

# YEAR 8 – SET 1 – ORDERS of WORK 2019/2020

**INSTRUCTIONS: ENSURE ALL NEW CONTENT IS COVERED BEFORE MOVING ON TO EXTENSION**

Week Beginning	Revision	New- Learn All	Extension
	Induction activities and setting tests establish good habits for equipment, presentation of work and homework		
Winter 1	<b>Number</b> Negative Numbers, Multiply /Divide by 0.1, 0.01, 0.001, Rounding to decimal places, Laws of indices ( $\times$ and $\div$ ), Finding square roots and cube roots by trial and improvement. Worded/ Functional number problems	Significant figures. Round numbers to 1 significant figure to estimate answers including worded problems Multiply and divide whole and decimal numbers by decimals, Upper bounds and lower bounds- error intervals, calculating bounds, including worded problems	Negative & Fractional Indices. Solve problems involving powers and roots. Standard Index Form. Calculations using standard form.
	<b>Algebra</b> Equations with unknowns on both sides. Forming and solving equations Worded/Functional problems involving algebra	Simultaneous Equations-elimination and substitution Forming simultaneous equations Adding and subtracting algebraic fractions (Linear)	
<b>Half Term</b>			
Winter 2	<b>Shape</b> Draw 3D shapes, Convert between metric units, Area and perimeter (trapezium and kite), Area of composite shapes, Area and circumference of circles, Surface area and volume of shapes made from cuboids, Worded/ functional problems involving area/volume	Volume of prisms and cylinders Calculate lengths, areas and volumes in plane shapes and right prisms. Worded/ functional problems involving area/volume Compound measures- SDT and DMV	
	<b>Algebra</b> Write sequences given nth term. Find the nth term Worded/functional problems with sequences	Find the nth term of a quadratic sequence	
	<b>Revision and tests</b>		
	<b>Data Handling</b> Draw / interpret scatter graphs, Line of best fit for scatter graphs (interpret). Draw and interpret pie charts.	Find mean, median and mode for continuous data Draw frequency polygon Draw and interpret stem and leaf	Draw and interpret cumulative frequency graph. Quartiles and calculation of interquartile range. Box plots
<b>Christmas Holidays</b>			

# YEAR 7 – SET 1 – (MASTERING) ORDERS of WORK 2018/2019

**INSTRUCTIONS: ENSURE ALL NEW CONTENT IS COVERED BEFORE MOVING ON TO EXTENSION**

Week Beginning	Revision	New- Learn All	Extension
Induction activities and setting tests establish good habits for equipment, presentation of work and homework			
Winter 1	<b>Number</b> Decimal Place Value and Ordering numbers, Rounding, BIDMAS, Long Division/Multiplication, Index Notation Worded/ Functional number problems	Negative Numbers, Multiply /Divide by 0.1, Non calculator methods, Rounding to decimal places, Laws of indices, Finding square roots and cube roots by trial and improvement. Worded/ Functional number problems	Significant figures. Round numbers to 1 significant figure to estimate answers, Multiply and divide whole and decimal numbers by decimals, <b>Upper bounds and lower bounds</b> – grade 7
	<b>Algebra</b> Simplifying expressions, Solving 2 step equations	Equations with unknowns on both sides, Solving equation by Trial and improvement Worded/Functional problems involving algebra	<b>Simultaneous Equations</b> -algebraic method.
<b>Half Term</b>			
Winter 2	<b>Shape</b> – Metric and imperial conversions, Area and Perimeter (squares and rectangles), Surface area and volume of cubes and cuboids	Draw 3D shapes, Convert between metric units, Area and perimeter (trapezium and kite), Area of composite shapes, Area and circumference of circles, Surface area and volume of shapes made from cuboids Worded/ functional problems involving area/volume	Compound measures, Volume of prisms Calculate lengths, areas and volumes in plane shapes and right prisms. Worded/ functional problems involving area/volume
	<b>Algebra</b> Generate expressions from worded problems. Term –to-term rule	Write sequences given nth term. Find the nth term Worded/functional problems with sequences	<b>Find the nth term of a quadratic</b> – grade 9
<b>Revision and tests for data capture</b>			
<b>Christmas Holidays</b>			
Spring 1	<b>Number</b> - Prime decomposition of a number, HCF and LCM, Improper fraction into a mixed ,Cancel fractions Add and subtract simple fractions, Finding fractions and percentages of quantities	Equivalent fraction. Simplifying Fractions. Ordering Fractions, Expressing one as a quantity of another, Add/Sub/Mul/Div Fractions Converting and comparing fractions/decimals/percentages	<b>Percentage increase and decrease</b> <b>Reverse percentages</b>
	<b>Algebra</b> - Substitute positive numbers into expressions, Remove brackets/collect terms, Use formula	Multiply out single brackets, Substitute positive and negative numbers in simple expressions involving powers	<b>Rearrange formulas, Multiply two brackets, Factorise a linear expression</b>
<b>Half term</b>			
Spring 2	<b>Shape</b> –Measure/Draw Identify/Estimate angles, Rules: Sum of angles / point/straight line, 3d shapes – construct nets, Reading and plotting coordinates	Calculating angles in triangles and quadrilaterals, Identify properties of equilateral and isosceles triangles, Classifying quadrilaterals, Regular and Irregular polygons, Plotting coordinates in four quadrants, Simple Loci Alternate and corresponding angles	Functional/worded problems for shape and space.
	<b>Probability</b> Using a probability scale Calculating probabilities	Listing outcomes /calculating probabilities of two events Probability of event not happening	Relative frequency
<b>Revision and tests for data capture</b>			
<b>Easter Holiday</b>			
Summer 1	<b>Number</b> Solving simple problems involving ratio and direct proportion	Equivalent / Simplifying ratios Divide by a given ratio Reading and making scale drawings	Compare ratio by changing form m:1 Simplify ratio as a fraction or decimal
	<b>Algebra</b> - Plot and interpret graphs such as $y=x$ , $y=2x$ , $y=x+1$ , Draw and interpret conversion graph	Generate coordinate pairs and plot graphs, $Y=mx+c$ , identify m and c Distance-time graphs	Plot graphs in form $ay+bx+c=0$ Solve simultaneous equations graphically
	<b>Transformations</b> - Rotation, Rotational symmetry Translation, Reflection. Congruent shapes. Tessellations	Enlargement using positive whole number Combinations of transformation	Identify planes of symmetry, Recognise similar shapes Enlargement of fractional scale factor
<b>Half term</b>			
Summer 2	<b>Analyse data</b> - Mean, mode, median and range. Consider validity of different data sheets.	Draw / interpret scatter graphs, Draw and interpret frequency diagrams Draw and interpret pie charts. Draw and interpret frequency diagrams.	Line of best fir for scatter graphs (interpret). Draw frequency polygon
	<b>Shape</b>	Construct perpendicular/ angle bisector, Three figure bearing Constructing triangles (SAS/SSS/ASA) Identify/ work out Interior and Exterior angles	Pythagoras' Theorem, Draw the locus of and object moving according to a rule, Use bearing to solve problems
<b>Topic revision and tests for data capture</b>			
Begin Key Topics for the next year.			

