Year 4 Spring 2

Starter suggestions for Number
- Read and write numbers with one decimal place.
- Count on and back in 0.1s, 1s, 10s, 100s from any number to 10,000.
- Count forwards/backwards in equal steps and describe any patterns in the sequence.
- Order a set of random numbers to at least 10,000 including amounts of money and measures involving decimals.
- Recall addition and subtraction facts for 100.
- Recall and use addition and subtraction facts for multiples of 100 totalling 1000.
- Derive and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place).
- Use partitioning to double or halve any number, including decimals to one decimal place.
- Recall multiplication facts for all times tables other than 12x and derive associated division facts.
- Identify patterns of similar calculations, e.g. *if I know 7 x 8, I also know 0.7 x 0.8, 70 x 8, 70 x 80 etc.*
- Multiply and divide numbers by 10, including those which have answers to one decimal place.
- Count in fraction steps, e.g. $\frac{1}{5}, \frac{2}{5}, \frac{3}{5}$ ...

Starter suggestions for Measurement, Geometry and Statistics
- Recognise 2-D and 3-D shapes in different orientations and describe them.
- Use a variety of sorting diagrams to compare and classify numbers and geometric shapes based on their properties.
- Identify right angles and acute and obtuse angles.
- Estimate and compare lengths, volumes/capacities and masses.
- Read measuring scales to an appropriate degree of accuracy.
- Convert between different units of measure.
- Describe positions on a 2-D grid as coordinates in the first quadrant.
- Tell and write the time from an analogue clock and 12 and 24-hour clocks.
- Calculate time durations in minutes, hours and days.
- Interpret continuous data presented in time graphs.

	Main learning	Rationale
Week 1 **Multiplication and division**	▪ Recall multiplication and division facts for the 7 times table and 11 times table. ▪ Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together three numbers. ▪ Recognise and use factor pairs and commutativity in mental calculations. ▪ *Use partitioning to double or halve any number, including decimals to one decimal place.* ▪ *Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).* ▪ *Use estimation and inverse to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.* ▪ *Select a mental strategy appropriate for the numbers involved in the calculation.* ▪ *Continue to understand division as sharing and grouping and use each appropriately.* ▪ *Divide numbers up to 3 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.*	When learning multiplication tables, children should experience a blend of practical, visual activities, pattern spotting, generalising as well as rote learning. Children should apply their learning of the 7 and 11 times tables when calculating mentally. When calculating, children should learn which methods suit the numbers involved and why. Written methods should be agreed by the school and shared in the progression in written calculations policy. Efficient written methods are required to be taught by the end of Key Stage 2.
Week 2 **Place value**	▪ Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones). ▪ Order and compare numbers beyond 1000. ▪ Identify, represent and estimate numbers using different representations, including the number line. ▪ *Identify the value of each digit to two decimal places.* ▪ Find 0.1, 1, 10, 100 or 1000 more or less than a given number. ▪ Round any number to the nearest 10, 100 or 1000. ▪ Solve number and practical problems that involve all of the above and with increasingly large positive numbers.	Children develop their understanding of the size of numbers, and use a variety of models and images (such as Base 10 equipment, bundles of straws, arrow cards, number lines) to compare, order, round and estimate numbers. Many of these place value objectives can be applied through the context of data, realising that the one axis on a bar chart is a number line.
Week 3 **Written multiplication**	▪ Count in multiples of 7. ▪ Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. ▪ *Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).* ▪ *Use estimation and inverse to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.* ▪ Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, division (including remainders), integer scaling problems and harder correspondence problems such as which n objects are connected to m objects.	Children develop and rehearse the processes involved in written multiplication. Practical and visual resources may be used to support understanding of these processes. Calculations are presented in different contexts to support children in understanding when to use their calculation skills. Converting between weeks and days allows children to rehearse their 7 times table knowledge. When calculating, children should learn which methods suit the numbers involved and why. Written methods should be agreed by the school and shared in the progression in written calculations policy. Efficient written methods are required to be taught by the end of Key Stage 2.

	Main learning	Rationale
Week 4 Shape and position	▪ Use a variety of sorting diagrams to compare and classify numbers and geometric shapes, includincog quadrilaterals and triangles, based on their properties and sizes. ▪ *Continue to identify horizontal and vertical lines and pairs of perpendicular and parallel lines.* ▪ Identify acute and obtuse angles and compare and order angles up to two right angles by size. ▪ Identify lines of symmetry in 2-D shapes presented in different orientations. ▪ Describe positions on a 2-D grid as coordinates in the first quadrant. ▪ Plot specified points and draw sides to complete a given polygon.	Children apply their developing understanding of the properties of shapes to classify and name them. The terms regular and irregular should be used to describe shapes that have equal sides and angles and those that do not. They draw 2-D shapes on coordinate grids, combining their knowledge of properties of shapes and coordinate principles.
Week 5 Calculation in the context of statistics	▪ Add and subtract numbers with up to 4 digits and decimals with one decimal place using the formal written methods of columnar addition and subtraction where appropriate. ▪ Interpret discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. ▪ Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	Children develop and rehearse the processes involved in written addition and subtraction. Practical and visual resources may be used to support understanding of these processes. Calculations are presented in different contexts of data. Written methods should be agreed by the school and shared in the progression in written calculations policy. Efficient written methods are required to be taught by the end of Key Stage 2.
Week 6 Assess and review	Assess and review week	It is useful at regular intervals for teachers to consider the learning that has taken place over a term (or half term), assess and review children's understanding of the learning and use this to inform where the children need to go next.