Supporting Your Child's Learning
Autumn Term – Year 10

At Yardleys, we understand that it can sometimes be difficult to know how best to support your children through their studies. But we also know that the more our students talk about their work, both inside and outside of school, the deeper and more flexible their learning. We need you to help us promote the school values of **curiosity** and **reflection** beyond our classrooms and, in doing so, help your child on their journey to academic success!
Below is a condensed plan of what your child will be studying in their core subjects this term, along with some suggestions of additional home learning activities - things you might watch, listen to or discuss together – in order to support their learning in school.

	Watch (Access ClickView via the 'Homework Hub' section of the VLE)	**Listen** (Use BBC Sounds and Spotify to access suggested podcasts)	**Discuss** (Start up a conversation with your child around these topics)
Autumn 1			
English Students will be reading the novel 'Frankenstein' by Mary Shelley. In this first half term, they will be focused primarily on plot and knowledge associated with close text analysis.	David Attenborough's Natural Curiosities S4 E1: 'Animal Frankenstein's' Panorama S30 E21: 'Are you Scared Yet, Human?'	'Frankenstein' audiobook 'You're Dead to Me: Mary Shelley' S2 E2 'Straight Talking English' Podcast: S6 E6 and S5 E7: The Science of 'Frankenstein'	How do we define 'beauty'? What makes someone beautiful? Is it wrong to be ambitious? How important is family? What is the job of parents? Is cloning ethical?
Maths **Foundation:** factors, multiples, powers, roots; rounding, estimation; angles, bearings and maps	http://corbettmaths.com/2012/08/11/lcm-and-common-multiples/ http://corbettmaths.com/2012/08/11/1338/ http://corbettmaths.com/2012/08/21/approximation-to-calculations/ http://corbettmaths.com/2013/04/04/parallel-lines-angles/ http://corbettmaths.com/2013/03/27/bearings/ http://corbettmaths.com/2013/11/13/maps-scales/		Why is it NOT possible to work out the HCM of two or more integers? What is special about the number of factors for ALL square numbers? What are the benefits of rounding to 1 significant figure for "estimating calculations"? What are the THREE conditions to measure, read & draw bearings?
Higher: factors, multiples, indices, linear equations and linear inequalities, y=mx+c, inequalities and regions	https://corbettmaths.com/2012/08/11/lcm-and-common-multiples/ https://corbettmaths.com/2013/03/13/laws-of-indices-algebra/ https://corbettmaths.com/2015/12/07/equations-involving-algebraic-fractions-advanced/ http://corbettmaths.com/2013/05/12/solving-inequalities-two-signs/ http://corbettmaths.com/2013/05/27/inequalities-and-regions/		TRUE or FALSE: The LCM of any two integers, a & b = is ab? How many index laws can you recall? Are there any special cases? Can all linear equations be solved? What is wrong with this inequality: $-3 > x < 2$? How do the gradients of two straight lines tell us if they are perpendicular to one another or not?
Science **Biology:** Plant Structures and their functions	David Attenborough's 2022 series 'Green Planet'	Jatropha: The Wonder Plant (BBC Sounds)	Is the Jatropha plant the solution to the word's energy needs?

			Where does the food you eat come from (fruit and veg.)? Can we grow it here? Do we have food security/what threatens it?
Physics: Nuclear Radiation	'Inside Chernobyl' with Ben Fogle Netflix series 'The days' (rated 15) about Fukushima disaster		Do the advantages of nuclear power outweigh the costs? Would you live near a nuclear power plant?
Chemistry: Chemical Changes	https://www.osc.org/diy-ph-indicators-kitchen-chemistry/ make you own indicator and test your household substances		Why do different cleaning products in your kitchen and bathroom have a different PH? How do they work?
Autumn 2			
English Students will finish reading the novel 'Frankenstein' and will think about whole text response style answers. In doing so, they might explore literary criticism..	What makes 'Frankenstein' a Classic? Mary Shelley's Frankenstein: Frankenstein and the Monster	'Teach Me a Lesson' podcast S1 E1: Are People Born Evil? 'Straight Talking English' Podcast: S5 E8 and S5 E9: Victor Frankenstein and The Monster	Are people born evil? Do we have the capacity to change our behaviour? How in control of our actions are we? Do you believe in fate or free will?
Maths **Foundation:** Indices, expanding and factorising brackets, FDP, rules of fractions, percentages	http://corbettmaths.com/2013/03/13/laws-of-indices-algebra/ http://corbettmaths.com/2013/12/23/expanding-brackets-video-13/ http://corbettmaths.com/2013/03/29/fractions-to-percentages/ http://corbettmaths.com/2012/08/20/percentages-of-amounts-non-calculator/		Can you RECALL the first three index laws? Are there any special cases? What is the difference between "factorise and factorise fully"? How many different ways can you factorise $24x^2 - 16x$? Where does the word "percentage" come from and is it always out of 100? Which one is greater: 30% of £80 or 80% of £30?
Higher: Ratio, solving quadratics through factorising and formula, Non - Calc trig, sine rule and area sine rule	http://corbettmaths.com/2013/03/03/ratio-sharing-the-total/ http://corbettmaths.com/2013/02/06/factorising-quadratics-1/ http://corbettmaths.com/2013/04/20/exact-trigonometric-values/ http://corbettmaths.com/2013/05/03/sine-rule-missing-sides/		Can you write any ratio as a fraction and any fraction as a ratio? Can ALL quadratics be factorised? If NOT, why NOT? How many different ways can you solve a quadratic? How can you use SOH & CAH to create TOA? Is there a connection between ratios and SOHCAHTOA? What are the conditions needed on a triangle for the "Sine Rule" to work?
Science **Biology:** Animal Coordination, Control and Homeostasis	Diabetes & Hyperthyroidism	Africa Daily: Is Diabetes in Africa a Ticking Time Bomb?	Why is it important to drink plenty of water?
Physics: Astrophysics	Discovering Our Place in Space	5 Live Science Podcast - Space Travel	Does the future of human existence mean moving to other planets?
Chemistry: Chemical Changes and Electrolysis	Do: make a stop-motion movie of electrolysis taking place		Debate whether you think it's better to promote recycling or raw materials, or to extract them by electrolysis from new ore? What drawbacks are there?
In the final week of the Autumn Term (w/c 14.12.26), students will be examined on their knowledge in all subjects during a whole school assessment week.			