

YEAR 10 Autumn 2020		Higher				
DATES	UNIT / LESSON	PRIOR KNOWLEDGE	GRADE FROM ...	GRADE TO ...	OBJECTIVES	Corbett
Begin with 4/5 weeks to recap work from last year as required, with particular emphasis on the summer term topics						
05/10/2020	week to include TEST					
	<b>9 Equations and inequalities</b>	Understand the $\geq$ and $\leq$ symbols. Substitute into, solve and rearrange linear equations.  Factorise simple quadratic expressions. Recognise the equation of a circle.	<b>3</b>	<b>9</b>		
12/10/2020	9.1 Solving quadratic equations 1	Know that a square has two possible roots  Find the factors of a given number. Factorise expressions. Solve simple equations containing a squared term.	<b>4</b>	<b>6</b>	Find the roots of quadratic functions.  Rearrange and solve simple quadratic equations.	117/118 266
19/10/2020	9.2 Solving quadratic equations 2	Understand the term quadratic  Find positive and negative square roots. Solve quadratic equations by factorising. Expand two pairs of brackets. Simplify surds.	<b>5</b>	<b>7</b>	Solve more complex quadratic equations.  Use the quadratic formula to solve a quadratic equation.	119/266 267
HALF TERM						
02/11/2020	9.3 Completing the square	Expand and simplify a square bracket. Simplify surds. Solve simple equations, giving the answer in surd form.	<b>4</b>	<b>9</b>	Complete the square for a quadratic expression. Solve quadratic equations by completing the square.	267a
09/11/2020	9.4 Solving simple simultaneous equations	Substitute into simple algebraic expressions.  Rearrange equations.	<b>5</b>	<b>7</b>	Solve simple simultaneous equations.  Solve simultaneous equations for real-life situations.	295
	9.5 More simultaneous equations	Recall the equation of a straight line.  Solve simple simultaneous equations.	<b>6</b>	<b>6</b>	Use simultaneous equations to find the equation of a straight line.  Solve linear simultaneous equations where both equations are multiplied. Interpret real-life situations involving two unknowns and solve them.	296/297 295
16/11/2020	9.6 Solving linear and quadratic simultaneous equations	Identify different types of equations.  Solve quadratic equations.	<b>7</b>	<b>9</b>	Solve simultaneous equations with one quadratic equation.  Use real-life situations to construct quadratic and linear equations and solve them.	298
23/11/2020	9.7 Solving linear inequalities	Understand inequality signs  Construct correct inequalities from given information	<b>3</b>	<b>6</b>	Solve inequalities and show the solution on a number line and using set notation.	177
	<b>10 Probability</b>	Understand that a probability is a number between 0 and 1, and distinguish between events which are impossible, unlikely, even chance, likely, and certain to occur. Mark events and/or probabilities on a probability scale of 0 to 1. Know how to add and multiply fractions and decimals.  Express one number as a fraction of another. List all outcomes for a single event systematically.  Make predictions from experimental data. Complete a two-way table.	<b>3</b>	<b>9</b>		
30/11/2020	10.1 Combined events	List all outcomes for a single event systematically.  List all outcomes for two events systematically.	<b>3</b>	<b>5</b>	Use the product rule for finding the number of outcomes for two or more events. List all the possible outcomes of two events in a sample space diagram.	253 246
	10.2 Mutually exclusive events	Add decimals. Subtract decimals and fractions from 1.  Understand the relationship between ratios and fractions.	<b>3</b>	<b>4</b>	Identify mutually exclusive outcomes and events.  Find the probabilities of mutually exclusive outcomes and events.  Find the probability of an event not happening.	244/245 250
	10.3 Experimental probability	Simplify fractions.  Multiply whole numbers by decimals.	<b>3</b>	<b>5</b>	Work out the expected results for experimental and theoretical probabilities. Compare real results with theoretical expected values to see if a game is fair.	249
07/12/2020	10.4 Independent events and tree diagrams	Add and multiply fractions and decimals.	<b>4</b>	<b>7</b>	Draw and use frequency trees.  Calculate probabilities of repeated events. Draw and use probability tree diagrams.	376 252
14/12/2020	10.5 Conditional probability	Know that the probability of something not happening is 1 minus the probability of the event happening. Draw and use probability tree diagrams.	<b>5</b>	<b>9</b>	Decide if two events are independent.  Draw and use tree diagrams to calculate conditional probability.  Draw and use tree diagrams without replacement. Use two-way tables to calculate conditional probability.	249 247
	10.6 Venn diagrams and set notation	Interpret inequalities.  Use Venn diagrams.	<b>3</b>	<b>7</b>	Use Venn diagrams to calculate conditional probability.  Use set notation.	380