



# Smithy Bridge Primary School

## Non-negotiables in Maths R – Y6

### Foundation Stage Non-Negotiables

- Pupils can recite numbers to 20.
- Pupils can accurately count objects up to 20, saying one number name for each object.
- Pupils can order number cards from 0-20.
- Pupils can say which number is 'one more' than a given number to 20.
- Pupils can say which number is 'one less' than a given number to 20.
- Pupils can add two single digit numbers, up to  $9+9$ , using everyday objects to support this.
- Pupils can take away using two single digit numbers, up to  $9-9$ , using everyday objects to support this.
- Pupils can accurately write the numerals 0-10.
- Pupils can use the following language in practical activities - add, plus, take away, subtract, equals and makes.
- Pupils can compare 2 sets of objects, such as toys, fruit and clothing, using the language 'more' and 'fewer'.

## Year 1 Non-Negotiables

- Pupils can count in twos, fives and tens from 0.
- Pupils can read and write numbers correctly in numerals up to 50 (e.g. can write the numbers 14 and 41 correctly).
- Pupils can use number bonds and related subtraction facts within 20 (e.g.  $18 = 9 + ?$ ;  $15 = 6 + ?$ ).
- Pupils can recall doubles and halves to 20 (e.g. pupil knows that double 2 is 4, double 5 is 10 and half of 18 is 9).
- Pupils can recognise and name triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres from a group of shapes or from pictures of the shapes.
- Pupils can recognise all coins and notes and can order them according to their value.
- Pupils can tell the time on analogue and digital clocks to o'clock and half past.
- Pupils can demonstrate an understanding of place value, though may still need to use apparatus to support them (e.g. by stating the difference in the tens and ones between 2 numbers i.e. 77 and 33 has a difference of 40 for the tens and a difference of 4 for the ones; by writing number statements such as  $35 < 53$  (is less than) and  $42 > 36$  (is greater than)).
- Pupils can add and subtract a two-digit number and ones and a two-digit number and tens where no regrouping is required (e.g.  $23 + 5$ ;  $46 + 20$ ), they can demonstrate their method using concrete apparatus or pictorial representations.

## Year 2 Non-Negotiables

- Pupils can partition two-digit numbers into different combinations of tens and ones. This may include using apparatus (e.g. 23 is the same as 2 tens and 3 ones which is the same as 1 ten and 13 ones).
- Pupils can add 2 two-digit numbers within 100 (e.g.  $48 + 35$ ) and can demonstrate their method using concrete apparatus or pictorial representations.
- Pupils can use estimation to check that their answers to a calculation are reasonable (e.g. knowing that  $48 + 35$  will be less than 100).
- Pupils can subtract mentally a two-digit number from another two-digit number when there is no regrouping required (e.g.  $74 - 33$ ) using pictorial representations.
- Pupils can recognise the inverse relationships between addition and subtraction and use this to check calculations and work out missing number problems (e.g.  $\Delta - 14 = 28$ ).
- Pupils can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables to solve simple problems (e.g. knowing they can make 7 groups of 5 from 35 blocks and writing  $35 \div 5 = 7$ ; sharing 40 cherries between 10 people and writing  $40 \div 10 = 4$ ; stating the total value of six 5p coins).
- Pupils can use different coins to make the same amount (e.g. pupil uses coins to make 50p in different ways).
- Pupils can read scales in divisions of ones, twos, fives and tens in a practical situation where all numbers on the scale are given (e.g. pupil reads the temperature on a thermometer or measures capacities using a measuring jug).
- Pupils can read the time on the clock to the nearest 15 minutes.
- Pupils can describe properties of 2-D and 3-D shapes (e.g. the pupil describes a triangle: it has 3 sides, 3 vertices and 1 line of symmetry; the pupil describes a pyramid: it has 8 edges, 5 faces, 4 of which are triangles and one is a square).

### Non-negotiables in maths - Year 3

- Use commas in 4 digit + numbers.
- Read / write (and identify place value of digits) any number up to 1,000.
- To add / subtract 10 & 100 to / from any number up to 1,000.
- Recall any multiplication / division facts for x3, x4, x6, x8 in five seconds and learn x7, x9, x11, x12.
- Know number bonds to 100.
- Use quick mental strategies for adding / subtracting near multiples of 10 (eg add 9 by adding 10 and taking one away).
- Count forwards and backwards in steps of 3, 4, 6, 8.
- Read digital, analogue and 24 hour time to 5 minutes.
- To calculate change from £1 as well as recognising all coins and notes.
- Round any number to the nearest 10 or 100.
- Double / halve any number up to 50.
- Multiply / divide whole numbers by 10.

## Non-negotiables in maths - Year 4

- Able to recall any multiplication / division facts up to  $12 \times 12$  in five seconds by the end of Term 1 (Autumn).
- Accurately use commas in 4 digit + numbers.
- Read / write (and identify place value of digits) any number up to 10,000.
- To add / subtract 100 & 1000 to / from any number up to 10,000.
- Recall any number bond to 100 in five seconds.
- Use quick mental strategies for adding / subtracting near multiples of 10 / 100 (eg add 99 by adding 100 and taking one away).
- Count forwards and backwards in steps of 7, 9, 25, 50.
- Read digital, analogue and 24 hour time to 1 minute.
- To calculate change from £10.
- Round any number to the nearest 10, 100 or 1000.
- Double / halve any number up to 100 and use doubling / halving strategies to calculate mentally (eg digit numbers  $\times 4$  by doubling and doubling again).
- Know and use standard written methods for division / multiplication.
- Multiply / divide whole numbers by 10 & 100.

## Non-negotiables in maths - Year 5:

- Always remember to accurately use commas in 4 digit + numbers and check to see whether a unit of measurement is required
- Use knowledge of times table facts to derive other facts quickly  
(eg  $5,600 \div 70 = 80$ )
- Read / write (and identify place value of digits) any number up to 1,000,000.
- Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 or 100,000.
- Solve time problems using timetables and converting between different units of time.
- Multiply and divide whole numbers and decimals by 10, 100 and 1,000
- Add / find the difference between positive / negative, negative / negative numbers.
- Identify factors, multiples, common prime numbers, square numbers (up to  $12 \times 12$ ) and know some cube numbers (including the related notation).
- Know conversions between metric units of measurement
- Know and use written methods for long division / multiplication
- Know equivalents of common fractions, decimals and percentages
- Use a wide range of strategies to quickly and accurately calculate mentally (within time restrictions)

## Non-negotiables in maths - Year 6:

- Always remember to accurately use commas in 4 digit + numbers and check to see whether a unit of measurement is required
- Use a wide range of strategies to quickly and accurately calculate mentally (within time restrictions)
- Know and use BODMAS accurately
- Read, write and identify the place value of digits in any number up to 10,000,000.
- Calculate any % of a number
- Know off by heart and use equivalence of fractions, decimals and percentages (including eighths)
- Accurate use of long division / multiplication
- Convert between miles / kilometres and vice versa
- Solve complex time problems
- Use knowledge of times table facts to derive other facts (eg  $5,600 \div 70 = 80$ ) accurately and at speed (within 5 seconds)