoning about numbers or shapes

- Solve mathematical problems and puzzles, recognise patterns and relationships, generalise and predict.
- Investigate a general statement about familiar numbers or shapes by finding examples that satisfy it and / or counter examples.

Learner's Notes: .....

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Learner: ..... Date: ..... / ..... / 202 ..... Parent's Signature: .....

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