YEAR 9	Spring 2022		Foundation				
DATES	UNIT / LESSON	PRIOR KNOWLEDGE	GRADE FROM ...	GRADE TO ...	OBJECTIVES	Corbett	
	3 Graphs, tables and charts	Read scales on graphs and plot coordinates in the first quadrant. Draw circles. Measure and draw angles. Know that there are 360 degrees in a full turn and 180 degrees at a point on a straight line. Have experience of tally charts. Have used inequality notation. Use correct notation for time using 12 & 24-hour clocks. Find the midpoint of two numbers.	**2**	**4**			
3-Jan	3.1 Frequency tables	Addition of numbers. Counting tally symbols and drawing tally charts. Interpret a frequency table, including calculating the total population.	**2**	**3**	Designing tables and data collection sheets. Reading data from tables.	51	Averages from a table https://corbettmaths.com/2013/03/16/median-for-a-frequency-table/
						54	https://corbettmaths.com/2012/08/19/means-from-frequency-tables/
	3.2 Two-way tables	Convert between 12 and 24 hour clock times. Calculate with time. Understand use of fractions.	**2**	**3**	Use data from tables. Design and use two-way tables.	319	https://corbettmaths.com/2012/08/10/two-way-tables/
10-Jan	3.3 Representing data	Determine what features are missing from a graph. Interpret bar charts.	**2**	**3**	Draw and interpret comparative and composite bar charts. Interpret and compare data shown in bar charts, line graphs and histograms.	147	https://corbettmaths.com/2013/04/15/drawing-bar-charts/
						148	https://corbettmaths.com/2012/08/10/reading-bar-charts/
	3.4 Time series	Write decimal numbers of millions. Plot a line graph.	**2**	**3**	Plot and interpret time series graphs. Use trends to predict what might happen in the future.	(382)	no video there yet
17-Jan	3.5 Stem and leaf diagrams	Place numbers in order of size.	**3**	**3**	Construct and interpret stem and leaf and back-to-back stem and leaf diagrams.	169	https://corbettmaths.com/2012/08/02/drawing-stem-and-leaf-diagrams/
						170	https://corbettmaths.com/2012/08/02/reading-stem-and-leaf-diagrams-video/
	3.6 Pie charts	Express a part of a circle as a fraction or percentage of the whole. Know the number of degrees in a circle. Draw a circle. Draw a given angle.	**2**	**4**	Draw and interpret pie charts.	163	https://corbettmaths.com/2013/02/27/drawing-a-pie-chart/
						164	https://corbettmaths.com/2013/05/25/interpreting-pie-charts/
24-Jan	3.7 Scatter graphs	Understand depreciation of value as things age, as well as an understanding of exceptions (e.g. classic cars) Plot coordinates in the first quadrant.	**3**	**4**	Plot and interpret scatter graphs. Determine whether or not there is a relationship between sets of data.	165	https://corbettmaths.com/2012/08/10/scatter-graphs/
						168	https://corbettmaths.com/2012/08/10/scatter-graphs-correlation/
	3.8 Line of best fit	Recall definitions of positive, negative and no correlation. Read values from a graph.	**3**	**4**	Draw a line of best fit on a scatter graph. Use the line of best fit to predict values.		
	4 Fractions and percentages	Use the four operations of number. Find common factors. Have a basic understanding of fractions as being 'parts of a whole' and be able to write one value as a fraction of another. Define percentage as 'number of parts per hundred'. Know number complements to 10 and multiplication tables. Convert between common fractions, decimals and percentages.	**2**	**4**			
31-Jan	4.1 Working with fractions	Identify equivalence in fractions. Identify the denominator of a fraction. Identify the numerator of a fraction. Find the LCM. Write fractions in their simplest form.	**2**	**3**	Compare fractions. Add and subtract fractions. Use fractions to solve problems.	144	https://corbettmaths.com/2013/02/17/ordering-fractions/
						132	https://corbettmaths.com/2013/02/15/adding-fractions-same-denominator/
						133	https://corbettmaths.com/2012/08/21/fractions-addition-and-subtraction/
	4.2 Operations with fractions	Convert between units of length. Add and subtract fractions. Convert between mixed numbers and improper fractions.	**2**	**4**	Find a fraction of a quantity or measurement. Use fractions to solve problems.	139	https://corbettmaths.com/2013/02/15/improper-fractions-to-mixed-numbers/
						140	https://corbettmaths.com/2013/02/15/mixed-numbers-to-improper-fractions/
						137	https://corbettmaths.com/2012/08/20/fractions-of-amounts/
	4.3 Multiplying fractions	Find a fraction of a quantity. Know that 1000 g = 1 kg. Know the commutative rule a x b = b x a. Write 1 million pounds as a figure.	**2**	**3**	Multiply whole numbers, fractions and mixed numbers. Simplify calculations by cancelling.	142	https://corbettmaths.com/2012/08/21/multiplying-fractions-2/
	4.4 Dividing fractions	Divide larger numbers by smaller numbers. Convert between mixed numbers and improper fractions. Multiply a whole number or a fraction by a fraction.	**3**	**4**	Divide a whole number by a fraction. Divide a fraction by a whole number or a fraction.	134	https://corbettmaths.com/2012/08/21/division-with-fractions/
7-Feb	4.5 Fractions and decimals	Identify the (place) value of a digit in a decimal number. Convert between common fractions and decimals. Write one value as a fraction of another.	**2**	**3**	Convert fractions to decimals and vice versa. Use decimals to find quantities. Write one number as a fraction of another.	123,124,127,128	several videos
						136	https://corbettmaths.com/2012/08/21/expressing-one-quantity-as-a-fraction-of-another/
	4.6 Fractions and percentages	Write common fractions and decimals as percentages.	**2**	**3**	Convert percentages to fractions and vice versa. Write one number as a percentage of another.	122	https://corbettmaths.com/2012/08/20/percentages-to-fractions/
						126	https://corbettmaths.com/2013/03/29/fractions-to-percentages/
						237	https://corbettmaths.com/2012/08/21/expressing-one-quantity-as-a-percentage-of-another/
	4.7 Calculating percentages 1	Find percentages of quantities. Convert a fraction to a decimal. Convert a percentage to a fraction.	**2**	**3**	Convert percentages to decimals and vice versa. Find a percentage of a quantity. Use percentages to solve problems. Calculate simple interest.	121	https://corbettmaths.com/2012/08/19/percentages-to-decimals/
						125	https://corbettmaths.com/2012/08/19/decimals-to-percentages/
						234	https://corbettmaths.com/2012/08/20/percentages-of-amounts-non-calculator/
						235	https://corbettmaths.com/2013/02/15/percentages-of-an-amount-calculator/
14-Feb	4.8 Calculating percentages 2	Calculate with percentages. Convert a percentage to a decimal. Find a percentage of a quantity.	**2**	**3**	Calculate percentage increases and decreases. Use percentages in real-life situations. Calculate VAT (value added tax).	238	https://corbettmaths.com/2012/08/21/increasing-or-decreasing-by-a-percentage/
						239	https://corbettmaths.com/2012/08/21/multipliers-for-increasing-and-decreasing-by-a-percentage/
HALF TERM							
	5 Equations, inequalities and sequences	Use inequality signs between numbers. Use negative numbers with the four operations, recall and use the hierarchy of operations and understand inverse operations. Deal with decimals and negatives on a calculator. Use index laws numerically. Draw a number line. Write the next terms in a sequence, and find the term to term rule. Use function machines. Multiply a term over brackets. Substitute into and evaluate an expression.	**2**	**4**			
28-Feb	5.1 Solving equations 1	Understand the meaning of the term 'inverse operation'. Find the output of a function machine when given the input.	**2**	**3**	Understand and use inverse equations. Rearrange simple linear equations. Solve simple linear equations.	110	https://corbettmaths.com/2012/08/24/solving-equations/
	5.2 Solving equations 2	Use all four operations to solve simple, single one-step equations. Work out the outputs of a function machine. Simplify expressions.	**2**	**3**	Solve two-step equations.		
7-Mar	5.3 Solving equations with brackets	Expand a single bracket, involving positive and negative numbers. Solve two-step equations.	**3**	**4**	Solve linear equations with brackets. Solve equations with unknowns on both sides.	113	https://corbettmaths.com/2012/08/24/solving-equations-with-letters-on-both-sides/
14-Mar	5.4 Introducing inequalities	Identify numbers that satisfy an inequality. Use the inequality signs between numbers.	**2**	**4**	Use correct notation to show inclusive and exclusive inequalities. Solve simple linear inequalities. Write down whole numbers which satisfy an inequality. Represent inequalities on a number line.	176	https://corbettmaths.com/2013/05/18/inequalities/
						177	https://corbettmaths.com/2013/05/18/inequalities-on-a-number-line/
						178	https://corbettmaths.com/2013/05/07/solving-inequalities-one-sign-corbettmaths/
						179	https://corbettmaths.com/2013/05/12/solving-inequalities-two-signs/
	5.5 More inequalities	List integer values that satisfy an inequality.	**3**	**4**	Solve two-sided inequalities.		
21-Mar	5.6 More formulae	Identify the inverse of all four operations. Substitute into and evaluate expressions.	**2**	**4**	Substitute values into formulae and solve equations. Change the subject of a formula. Know the difference between an expression, an equation, a formula and an identity.	20	https://corbettmaths.com/2012/08/20/substitution-into-expressions/
						7	https://corbettmaths.com/2013/12/23/changing-the-subject-video-7/
28-Mar	5.7 Generating sequences	Find the missing numbers in simple arithmetic sequences. Write down missing terms in sequences. Find the term-to-term rule.	**3**	**4**	Recognise and extend sequences.	286	https://corbettmaths.com/2013/11/13/describingrules/
						287	https://corbettmaths.com/2013/11/13/missingterms/
4-Apr	5.8 Using the nth term of a sequence	Substitute into a simple expression. Solve simple equations.			Use the nth term to generate terms of a sequence. Find the nth term of an arithmetic sequence.	288	https://corbettmaths.com/2012/08/20/the-nth-term-for-linear-sequences/
END OF TERM 2 TEST							