Medium-term planning Spring 1



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 (cm²) and square metres (m²) 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.