Year 10 Foundation Scheme of learning 2021-2022 - Term 1

Stretch key learning in italics

Topic	Key learning	Hegarty clips	☹	😐	☺
Averages and range	Find the mode, median, mean and range from a list of data	**405-408, 409, 404, 410**			
	Find averages from tables	**417-418**			
	Find averages from charts				
Perimeter and area	Find the area and perimeter of rectangles, triangles, parallelograms and trapezia	**554, 557, 556, 559, 548 – 552**			
	Calculate the areas and perimeters of compound shapes	**551, 558**			
	Find the surface area of a prism	**585**			
	Convert between metric area measures	**700, 701**			
Fractions, decimals and percentages recap	Compare and order fractions, decimals and integers, using inequality signs	**14, 46, 60**			
	Add, subtract, multiply and divide mixed number fractions	**66, 69, 70,**			
	Find percentage of a quantity with and without a calculator	**85**			
	Find the reciprocal of an integer, decimal or fraction	**71**			
Straight line graphs	Plot and draw graphs of y = a, x = a, y = x and y = –x	**208,**			
	Plot and draw graphs of straight lines of the form y = mx + c using a table of values	**206**			
	Sketch a graph of a linear function, using the gradient and y-intercept	**211**			
	Identify and interpret gradient from an equation y = mx + c	**210**			
	Find the equation of a straight line from a graph	**210**			
October half term					
Real life graphs	Draw, label and scale axes	**199**			
	Draw and interpret distance–time graphs	**874-875**			
	Interpret gradient as the rate of change in distance–time and speed–time graphs, graphs of containers filling and emptying	**876**			
Transformations	Draw and describe reflections using a mirror line	**639-641**			
	Draw and describe translations using vectors	**637-638**			
	Draw and describe rotations using a centre of rotation	**648-649**			
	Draw and describe enlargements using positive scale factors	**642-643**			

	Understand that similar shapes are enlargements of each other	**609**			
	Draw and describe enlargements using negative and fractional scale factors	**604-607**			
Christmas					

Year 10 Foundation A Scheme of learning 2021-2022 - Term 2

Stretch key learning in italics

Topic	Key learning	Hegarty clips	☹	😐	☺
Ratio	Simplify ratios, write ratios as fractions and in the form 1:n	**329 -331**			
	Share amounts into a ratio	**332 – 334**			
	Solve problems involving ratios	**335 - 337**			
Proportion	Convert between currencies	**707-708**			
	Solve recipe and best buy problems	**739-742, 763 - 765**			
	Solve proportion problems using the unitary method	**341**			
	Solve problems involving direct and inverse proportion	**339 - 342**			
Probability 1	Write probabilities in words or fractions, decimals and percentages	**351 – 352**			
	Record outcomes of probability experiments in tables	**356**			
	Know that the probabilities of an experiment add to 1	**353**			
	List outcomes for single events	**352**			
	Work out probabilities from two way tables	**422 – 424**			
February half term					
Probability 2	Find the probability of an event happening using relative frequency	**356**			
	List all outcomes for combined events systematically	**352**			
	Work out probabilities from Venn diagrams	**383-385**			
	Use tree diagrams to calculate the probability of two independent events	**361 – 363**			
	Use tree diagrams to calculate the probability of two dependent events	**364 – 366**			
Pythagoras and trigonometry	Calculate the length of the hypotenuse in a right-angled triangle using Pythagoras and trigonometry	**498, 509 – 510**			
	Find the length of a shorter side in a right-angled triangle using Pythagoras and trigonometry	**499, 509 – 510**			
	Find angles of elevation and depression	**515**			
	Solve problems with Pythagoras and Trigonometry	**501 – 504**			

Angles in polygons	Find angles on straight lines, in a triangle, around a point and parallel lines	**481, 483, 477 – 479, 812 - 814**			
	Calculate and use the sums of the interior and exterior angles of polygons	**561 - 564**			
	Find angles on straight lines, in a triangle, around a point and parallel lines	**481, 483, 477 – 479, 812 - 814**			
	Calculate and use the sums of the interior and exterior angles of polygons	**561 - 564**			
Easter holidays					

Year 10 Foundation A Scheme of learning 2021-2022 - Term 3

Stretch key learning in italics

Topic	Key learning	Hegarty clips	☹	😐	☺
Sequences	Find the next term in a sequence, including negative values				
	Find the nth term of a linear sequence	**919**			
	Use the nth term of a sequence to generate terms	**920**			
	Solve problems using nth terms	**921 – 922**			
Perimeter, area and volume 2	Find the area and circumference of a circle	**534 – 536, 539 – 543**			
	Sketch nets of cuboids and prisms	**833 – 836**			
	Calculate perimeters and areas of composite shapes made from circles and parts of circles	**545, 547**			
	Calculate arc lengths, angles and areas of sectors of circles	**544 – 545, 546 – 547**			
	Find the surface area and volume of a cylinder	**585 – 586**			
	Find the surface area and volume of prisms	**585, 570, 571**			
Indices and standard form	Use index laws to simplify	**173**			
	Convert between standard form and ordinary numbers	**122, 123**			
	Add, subtract, multiply and divide numbers in standard form	**125 – 127**			
	Use a calculator with standard form	**128**			
May half term					
Statistics and sampling	Recognise types of data: primary secondary, quantitative and qualitative				
	Find averages from a list and tables including grouped frequency tables				
	Understand how sources of data may be biased				
	Explain why a sample may not be representative of a whole population				
Plans and elevations	Draw sketches of 3D solids				
	Know the terms face, edge and vertex	**831**			

	Identify and sketch planes of symmetry of 3D solids				
	Understand and draw front and side elevations and plans of shapes	**839 – 844**			
	Given the front and side elevations and the plan of a solid, draw a sketch of the 3D solid	**839 – 844**			
Summer holidays					