YEAR 9	Summer 2022				Foundation	
DATES	UNIT / LESSON	PRIOR KNOWLEDGE	GRADE FROM …	GRADE TO …	OBJECTIVES	Corbett
	6 Angles	Be able to use a ruler and protractor. Have an understanding of angles as a measure of turning. Name angles and distinguish between acute, obtuse, reflex and right angles. Recognise reflection symmetry, be able to identify and draw lines of symmetry, and complete diagrams with given number of lines of symmetry. Recognise rotation symmetry and be able to identify orders of rotational symmetry, and complete diagrams with given order of rotational symmetry. Know the properties of special triangles and quadrilaterals.	2	5		video description
20-Apr	6.1 Properties of shapes	Identify lines of symmetry and rotational symmetry in 2D shapes. Draw angles. Know that the angles in a quadrilateral sum to 360°.	2	3	Solve geometric problems using side and angle properties of quadrilaterals. Identify congruent shapes.	33 Angles in quadrilaterals 316 + 317 line and rotational symmettry 66 Congruent shapes 28 + 31 Drawing and measuring angles
25-Apr	6.2 Angles in parallel lines	Identify parallel and perpendicular lines. Identify acute and obtuse angles.	3	3	Understand and use the angle properties of parallel lines. Find missing angles using corresponding and alternate angles.	25 angles - parallel lines 39 vertically opposite angles
	6.3 Angles in triangles	Identify different types of triangles. Know that the angles in a triangle sum to 180°.	2	3	Solve angle problems in triangles. Understand angle proofs about triangles.	37 Angles - triangle 38 types of angles
2-May	6.4 Exterior and interior angles	Recall the number of sides of different polygons. Know the properties of special triangles and quadrilaterals.	2	4	Calculate the interior and exterior angles of regular polygons.	32 angles polygons
	6.5 More exterior and interior angles	Recall the number of interior angles in different polygons. Identify exterior and interior angles.	2	5	Calculate the interior and exterior angles of polygons. Explain why some polygons fit together and some others do not	
	6.6 Geometrical patterns	Using angle facts to find missing angles. Write an equation to solve a problem.	3	5	Solve angle problems using equations. Solve geometrical problems showing reasoning.	
	7 Averages and range	Calculate the midpoint of two numbers. Draw the statistical diagrams in unit 3. Use inequality notation. Calculate the mode, median and the range.	1	4		
9-May	7.1 Mean and range	Understand that sharing equally involves dividing a total. Identify the mode.	2	3	Calculate the mean from a list and from a frequency table. Compare sets of data using the mean and range.	53,54 57
	7.2 Mode, median and range	Identify the mode, median and range. Identify an incorrect value. Draw a stem and leaf diagram. Understand inequality notation.	2	3	Find the mode, median and range from a stem and leaf diagram. Identify outliers. Estimate the range from a grouped frequency table.	170
16-May	7.3 Types of average	Find the mode, median and mean.	1	3	Recognise the advantages and disadvantages of each type of average. Find the modal class. Find the median from a frequency table.	50/51
23-May	7.4 Estimating the mean	Calculate the value halfway between pairs of numbers. Calculate the mean. Read data from a frequency table.	4	4	Estimate the mean of grouped data.	55
HALF TERM						
6-Jun	7.5 Sampling	Understand the use of random numbers in a real-life situation.	3	3	Understand the need for sampling. Understand how to avoid bias.	282
	8 Perimeter, area and volume 1	Measure lines. Recall the names of 2D shapes. Identify and name common 3D solids: cubes, cuboids, prisms, cylinders, pyramids, cones and spheres. Use strategies for multiplying and dividing by powers of 10. Find areas by counting squares and volumes by counting cubes. Interpret scales on a range of measuring instruments. Convert metric units to metric units.	2	5		
13-Jun	8.1 Rectangles, parallelograms and triangles	Understand the meaning of 'perpendicular'. Work out the perimeter and area of triangles and rectangles.	3	3	Calculate the perimeter and area of rectangles, parallelograms and triangles. Estimate lengths, areas and costs. Calculate a missing length, given the area.	45,44,49
20-Jun	8.2 Trapezia and changing units	Multiplying and dividing by powers of 10, converting between millimetres, centimetres and metres.	3	3	Calculate the area and perimeter of trapezia. Find the height of a trapezium given its area. Convert between area measures.	
27-Jun	8.3 Area of compound shapes	Know that 1 km = 1000 m Multiply and divide by powers of 10. Convert between metric measures of area.	3	3	Calculate the perimeter and area of shapes made from triangles and rectangles. Calculate areas in hectares, and convert between ha and m2.	41
4-Jul	8.4 Surface area of 3D solids	Describe shapes using correct vocabulary, including face, edge and vertex. Sketch the net of a cuboid. Work out the area of rectangles, triangles and trapezia.	3	4	Calculate the surface area of a cuboid. Calculate the surface area of a prism.	310 311
11-Jul	8.5 Volume of prisms	Identify cross sections of prisms. Decide whether a 3D solid is a prism.	2	4	Calculate the volume of a cuboid. Calculate the volume of a prism.	
18-Jul	8.6 More volume and surface area	Multiply and divide by large powers of 10. Know that 1 litre = 1000 ml. Work out the volume and surface area of a prism.	3	5	Solve problems involving surface area and volume. Convert between measures of volume.	
END OF TERM 3 TEST						