Medium-term planning Spring 1

YEAR 5

W	Topic	Curriculum objective
1	Negative numbers, and solving problems involving numbers	• To read, write, order and compare numbers at least to 1,000,000 and determine the value of each digit. • To count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000. • To interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero. • To round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000. • To solve number problems and practical problems that involve all of the above.
2	Addition and subtraction of large numbers and money	• To add and subtract whole numbers with more than 4 digits, including using efficient written methods (columnar addition and subtraction). • To add and subtract numbers mentally with increasingly large numbers. • To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. • To use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. • To solve problems involving numbers up to three decimal places.
3	Long multiplication, square numbers and cube numbers	• To multiply and divide numbers mentally drawing upon known facts. • To multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. • To solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. • To multiply numbers up to 4 digits by a one- or two-digit number using an efficient written method, including long multiplication for two-digit numbers. • To recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}). • To calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes.
4	Adding and subtracting fractions	• To recognise mixed numbers and improper fractions and convert from one form to the other; write mathematical statements > 1 as a mixed number: $^2/_5 + {}^4/_5 = {}^6/_5 = {}^{11}/_5$. • To add and subtract fractions with the same denominator and multiples of the same number.
5	Reflections and translations	• To identify, describe and represent the position of a shape following a reflection or translation using the appropriate language, and know that the shape has not changed.
6	Mass	• To convert between different units of measure (kilometre and metre; metre and centimetre; centimetre and millimetre; kilogram and gram; litre and millilitre). • To understand and use basic equivalences between metric units and common imperial units such as inches, pounds and pints. • To use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.
Assess and review		• To assess the half-term's work.