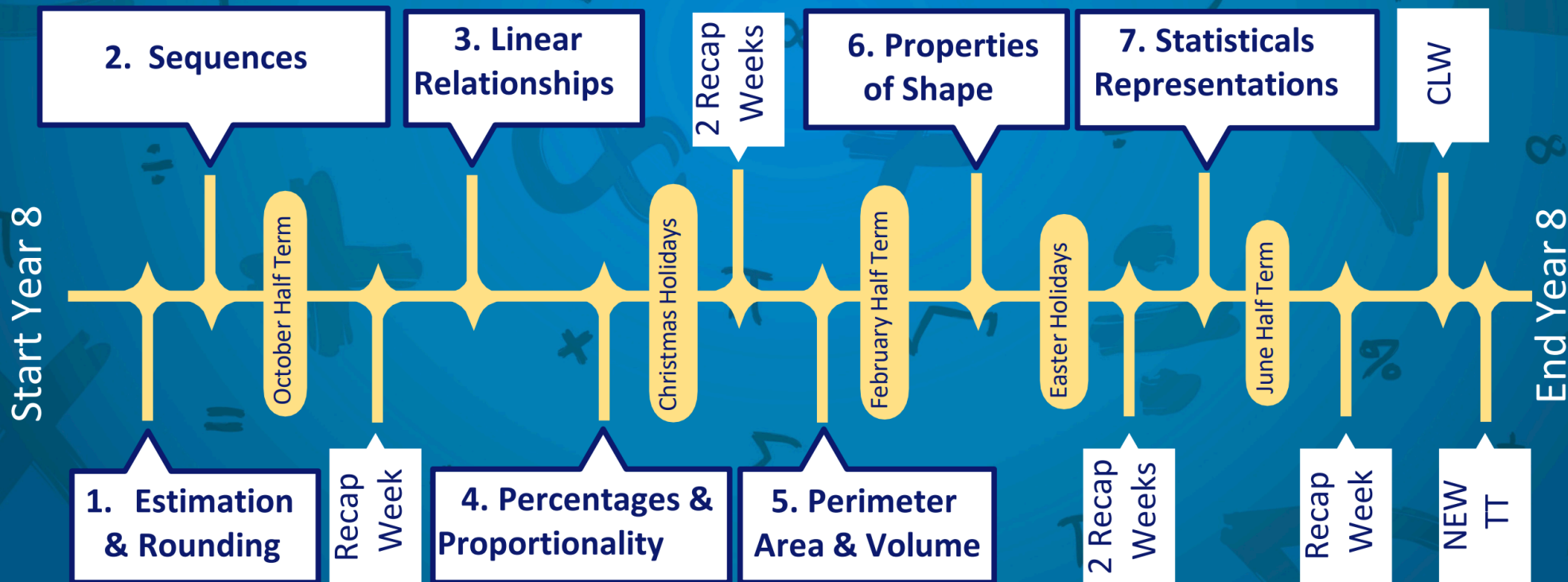


YEAR 8

SCHEME OF LEARNING



	Topics / National Curriculum Links	Why?
1 – Estimation and Rounding	1, 2 and 3 digit decimal point rounding, nearest 1, 10, 100 and 1000 rounding. 1, 2 and 3 significant figure rounding. Mathematical estimation, over and under estimation. Upper and Lower bounds.	An important part of everyday life, estimating can be useful day to day, it is also nice to know if your estimation is above or below your exact value. As a year 8 student, size of most things and measurements can be difficult to comprehend.
2 – Sequences	Linear sequences from nth term equation. Generating sequences. Potential exploring Quadratic, geometric and Fibonacci sequences.	Mathematics often has symmetry and patterns, sequences can predict values, say if a value does or does not appear, if it does appear, where does it appear.
3 – Linear Relationships	Plotting linear graphs, solving 1, 2 and 3 step equations. Solving equations with algebra on both sides of equals.	Whilst graph drawing may seem a bit old fashioned it is essential as a tool to recognise linear relationships. Solving problems is the most common use of algebra for us, our ability to form and then solve is essential in GCSE Mathematics
4 – Percentages and Proportionality	Percentage calculations using no calculator and calculators. Percentage of amounts, percentage change, reverse percentages, compound interest and depreciation. Direct and indirect proportion.	Focus here on no calculator techniques as well as more complex calculator techniques. Percentages are part of almost day to day events and our ability to understand relationships between moving values and changing values. Compound interest and depreciation for investments and or loss of values on items.
5 – Perimeter, Area and Volume	Recap of Y7 perimeter and area. Surface area of cuboids and 3D shapes. Volumes of prisms and more complex shapes.	2D and 3D shape calculations. More complex calculations may require use of formula to resolve problem solving. We need to be comfortable with all these calculations and relationships as we may need this knowledge to form and solve algebraic problems or some Mathematical proof.
6 – Property of Shapes	Angle reasoning, angles with parallel lines, angles with Polygons. Loci and constructions.	Angle or geometric reasoning is important part of Mathematics and relationships and angle fundamentals are built on to calculate more complex problems.
7 – Statistical Representations	Mean, Median, Mode and Range calculations. Bar charts, pie charts, scatter graphs.	Averages or measurements within data are again day to day staples and are regularly stated on the news, sports show and TV in general. Although a basic start for displaying data, we start displaying data and working around this.