

Year 13 Super Curriculum

The Nobel Super Curriculum

In this booklet, you will find a range of challenges that encourage you to think about the learning that you can do outside of your lessons to become a more active and independent learner.

Whether you are applying your knowledge of the marketing mix to an episode of 'Dragon's Den', reading about the top ten equations that changed the world or researching the 'God particle', we hope that these activities inspire you to think independently about your learning. You might even be able to teach the staff a thing of two!

In an increasingly competitive job market, employers are looking for candidates who are able to think creatively and use their initiative to solve problems. Equally, the best universities want students who can think for themselves and participate in their learning. Activities on the super curriculum are designed to allow you to practise these skills and to give you evidence for applications in the future.

You should ask staff for guidance if you are unsure about any of the challenges. Please also tell your teacher when you 'complete' all nine activities for a subject. We will be interested to discuss this with you.

Finally, if you have any ideas about how we can improve the super curriculum, particularly if you have any ideas for challenges, please let your teacher know.

We hope that you enjoy the activities.

Bethany Jones
Teacher of Science

Nick Brown Assistant Headteacher

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Art

Know It	Use It	Stretch It
Watch extracts from the BBC Series 'The Power of Art' with Simon Schama and make bullet point notes, thinking about how you	Join a life drawing class and use the drawings to include in your portfolio.	Volunteer to support a KS3 lesson of Art during one of your study periods.
apply this to your A level study. https://www.bbc.co.uk/arts/powerofart/intro.shtml [3 Super Curriculum House Points]	[4 Super Curriculum House Points]	[4 Super Curriculum House Points]
Read 'The illustrated story of Art' by DK and make bullet point notes, thinking about how you apply this to your A level study. https://www.amazon.co.uk/lllustrated-Story-Art-Dk/dp/1409316084/ref=sr 1	Lead an art club and run sessions for younger learners. Take responsibility for creating exciting art work across the school. [5 Super Curriculum House]	Present your experience as an annotated journal and include it in your portfolio to share at interview. Share it through the Nobel News or the school's Facebook or Twitter pages.
7?s=books&ie=UTF8&qid [3 Super Curriculum House Points]	Points]	[3 Super Curriculum House Points]
Listen to the Grayson Perry Reith lectures: 1. Democracy has bad taste: http://www.bbc.co.uk/progra mmes/b03969vt 2. Beating the Bounds: http://www.bbc.co.uk/progra mmes/b03dsk4d 3. Nice rebellion, welcome in! http://www.bbc.co.uk/progra mmes/b03f9bg7 4. I found myself in the art world: http://www.bbc.co.uk/progra mmes/b03g9mn1 [3 Super Curriculum House Points]	Visit the Saatchi Gallery in person or virtually and record your visit. https://www.saatchigallery.com/ [3 Super Curriculum House Points]	Learn a new technique- Enrol on one of the ART VAN GO Creative Workshops https://www.vycombe- arts.co.uk/ [3 Super Curriculum House Points]

Business Studies

Know it	Use it	Stretch it
Keep a folder of business news articles that you have read that you believe are of significant importance- highlight the parts that you believe to be most important.	Read an autobiography written by an entrepreneur that has inspired you. [4 Super Curriculum House Points]	Attend and help out at social sciences research club for half a term. [5 Super Curriculum House Points]
[3 Super Curriculum House Points]		
Watch BBC Panorama Amazon – The truth behind the click https://www.youtube.co m/watch?v=JwrUYS9UT eU How well does online retailer Amazon treat its workers? [3 Super Curriculum House Points]	Read Management in Ten Words by Terry Leahy and write a one-page summary on what he recommends. [4 Super Curriculum House Points]	Write an article about the strategy that a business of your choice has used to grow. You should use models such as Ansoff's Matrix, The Boston Matrix and Porter's Five Forces to support your writing. [5 Super Curriculum House Points]
Research a global business and think about how they have considered the following when expanding: cultural differences, different tastes, language, unintended meanings, inappropriate/inaccurate translations, inappropriate branding and promotion. [3 Super Curriculum House Points]	Find an interview on YouTube about the corporate culture of a business - if you have a job, you could think about the corporate culture of the business you work for. Write a summary about the corporate culture, using the classification of cultures to guide you. [3 Super Curriculum House Points]	Listen to the podcast CEO of Netflix: Reed Hastings Where Kamal Ahmed and Rohan Silva lift the lid on the realities of starting your own business. Today, founder and CEO of Netflix, Reed Hastings. https://www.bbc.co.uk/programm es/m000rtg0 [4 Super Curriculum House Points]

Computing

Know It	Use It	Stretch It
Watch the film: The Imitation Game https://www.imdb.com/title/tt 2084970/ Maybe this will inspire you seeing how computers have aided us in the past. [3 Super Curriculum House Points]	The GCHQ Puzzle Book: Why not pit your wits against the people who cracked the Enigma? This book will have you scratching your head for hours trying to solve some challenging problems. [4 Super Curriculum House Points]	CyberFirst – Research careers and apprenticeships offered by GCHQ https://www.gchq- careers.co.uk/cyberfirst.ht ml [4 Super Curriculum House Points]
Use the Prospects website to research IT job roles. For example: https://www.prospects.ac.uk /job-profiles/software-engineer [3 Super Curriculum House Points]	Search UCAS for courses that would help you to start a career in IT. https://www.ucas.com/ Research apprentice opportunities in IT https://amazingapprenticesh ips.com/ [3 Super Curriculum House Points]	Start looking to see what IT jobs are available in this area www.jobserve.com [3 Super Curriculum House Points]
Follow computer science topics on the BBC news https://www.bbc.co.uk/news/technology and click https://www.bbc.co.uk/programmes/b006m9ry and follow @computerworld and @computerweekly on Twitter [3 Super Curriculum House Points]	Keep a journal of technology issues from the sources listed in 'know it'. [4 Super Curriculum House Points]	Pick a range of technology issues and write an A4 page for each that describes the legal and ethical issues that these raise. [4 Super Curriculum House Points]

Design Technology

Know It	Use It	Stretch It
Attend a university degree	Visit the Natural History	Attend a DT club
show for inspiration.	museum:	
	http://www.nhm.ac.uk/	[2 Super Curriculum
[3 Super Curriculum	_	House Points]
House Points]	Or .	
	Read and write your	
	thoughts the Natural	
	History Museum	
	'Discover' section	
	https://www.nhm.ac.uk/dis	
	<u>cover.html</u>	
	[0, 0, 0,	
	[3 Super Curriculum	
	House Points]	
Visit the four designers	Visit the Science	Support a KS3 DT lesson
conference/the design	museum; find an	during one of your free
fair/design festival.	interactive exhibition	Periods.
	that uses new technology.	
Or	https://www.sciencemuse	[4 Super Curriculum
Read about the 'Past	<u>um.org.uk/</u>	House Points]
Landmark Projects' and	_	
write your thoughts your	Or	
favourite design	Read and explore the	
https://www.londondesign	Science Museum	
<u>festival.com/</u>	Collection	
	https://collection.science	
	museumgroup.org.uk/sea	
	rch/objects	
[3 Super Curriculum	[3 Super Curriculum	
House Points]	House Points]	
Watch the Christmas	Choose a fusion 360	Organise a group of
lectures:	tutorial by Lars	young designers and take
http://www.rigb.org/christ	Christiansen and	part in the national
mas-lectures	have a go at it.	science and engineering
	_	competition:
[3 Super Curriculum	[3 Super Curriculum	
House Points]	House Points]	http://www.nsecuk.org/
		[5 Super Curriculum
		House Points]
		_

Drama

Scheme of Work	Know It	Use It	Stretch it
Set text – Hedda Gabler	Create revision cards for each character including physical appearance, motivation, relationships with others development motivation and intention in each appearance.	Prepare a presentation on your concept for a production in performance. Make sure the presentation covers, staging form, set, costume, lights and sound.	Attend a drama club [2 Super Curriculum House Points]
Set text - Bronte	Create revision cards for each character including physical appearance, motivation, relationships with others development motivation and intention in each appearance.	Prepare a presentation on your concept for a production in performance. Make sure the presentation covers, staging form, set, costume, lights and sound.	Create your own revision guide that you can distribute to your peers. Include your own exam questions for practice.
Component 2 - Devising	Carry out extensive research your chosen stimuli including historical and social context of the artist/author.	Create a storyboard of ideas for chosen idea - include outlines of how each idea would evolve using your chosen practitioners.	Write a script for chosen idea - making sure that your chosen practitioner's ideology is embedded within it.
Component 3 - Text performance	Carry out extensive research into your given play and playwright including historical and social context of the play itself.	Watch previous productions of your chosen play on DVD or on line – make notes of how the actors approached your given role.	Video rehearsals, watch and write a review of the performance as if for a for a newspaper review.
Review	Make revision cards for each live production seen: - include Key moments, Character profiles, lights sound, costume and physical performances.	Create a display about Wicked – find pictures, quotes, reviews making sure that the display acts as an educational tool for your peers.	Create your own revision guide that you can distribute to your peers. Include your own exam questions for practice.

Economics

Know It	Use It	Stretch It
Read The Undercover Economist Strikes Back by Tim Harford This gives clear explanations of how the whole world economy works, especially post 2008 financial crisis. [3 Super Curriculum House Points]	Using the BBC, World Bank or Bank of England website write a 2-page report on the current state of the UK economy and predictions for the year ahead. [4 Super Curriculum House Points]	Attend and help at social sciences research club for half a term. [5 Super Curriculum House Points]
Listen to the podcast More or Less where Tim Harford and his team explain – and sometimes debunk – the numbers and statistics used in politics, the news, and throughout everyday life on this weekly podcast from BBC Radio 4. https://www.bbc.co.uk/programmes/b006qshd/episodes/player [3 Super Curriculum House Points]	Watch Prime Ministers Questions for three weeks in a row. Note what the debates over current economic issues are. [4 Super Curriculum House Points]	Choosing a topical economic debate find out the opposing views from the Labour and Conservative party – try to link these to principles in economics that you have already studied. [4 Super Curriculum House Points]
Read 23 Things They Don't Tell You About Capitalism by Ha-Joon Chong [3 Super Curriculum House Points]	Using the book, 23 Things They Don't Tell You About Capitalism by Ha-Joon Chong and write a one page summary on why the author argues that the "washing machine has changed lives more than the internet." [4 Super Curriculum House Points]	Listen to Donut Economics, a podcast with the economist Kate Raworth who argues that the pursuit of G.D.P., argues the economist short-changes too many people and destroys the planet. https://freakonomics.com/po dcast/is-economic-growth- the-wrong-goal-ep-429/ Compare and contrast her views with those of Ha-Joon Chong. [5 Super Curriculum House Points]

English

Know It	Use It	Stretch It
Read this article about the potential uses of the 'body text' https://fivedials.com/fiction/the-body-text-speaks-alantrotter/ [3 Super Curriculum House Points]	Find an example of an author using the 'body text' in an interesting way. [3 Super Curriculum House Points]	Attend an English club [2 Super Curriculum House Points]
Read a long form newspaper article, like this one about the 'ideal woman': https://www.theguardian.co m/news/2019/aug/02/athleis ure-barre-kale-tyranny-ideal- woman-labour [3 Super Curriculum House Points]	Read another long form article from the guardian website and identify the ways that longform writers (like fiction writers) engage the reader. [3 Super Curriculum House Points]	Write your own long form article about a subject that interests you. [4 Super Curriculum House Points]
Watch Inua Ellan talk about the way that he uses literature to discuss race: https://www.youtube.com/watch?v=ISy73_dPKbA [3 Super Curriculum House Points]	Watch Inua Ellams perform his poetry. An example is this: https://www.youtube.com/w atch?v=iV3TvHYGjh8 [3 Super Curriculum House Points]	Write your own poem about an issue that is important to you or a place that is special to you. [4 Super Curriculum House Points]
Please share your findings with your teacher.		

Geography

Know it	Use it	Stretch it
Read Geography Review (magazine) from the Library/Hu01. [3 Super Curriculum House Points]	Find a relevant article to what you are learning and produce a presentation for your class. [4 Super Curriculum House Points]	Attend a Geography club or support at one [2 Super Curriculum House Points]
Read Wider World (magazine) from the Library/Hu01. [3 Super Curriculum House Points]	Research: What have been the main drivers and players leading to the expansion of the globalised world? [4 Super Curriculum House Points]	Write an essay to answer: Is there evidence to suggest that anti-globalisation movements are threatening globalisation processes? [5 Super Curriculum House Points]
Read BBC news and reliable newspapers to research world news. [3 Super Curriculum House Points]	What are the impacts of globalisation on international migration? [4 Super Curriculum House Points]	Answer the following question: What are the threats to national sovereignty in a more globalised world? [4 Super Curriculum House Points]

Health and Social Care

Know It	Use It	Stretch It
Explore the learning resources on the following website about Mental health: https://museumofthemind.or g.uk/ [3 Super Curriculum House Points]	Listen to the podcast Why nursing? about a student nurse's experiences in getting into nursing. Write a summary of any misconceptions you had and what you learned from listening https://open.spotify.com/episode/7Hkm6GcMsSNzBMrTnuAAgs?si=1tbKMWFkTTGHDjic1HzjoA&nd=1 [4 Super Curriculum House Points]	Attend social sciences research club [5 Super Curriculum House Points]
Watch the panorama programme about Children's mental health: https://www.bbc.co.uk/iplaye r/episode/b0blqkd0/panoram a-kids-in-crisis [3 Super Curriculum House Points]	Find out what child and adolescence mental health services are available in Stevenage and the local area to support children and adolescents. [4 Super Curriculum House Points]	Read the summary of the recent report into Children and Adolescents mental health and the government's action plan: https://webarchive.nationalarchives.gov.uk/20090615071556/http://publications.dcsf.gov.uk/eOrderingDownload/CAMHS-Review.pdf [4 Super Curriculum House Points]
Read Tea and Chemo by Jackie Buxton How to live with cancer. https://livebetterwith.com/ products/tea-chemo- fighting-cancer-living-life- by-jackie-buxton/ [4 Super Curriculum House Points]	Read The fault in our stars by John Green paying particular attention to the role cancer support groups play in supporting patients. [4 Super Curriculum House Points]	Investigate what benefits someone is eligible for when they have terminal cancer and are no longer able to work. [4 Super Curriculum House Points]

History

Know It	Use It	Stretch It
Keep a reading journal of articles, essays and additional books you have read. There are many books in	Write a journal article on a controversial topic we have studied giving your historical view. [5 Super Curriculum	Go to the school History club and get involved in some of their exciting events!
the history department and copies of the 'History Review' in the library.	House Points]	[3 Super Curriculum House Points]
[3 Super Curriculum House Points]		
Read a biography / autobiography of a historical figure we have studied as part of your A-Level. THIS MUST BE	Analyse a historical source from the Tudor era. Create a presentation for	Write an academic review of a recently published historical work in a field you are interested in.
DIFFERENT TO THE ONE YOUR READ IN YEAR 12	your class on its usefulness. [3 Super Curriculum House Points]	We have looked at examples of academic reviews as part of our coursework.
[4 Super Curriculum House Points]		THIS MUST BE A DIFFERENT PIECE OF WORK TO THE ONE YOUR CHOSE IN YEAR 12 [5 Super Curriculum House Points]
Listen to Dan Snow's "History Hit" podcast: https://www.historyhit.com/p odcasts/	Create a detailed timeline for each historical period we have studied including a minimum of 50 events.	Read a Historical non-fiction book about a period of history you have never studied before e.g. Ancient China.
There are hundreds to choose from! [3 Super Curriculum	THIS MUST BE A DIFFERENT PERIOD TO THE ONE YOUR CHOSE IN YEAR 12	THIS MUST BE A DIFFERENT PERIOD TO THE ONE YOUR CHOSE IN YEAR 12
House Points]	[3 Super Curriculum House Points]	[3 Super Curriculum House Points]

Maths

Know It	Use It	Stretch It
Watch the videos from the examsolutions website to support your learning in lessons: https://www.examsolutions.net/a-level-maths/edexcel/ [3 Super Curriculum House Points]	Consolidate a set of notes from these and ensure that all worked solutions you use are fully understood. [4 Super Curriculum House Points]	Attend a maths club [2 Super Curriculum House Points]
Use Dr Frosts Maths resources and PowerPoints, like this one on proof by contradiction: https://www.drfrostmaths.co m /resource.php?rid=301 [3 Super Curriculum House Points]	Find out and attempt Fermat's Last Theorem: What is the Last Theorem? - Simon Singh [3 Super Curriculum House Points]	Look at some of the TedEd videos that show maths in a more interesting way: https://www.youtube.com/us er/TEDEducation In particular a clip which was recommended to us by a student: https://www.youtube.com/watch?v=Uj3_Kqkl9Zo [3 Super Curriculum House Points]
Research some of the amazing types of proofs that have been done in maths including US President Garfield (Pythagoras) and Euclid's proof from 300BC regarding prime numbers [4 Super Curriculum House Points]	Visit madasmaths.com an amazing website that will support your revision and help you to challenge yourself. https://app.mymaths.co.uk/myportal/library/9/455 [3 Super Curriculum House Points]	Look at the site Underground Maths and try some of the challenging questions: https://undergroundmathem atics.org/ [3 Super Curriculum House Points]

Media Studies

Know It	Use It	Stretch It
1. Narrative starts with an equilibrium. 2. Something disrupts the equilibrium. 3. Quest to restore the equilibrium. 4. The narrative continues to a climax. 5. Resolution occurs and equilibrium is restored. Apply this to one of your favourite films. [3 Super Curriculum House Points]	MICRO ANALYSIS Watch this scene from Fincher's Zodiac: https://www.youtube.com/watch?v=VIy-X8-pEoU. How do the micro elements contribute meaning? Refer to editing, cinematography, mise en scène and sound, alongside the macro elements: genre, narrative and representation. [4 Super Curriculum House Points]	Attend a media club [5 Super Curriculum House Points]
PERSONNEL Imagine you are the Production Manager for the filming of an artist's music video. Plan a production schedule containing personnel, the timing of their roles, milestones and deadlines. [3 Super Curriculum House Points]	STORYBOARD You are in pre-production for an artist's music video. Create a storyboard for the opening, or ending. You need to include details about: shot sizes, camera angles & movement, timings and any sounds in addition to the music. [4 Super Curriculum House Points]	FILMING You are now producing your artist's music video. Use your storyboard to film the beginning, or ending (or really stretch to try the whole song). You can use an existing song, but will need to reference for copyright reasons. [4 Super Curriculum House Points]
PRINT ANAL YSIS Choose a magazine cover and label all the elements, including masthead, cover lines, cover image, mode of address etc. [3 Super Curriculum House Points]	SCRIPT WRITING Record a conversation with a friend, then write it as a script. Include conventions, such as slug lines. [4 Super Curriculum House Points]	WATCHING Try to tick off as many films as you can on Empire's 'The 100 Greatest Movies' list. [4 Super Curriculum House Points]

Physical Education

Know It	Use It	Stretch It
Read the journals of: - Applied physiology, sport and society - Sport and exercise psychology Ask your PE teacher about how to locate these. [3 Super Curriculum House Points]	Write a glossary of anatomy and physiology used in your sport. [4 Super Curriculum House Points]	Attend a school sports club. Consider trying a new sport or leading a warm up. [4 Super Curriculum House Points]
Visit the University of Hertfordshire or Bedfordshire Physiology laboratories. [3 Super Curriculum House Points]	Write a report on the tests and investigations carried out. [4 Super Curriculum House Points]	Create a coaching plan for any sport. [4 Super Curriculum House Points]
Watch the following documentaries/films: Icarus (2017) Bryan Fogel,Netflix Sports Science (2013) ESPN The Program (2015) [3 Super Curriculum House Points]	Write a report on one of the films/documentaries you've watched and state the main findings from it. [4 Super Curriculum House Points]	Assess another performance and highlight areas of strength and areas for development. [4 Super Curriculum House Points]

Philosophy & Religion Education

Know It	Use It	Stretch It
Women and the Church: Read Chapter 13 of Bible Matters by Peter and Charlotte Vardy (details available on reading list) [3 Super Curriculum House Points]	Body and Soul: Read Chapter 11 of The Selfish Gene by Richard Dawkins (details available on reading list) [3 Super Curriculum House Points]	Religious Experience: Watch The Stanford Prison Experiment: https://www.youtube.com/w atch?v=760lwYmpXbc What, Where, When, Why, Who and How? OR come and help run either philosophy film club or mindfulness club at lunchtime for a few weeks [4 Super Curriculum House Points]
Language: Watch the TedTalk on How Languages Evolve: https://www.youtube.com/w atch?v=iWDKsHm6gTA [3 Super Curriculum House Points]	Karl Marx: Online research on Karl Marx: http://www.bbc.co.uk/history /historic figures/marx karl.s html Read and make your own notes on this topic. [4 Super Curriculum House Points]	Conscience: Online research on peped.com - For an introductory lesson, listen to a lecture about Abu Ghraib prison and how good people "turn evil": http://www.ted.com/talks/lan g/eng/philip zimbardo on t he psychology of evil.html [3 Super Curriculum House Points]
Secularism: Listen to the following podcast on science and knowledge: https://play.acast.com/s/philosophyforourtimes/e15-everything-we-know-is-wrong-lawrence-krauss-kenneth-cukier-steve-fuller Everything We Know Is Wrong Lawrence Krauss, Kenneth Cukier, Steve Fuller [3 Super Curriculum House Points]	Sexual Ethics: Listen to any of the podcast on LGBT https://player.fm/featured/lgbt [3 Super Curriculum House Points]	Philosophy and Ethics: Look at the upcoming talks at Cambridge University and attend one of interest http://talks.cam.ac.uk/ [4 Super Curriculum House Points]

Psychology

Know It	Use It	Stretch It
Identify the difference between using twin studies, adoption studies and family studies when conducting research on the onset of the development of mental health. Then, identify which of the studies listed above would be the most beneficial. [3 Super Curriculum House Points]	Research the genetic influences on the development of mental illness. Focus your research on disorders such as depression and bipolar in order to identify the concordance rates between families. [4 Super Curriculum House Points]	Volunteer at psychology club for half a term, helping younger students discover the wonders of the subject. [5 Super Curriculum House Points]
Identify the difference between using biological treatments and non-biological treatments in order to treat patients with mental health. Then, report on the benefits and drawbacks of each. [3 Super Curriculum House Points]	Read The History & Evolution of Mental Health & Treatment found here: https://sunrisehouse.com/re search/history-evolution- mental-health-treatment/ Create a timeline summarising key events. [4 Super Curriculum House Points]	Create an information leaflet to be handed out to individuals suffering from mental health problems. The aim of this leaflet is to educate people on the genetic influences on mental health. [4 Super Curriculum House Points]
Research the work done by Bowlby and Ainsworth on the development if attachment. Identify the importance of early attachment and explain the effects that children may suffer from if their fail to develop a strong attachment with their primary caregiver in the first years of life. [4 Super Curriculum House Points]	Distinguish between the three different types of attachments that Ainsworth has identified. Based on your research, how do we educate new parents on the important of attachment and the drawbacks of lack of attachment? [4 Super Curriculum House Points]	Advise the management of a new nursery on how to improve the attachment levels they have between children and key workers. Do this by creating a PowerPoint that has all the details on the important of attachment and how to maintain staff members. [4 Super Curriculum House Points]

Science

Biology

Know It	Use It	Stretch It
Visit a local nature reserve or walk through a wood or field area.	Join a volunteer group or spend a day volunteering with a group that works with countryside or conservation.	Take part in the Science club and help to deliver one of the weekly tasks/experiments.
Consider each active management point and investigate if there are examples of: Controlled grazing. Restricting human access.	Write up your experience explaining what was being done and why it was being done. Include photographs of the work – perhaps before and after!	(5 Super Curriculum House Points)
 Controlling poaching. 		
Feeding animals.	(4 Super Curriculum House	
 Reintroduction of species. 	Points)	
 Culling and removal of invasive species. 		
 Halting succession. 		
Coppicing.		
Write a short report of your findings include photographs. (3 Super Curriculum House Points)		
Create a poster that compares stem cells of animals and plants. Be sure to include images as well as cite your sources. (3 Super Curriculum House Points)	Read The immortal life of Henrietta Lacks by Rebecca Skloot. About HeLa cells and the ethics behind it. Write up a synopsis of the book and the ethical issues being demonstrated. (4 Super Curriculum House	Research into the concept of "cuttings" in plants and perform your own at home. Prepare a presentation and include images, as well as scientific explanations of the process and how it occurs. (5 Super Curriculum House
,	Points)	Points)
Create a poster / timeline that outlines the mapping of the human genome including key scientists, discoveries and any ethical issues that have arisen. (3 Super Curriculum House Points)	Research DNA tests (Ancestry, 23andMe,MyHeritage). Outline how these tests work and the science behind their creation. If possible, have your own DNA done and write a response to your results. (4 Super Curriculum House Points)	Select and read one of the following books: -My Sister's Keeper -Never Let Me Go Outline the conflicts in bioethics related to stem cell research and cloning. (5 Super Curriculum House Points)

Chemistry

Know It	Use It	Stretch It
Make a list of transition metals and compounds containing transition metals and describe their properties. [3 Super Curriculum House Points)	Research why ice floats on water. Use the knowledge you have learnt in chemistry and use this information to describe the uses of this in nature and in everyday life.	Attend Chemistry café with Ms Redmond, and discuss recent ideas from you lesson. Help a student in the lower years understand a new concept. [5 Super Curriculum House Points)
	[4 Super Curriculum House Points)	
Read New Scientist A magazine that covers all aspects of science and technology. The link takes you to the home page where articles related to Chemistry have been aggregated. https://www.newscientist.com/article-topic/chemistry/ [3 Super Curriculum House Points)	Watch the Periodic Videos that remind you why you wanted to study Chemistry in the first place! These are fairly short, fun and digestible videos. Make a summary to describe why you love chemistry and show it to your teacher [4 Super Curriculum House Points)	Stretching back to 2008, this element-focused podcast (Chemistry in its element) covered the periodic table by 2010 and has since started covering basic compounds. When you have listed to this come in and discuss with your fellow chemists. [5 Super Curriculum House Points)
Make a summary of all the organic chemistry reactions you know from year 12 before you start the year 13 synthetic chemistry section. [3 Super Curriculum House Points)	Use the chemistry you learnt to help a student lower down the school in a an intervention or tutoring class after school. [4 Super Curriculum House Points)	Chemistry for your life podcast A chemist explains the technical aspects of chemistry to a non-chemist, while they actively try to understand it and ask their own questions that often represent misconceptions or knowledge gaps that non-chemists may have. Make a summary of your findings from this pod cast. [5 Super Curriculum House Points)

Physics

Know It	Use It	Stretch It
Materials: Research	Materials: Compare the	Volunteer at a year 11
common materials for bridge	material properties of	tutoring session or KS3
building. Look up the	carbon fibre and titanium.	science club.
Young's modulus for each	Using calculations and	
and compare to each other.	additional research write a	[5 Super Curriculum House
[3 Super Curriculum House	PowerPoint slide which summarises why jet engine	Points]
Points]	manufacturers might be	
i onitoj	changing from titanium fan	
	blades to carbon fibre.	
	[4 Super Curriculum House	
	Points]	
Astrophysics: Create a	Astrophysics: Use your	Astrophysics: Research the
poster summarising the key	knowledge of the life cycle	theories for how the
events in the formation of	of stars to create a board	universe will end.
the universe, from the big	game for GCSE students to	Summarise them on a
bang to the present day.	use to learn the key stages.	PowerPoint slide each.
[3 Super Curriculum House	[4 Super Curriculum House	[5 Super Curriculum House
Points]	Points]	Points]
Fields: Create a PowerPoint	Fields: Through calculation,	Fields: Create a
summarising the similarities	demonstrate how a small	spreadsheet model of
and differences between	polystyrene ball could be	planetary orbit. Use: <u>Orbits</u>
gravitational and electric	made to levitate in an	<u>Using Excel</u>
fields.	electric field.	(batesville.k12.in.us) to help.
		Can you expand your model
[3 Super Curriculum House	[4 Super Curriculum House	for more than 1 moving
Points]	Points]	body?
		[5 Super Curriculum House
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Applied Science

Know It	Use It	Stretch It
Create risk assessment for a practical that you have completed in years 7-11. [3 Super Curriculum House Points]	Research DNA tests (Ancestry, 23andMe, MyHeritage). Outline how these tests work and the science behind their creation. If possible, have your own DNA done and write a response to your results. [4 Super Curriculum House Points]	Attend/ help out with a Science club for at least three weeks in a row. [5 Super Curriculum House Points]
Create a guide to using a light microscope for a year 7 student. [3 Super Curriculum House Points]	Make a step-by-step guide to explain how to use a graticule correctly. [4 Super Curriculum House Points]	Complete a piece of research into the different kinds of microscopes that exist, commenting on how they work, their advantages and disadvantages and include some images taken from them. Ensure that you have fully references your work. [5 Super Curriculum House Points]
Read New Scientist magazine that covers all aspects of science and technology. The link takes you to the home page where articles related to Chemistry have been aggregated. https://www.newscientist.co m/article-topic/chemistry/ [3 Super Curriculum House Points]	Use the Science you learnt to help a student lower down the school in an intervention or tutoring class after school. [4 Super Curriculum House Points]	Write your own magazine article for a topic within science of your choice that could be published in the Nobel News. Where you have used sources, please make sure that these are referenced. [5 Super Curriculum House Points]

Sociology

Know It	Use It	Stretch It
MONOPOLISATION OF	TUTORING	ENRICHMENT
Research Rupert Murdoch and his media empire. Read news articles and watch the documentary below. Then write a summary of what the issues with a monopoly of the media are. https://www.bbc.co.uk/iplayer/episodes/m000kxw1/the-rise-of-the-murdoch-dynasty [3 Super Curriculum House Points]	Offer to support a student from year 12 in their studies. Run tuition sessions with them in which you advise them on how to be successful and tutor them on topics they are struggling with. [4 Super Curriculum House Points]	Help out younger students at social sciences research club for half a term. [5 Super Curriculum House Points]
CRIME AND ETHNICITY Listen to Helena Merriman's podcast on BBC – "Why do American police kill so many black men?" Summarise the key points in your own words. https://www.bbc.co.uk/programmes/b060zg8g [3 Super Curriculum House Points]	CONDUCT RESEARCH Conduct your own research into victimisation – you may wish to explore how fear of victimisation varies across groups. You can choose your own method, justify why you chose it, conduct your research and then create a display of your findings and conclusions. [4 Super Curriculum House Points]	REFORMING JUSTICE Research the arguments of the Howard League. Using sociological evidence and additional research, write a critical evaluation of the use of prisons in the UK. Is it an effective response to crime? What would you argue is the most effective way it could be reformed? https://howardleague.org/ [5 Super Curriculum House Points]
Produce a summary of each of the core theoretical perspectives covered on your course (Marxism, feminism, functionalism, postmodernism and social action theories) which could be given to introduce younger children to the perspectives. [3 Super Curriculum House Points]	APPLY YOUR KNOWLEDGE Watch or read the news on a regular basis – see how many events you can link to the concepts, ideas and theories you have learned about in class. Note these down and then try and apply sociological evidence to the topics you discover. [4 Super Curriculum House Points]	SOCIAL POLICY Create a list of social problems we have addressed/uncovered for each topic in crime and deviance and media. For each, try to come up with a policy which could address this issue and explain how. [5 Super Curriculum House Points]