Spring Term Objectives – Y1

Place value (within 20)

- read and write numbers from 1 to 20 in numerals and words
- count to and across 50, forwards and backwards, beginning with 0 or 1, or from any given number
- count, read and write numbers to 50 in numerals
- count in multiples of 2s
- given a number, identify 1 more and 1 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

Times table/mental maths focus:

- Review: number bonds to 10
- New: number bonds to 20
- Begin to count in multiples of 2
- Doubles and halves to 20

Addition and subtraction (within 20)

- 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 0
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as = ? − 9

Measurement - Length and height

- compare, describe and solve practical problems for:
  - lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
- measure and begin to record the following:
  - lengths and heights

Measurement - Mass and volume

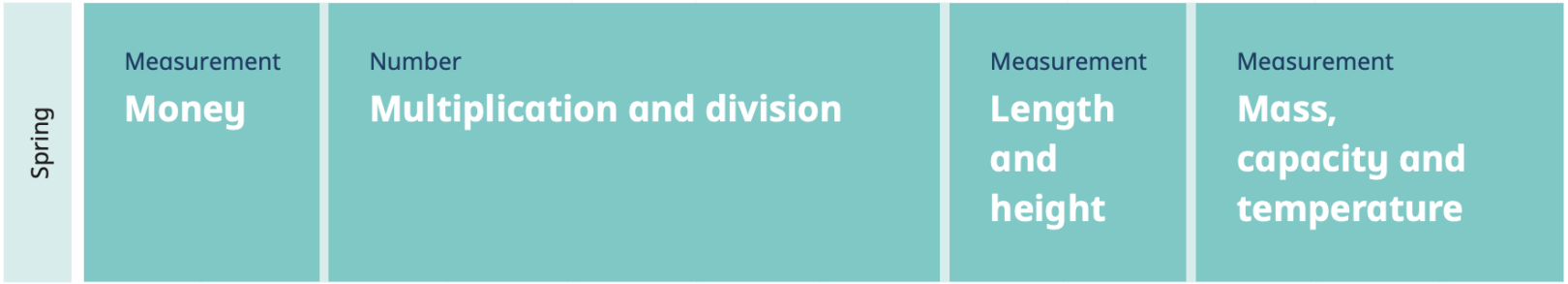
- compare, describe and solve practical problems for:
  - mass/weight [for example, heavy/light, heavier than, lighter than]
  - capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
- measure and begin to record the following:
  - mass/weight
  - capacity and volume

(The pairs of terms: mass and weight, volume and capacity, are used interchangeably at this stage.)

Spring	Number **Place value (within 20)**	Number **Addition and subtraction (within 20)**	Number **Place value (within 50)**	Measurement **Length and height**	Measurement **Mass and volume**

Hempstalls Primary School

Spring Term Objectives – Y2	
Times table/mental maths focus: • Review 2s and 10s • New: 5s • Derive and use related facts up to 100 E.g. 3+7 = 10 so 30 add 70 – 100 • Count on and back in 10s from any given number	Multiplication and division • recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • show that multiplication of 2 numbers can be done in any order (commutative) and division of 1 number by another cannot • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts
Measurement – money • recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value • find different combinations of coins that equal the same amounts of money • solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	
Measurement – length and height • choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) to the nearest appropriate unit, using rulers • compare and order lengths and record the results using >, < and =	Measurement – mass, capacity and temperature • choose and use appropriate standard units to estimate and measure mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using scales, thermometers and measuring vessels • compare and order mass, volume/capacity and record the results using >, < and =



Hempstalls Primary School

Spring Term Objectives – Y3	
Fractions	Times table/mental maths focus:
• recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators • recognise and show, using diagrams, equivalent fractions with small denominators • compare and order unit fractions, and fractions with the same denominators • count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10	• Review: 2,5,10,3 • New: 4 times table • Multiply and divide by 10 (whole numbers) Multiplication and division • write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects
Measurement – length and perimeter	Measurement – mass and capacity
• measure, compare, add and subtract: lengths (m/cm/mm); • measure the perimeter of simple 2-D shapes	• measure, compare, add and subtract mass (kg/g) and volume/capacity (l/ml)

Spring				
	Number **Multiplication and division B**	Measurement **Length and perimeter**	Number **Fractions A**	Measurement **Mass and capacity**

Hempstalls Primary School

Spring Term Objectives – Y4

Times table/mental maths focus:	Multiplication and division
• Review: 2s, 5s, 10s, 3s, 4s, 8s, 6s, 7s, 11s • New: 9s 12s • Addition and subtraction of multiples of 10, 100 and 1000 • Known multiplication facts (4 x 6 = 24, 40 x 6 = 240, 400 x 6 = 2400, 2400 / 6 = 400, 2400 / 60 = 4)	• recognise and use factor pairs and commutativity in mental calculations • multiply two-digit and three-digit numbers by a one-digit number using formal written layout • solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects • *Introduction of short division as per calculation policy*
Fractions	
• recognise and show, using diagrams, families of common equivalent fractions • solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number • add and subtract fractions with the same denominator	
Measurement – length and perimeter	Decimals
• convert between different units of measure [for example, kilometre to metre] • measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	• recognise and write decimal equivalents of any number of tenths or hundreds • find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths • count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10

Spring				
	Number **Multiplication and division B**	Measurement **Length and perimeter**	Number **Fractions**	Number **Decimals A**

Hempstalls Primary School

Spring Term Objectives – Y5

Mental maths/times table focus:	Fractions
• multiply and divide numbers mentally, drawing upon known facts • multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 • recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	• multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams • *continue to develop their understanding of fractions as numbers, measures and operators by finding fractions of numbers and quantities.*
Multiplication and division	**Decimals and percentages**
• multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	• read and write decimal numbers as fractions [for example, 0.71 = 71/100] • recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • round decimals with 2 decimal places to the nearest whole number and to 1 decimal place • read, write, order and compare numbers with up to 3 decimal places • solve problems involving number up to 3 decimal places • recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction • solve problems which require knowing percentage and decimal equivalents of 1/2 , 1/4 , 1/5 , 2/5 , 4/5 and those fractions with a denominator of a multiple of 10 or 25
Measurement – perimeter and area	**Statistics**
• measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm^2) and square metres (m^2), and	• solve comparison, sum and difference problems using information presented in a line graph • complete, read and interpret information in tables, including timetables

Spring	Number **Multiplication and division B**	Number **Fractions B**	Number **Decimals and percentages**	Measurement **Perimeter and area**	**Statistics**

Hempstalls Primary School

Spring Term Objectives – Y6	
Mental maths/times table focus:	Statistics
• Multiply and divide whole numbers and decimals by 10, 100 and 1000 • Count forwards and backwards with positive and negative whole numbers, including through zero	• interpret and construct pie charts and line graphs and use these to solve problems • calculate and interpret the mean as an average
Algebra	Ratio
• use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • find pairs of numbers that satisfy an equation with 2 unknowns • enumerate possibilities of combinations of 2 variables	• solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts • solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison • solve problems involving similar shapes where the scale factor is known or can be found • solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
Area, perimeter and volume	Fractions, decimals and percentages
• recognise that shapes with the same areas can have different perimeters and vice versa • recognise when it is possible to use formulae for area and volume of shapes • calculate the area of parallelograms and triangles • calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]	• associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8] • identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places • multiply one-digit numbers with up to 2 decimal places by whole numbers • use written division methods in cases where the answer has up to 2 decimal places • solve problems which require answers to be rounded to specified degrees of accuracy • recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

Spring						
	Ratio	**Algebra**	Number **Decimals**	Number **Fractions, decimals and percentages**	Measurement **Area, perimeter and volume**	**Statistics**