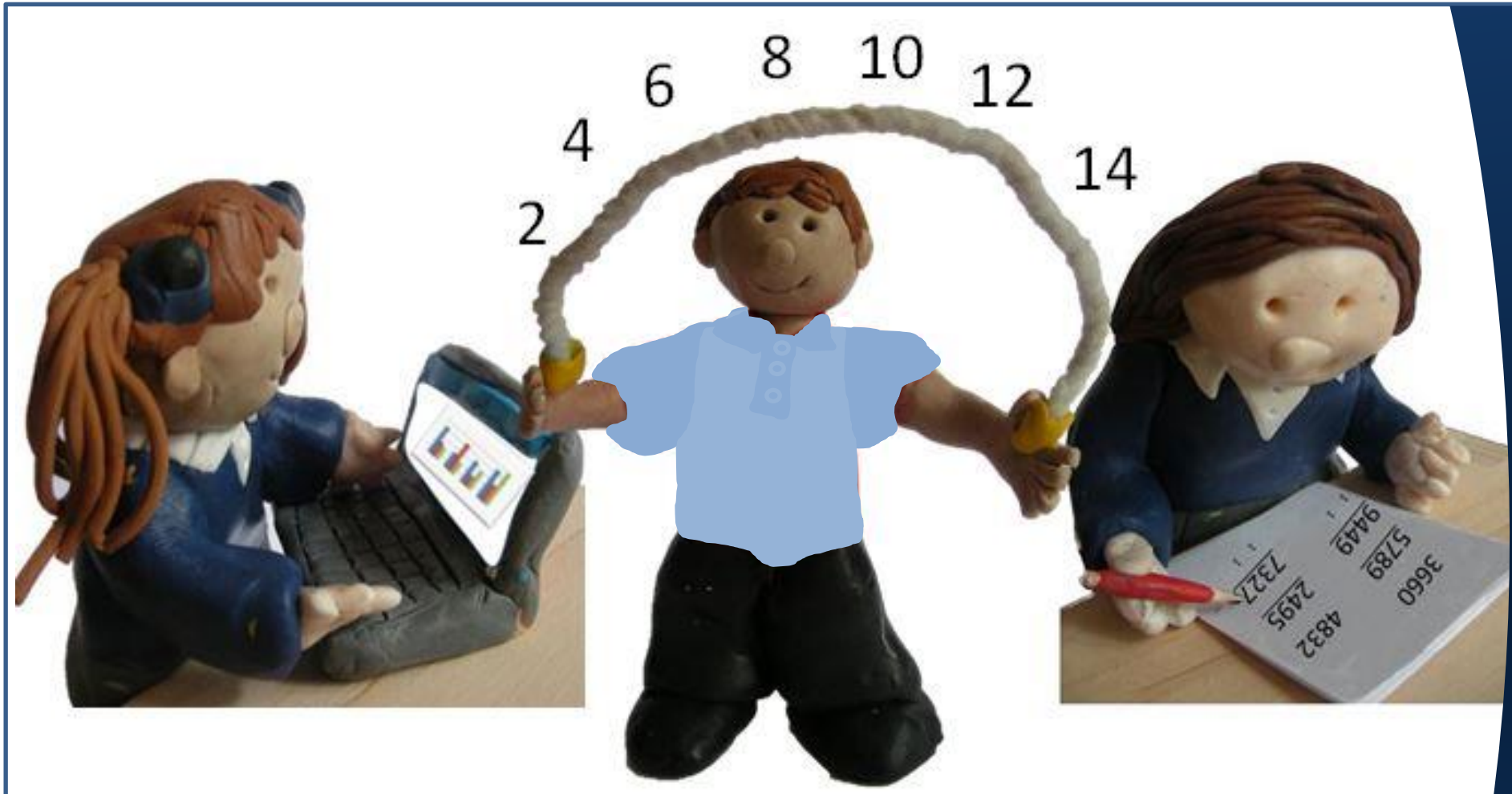

Horningsham Primary School

Maths Planning

Year 1

PROGRAMME OF STUDY

Number and Place Value	• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens • given a number, identify one more and one less • identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least • read and write numbers from 1 to 20 in numerals and words.	• Children should practise counting (1, 2, 3), ordering (first, second, third), or to indicate a quantity (3 apples, 2 centimetres), including solving simple concrete problems, until they are fluent. • They should begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by concrete objects and pictorial representations. • They should practise counting as reciting numbers and counting as enumerating objects, and counting in ones, twos, fives and tens from different multiples to develop their recognition of patterns in the number system (odd and even numbers). They connect these patterns with objects and with shapes, including through varied and frequent practice of increasingly complex questions. • They recognise and create repeating patterns with objects and with shapes.
Addition and Subtraction	• read, write and interpret mathematical statements involving addition (+), subtraction • (–) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • add and subtract one-digit and two-digit numbers to 20, including zero • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9.	• Children should memorise and reason with number bonds to 10 and 20 in several forms (9 + 7 = 16; 16 – 7 = 9; 7 = 16 – 9). They should realise the effect of adding or subtracting zero. This establishes addition and subtraction as related operations. • Children should combine and increase numbers, counting forwards and backwards. • They should discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms put together, add, altogether, total, take away, distance between, more than and less than, so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly.
Multiplication & Division	• solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	• Through grouping and sharing small quantities, children should begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities. • They should make connections between arrays, number patterns, and counting in twos, fives and tens.
Fractions	• recognise, find and name a half as one of two equal parts of an object, shape or quantity • recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.	• Children should be taught half and quarter as 'fractions of' discrete and continuous quantities by solving problems using shapes, objects and quantities. For example, they could recognise and find half a length, quantity, set of objects or shape. Children connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole.

Measurement	Compare, describe and solve practical problems for: • lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] • mass/weight [for example, heavy/light, heavier than, lighter than] • capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] • time [for example, quicker, slower, earlier, later] • measure and begin to record the following: • lengths and heights • mass/weight • capacity and volume • time (hours, minutes, seconds) • recognise and know the value of different denominations of coins and notes • sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] • recognise and use language relating to dates, including days of the week, weeks, months and years • tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	• The pairs of terms mass and weight, volume and capacity, are used interchangeably at this stage. • Children should move from using and comparing different types of quantities and measures using • non-standard units, including discrete (e.g. counting) and continuous (e.g. liquid) measures, to using manageable common standard units. • In order to become familiar with standard measures, children begin to use measuring tools such as a ruler, weighing scales and containers. • Children should use the language of time, including telling the time throughout the day, first using o'clock and then half past.
Geometry: Position & Direction	• describe position, direction and movement, including whole, half, quarter and three-quarter turns.	• Children should use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside. • Children should make half, quarter and three- quarter turns and routinely make these turns in a clockwise direction.
Geometry: Properties of Shapes	• recognise and name common 2-D and 3-D shapes, including: • 2-D shapes [for example, rectangles (including squares), circles and triangles] • 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].	• Children should handle common 2D and 3D shapes, naming these and related everyday objects fluently. • They should recognise these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids can be different shapes.

Autumn term

Place value (within 10)

- Step 1 Sort objects
- Step 2 Count objects
- Step 3 Count objects from a larger group
- Step 4 Represent objects
- Step 5 Recognise numbers as words
- Step 6 Count on from any number
- Step 7 1 more
- Step 8 Count backwards within 10
- Step 9 1 less
- Step 10 Compare groups by matching
- Step 11 Fewer, more, same
- Step 12 Less than, greater than, equal to
- Step 13 Compare numbers
- Step 14 Order objects and numbers
- Step 15 The number line

Addition and subtraction (within 10)

- Step 1 Introduce parts and wholes
- Step 2 Part-whole model
- Step 3 Write number sentences
- Step 4 Fact families – addition facts
- Step 5 Number bonds within 10
- Step 6 Systematic number bonds within 10
- Step 7 Number bonds to 10
- Step 8 Addition – add together
- Step 9 Addition – add more
- Step 10 Addition problems
- Step 11 Find a part
- Step 12 Subtraction – find a part
- Step 13 Fact families – the eight facts
- Step 14 Subtraction – take away/cross out (How
- Step 15 Take away (How many left?)
- Step 16 Subtraction on a number line
- Step 17 Add or subtract 1 or 2

Geometry Shape

- Step 1 Recognise and name 3-D shapes
- Step 2 Sort 3-D shapes
- Step 3 Recognise and name 2-D shapes
- Step 4 Sort 2-D shapes
- Step 5 Patterns with 2-D and 3-D shapes

Consolidation

SMALL STEPS

Spring term

Number: Place value (within 20)

- Step 1 Count within 20
- Step 2 Understand 10
- Step 3 Understand 11, 12 and 13
- Step 4 Understand 14, 15 and 16
- Step 5 Understand 17, 18 and 19
- Step 6 Understand 20
- Step 7 1 more and 1 less
- Step 8 The number line to 20
- Step 9 Use a number line to 20
- Step 10 Estimate on a number line to 20
- Step 11 Compare numbers to 20
- Step 12 Order numbers to 20

Number: Addition and subtraction (within 20)

- Step 1 Add by counting on within 20
- Step 2 Add ones using number bonds
- Step 3 Find and make number bonds to 20
- Step 4 Doubles
- Step 5 Near doubles
- Step 6 Subtract ones using number bonds
- Step 7 Subtraction – counting back
- Step 8 Subtraction – finding the difference
- Step 9 Related facts
- Step 10 Missing number problems

Number: Place value (within 50)

- Step 1 Count from 20 to 50
- Step 2 20, 30, 40 and 50
- Step 3 Count by making groups of tens
- Step 4 Groups of tens and ones
- Step 5 Partition into tens and ones
- Step 6 The number line to 50
- Step 7 Estimate on a number line to 50
- Step 8 1 more, 1 less

Measurement: Length and height

- Step 1 Compare lengths and heights
- Step 2 Measure length using objects
- Step 3 Measure length in centimetres

Measurement: Mass and volume

- Step 1 Heavier and lighter
- Step 2 Measure mass
- Step 3 Compare mass
- Step 4 Full and empty
- Step 5 Compare volume
- Step 6 Measure capacity
- Step 7 Compare capacity

SMALL STEPS

Summer term						
	Number **Multiplication and division** VIEW	Number **Fractions** VIEW	Geometry **Position and direction** VIEW	Number **Place value** (within 100) VIEW	Measurement **Money** VIEW	Measurement **Time** VIEW
SMALL STEPS						

Consolidation