



FEARNHILL
SCHOOL

Year 11

Super Curriculum

The Fearnhill School Super Curriculum

The super curriculum at Fearnhill is designed to give you something extra outside of the learning you do in the classroom to:

- build your independence as a curious thinker,
- fire your passion for your favourite subjects,
- and broaden your knowledge of the wider world.

In this booklet, you will find a range of challenges for each subject for you to complete in your own time. They can be done in any order you like.

There are three challenges per subject divided into three levels of difficulty and effort: 'Figuring It Out' (easiest), 'Freewheeling' (more challenging), and 'Flying' (most challenging).

As you complete the challenges, you'll be given reward points, and if you complete all the 'Flying' challenges in any subject, you will be put forward to join our Fearnhill Flyers programme. Just show your teacher (or Miss Corbishley) evidence of what you've done!

So whether you are developing an art sketchbook, learning to play a musical instrument, vying to be captain of a sports team, or developing code breaking skills, I hope these challenges will inspire you to think about your own development as a learner.

Please do discuss these challenges with your friends and family – there are no rules saying you have to complete them on your own.

I hope you find these enjoyable, and wish you luck!

Yours, Miss Corbishley.

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Art

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	<p>Use and take notes from GCSE Bitesize Art and Design:</p> <p>https://www.bbc.com/bitesize/subjects/z6hs34j</p>	<p>Visit any of the Tate Galleries including: Tate Britain, Tate Modern, Tate Liverpool or Tate St Ives:</p> <p>http://www.tate.org.uk/visit/tatmodern http://www.tate.org.uk/visit/tateliverpool http://www.tate.org.uk/visit/tate-stives</p>	<p>Fill a concertina sketchbook with records of all your Art based visits documenting the journey across many pages through drawing, photography and mixed media.</p>
Challenge 2	<p>Explore 10 Textile Artists and their techniques:</p> <p>https://www.textileartists.org/10-contemporary-embroidery-artists</p>	<p>Visit one of the annual Knit, stitch shows, and complete one of the free workshops on offer:</p> <p>https://www.theknittingandstitchingshow.com/</p>	<p>Record your experiments with the new techniques and make textile samples inspired by your artist research.</p> <p>Share with your Art teacher and class.</p>
Challenge 3	<p>Research the development of Graphic Design over the last 50 Years:</p> <p>http://graphics50.rca.ac.uk/#about</p>	<p>Try out some advanced techniques using Photoshop:</p> <p>https://blog.advancedphotoshop.co.uk/category/tutorials/</p>	<p>Visit the New Designers Exhibition- an annual showcase of new Art and Design Graduate talent:</p> <p>https://www.newdesigners.com</p>

Business

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Download the BBC News app, and select 'Business' under 'My Topics'. Read at least one Business article per day.	Write a blog post about how a business of your choice has adapted to meet the expectation of consumers that products should be produced ethically and in an environmentally friendly way.	Conduct an interview with the manager of a medium to large business about how the business they work for has used internal and external growth strategies to expand.
Challenge 2	Watch an episode of Dragon's Den. Select one of the products that are pitched to the Dragons' and explain why you think the product would or would not be successful, using the marketing mix to support your argument.	'Businesses should make long term investments in environmentally friendly production as it will help reduce costs'. Using research, evaluate this statement, creating an argument for and against.	Deliver a presentation to your class about the marketing mix of a product of your choice. Your presentation should have a section on each of the 4 P's.
Challenge 3	Research three different person specifications and job descriptions for three different companies and make a note about how they are different to each other.	Using research, create an outline organisational structure for a business of your choice.	Write an article about the benefits and drawbacks of Britain leaving the European Union (Brexit). Take into account possible changes in: unemployment, consumer income, inflation, interest rates, government taxation and exchange rates.

Computing

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	<p>Making all knowledge computational: Watch the TedTalk on Computing a theory of everything Stephen Wolfram:</p> <p>https://www.youtube.com/watch?v=60P7717-XOQ&index=5&list=PLF7032F8EB1A4F9E2</p>	<p>Artificial Intelligence – Write a short essay debating the following question - Will Artificial Intelligence Replace Mankind?</p>	<p>The story of computing: This Guardian blog talks about the Computing universe and the evolution of computers:</p> <p>https://www.theguardian.com/science/audio/2015/jan/30/computing-universe-science-weekly-podcast</p>
Challenge 2	<p>Read the book: The Pattern on the Stone: The Simple Ideas That Make Computers Work by Daniel Hillis</p> <p>A short but interesting read explaining the basic concepts of the computer in everyday language.</p>	<p>The GCHQ Puzzle Book: Why not pit your wits against the people who cracked the Enigma?</p> <p>This book will have you scratching your head for hours trying to solve some challenging problems.</p>	<p>Build your own – Looking to purchase a new computer or laptop? Well, instead your challenge is to build your own! Purchase components separately to piece together in creating your own system.</p> <p>If you're not looking to buy a laptop then attempt to do a budget for all the equipment you would need if you were to do so.</p>
Challenge 3	<p>We have ordered several books to go in the library for both computing and IT; please pop in and have a look at any books that interest you.</p>	<p>Summarise your knowledge of Python on revision cards and posters</p>	<p>Intelligent Machines – Python - Develop your Python programming skills by challenging yourself to complete as many tasks on Snakify as you can. snakify.org/</p>

Design Technology

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Visit the four designers conference in London.	Visit the Natural History museum. http://www.nhm.ac.uk/	Visit the Design museum, write an essay on an exhibit that you find interesting. https://designmuseum.org
Challenge 2	Watch a video about Design and Technology on tv.data.org.uk: http://tv.data.org.uk/	Visit the Science museum; find an interactive exhibition that uses new technology. https://www.sciencemuseum.org.uk/	Listen to two TED talks on sustainable living: https://www.ted.com/talks
Challenge 3	Watch two TED talks on Design and Technology: https://www.ted.com/talks	Choose a fusion 360 tutorial by Lars Christiansen and work through the project.	Give a talk to a KS3 group about your experiences in DT and why you chose it.

Drama

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Carry out extensive research your chosen stimuli including historical and social context of the artist/author.	Create a story board 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 practitioners ideology is embedded within it.
Challenge 2	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 newspaper review.
Challenge 3	Make revision cards for a West End musical – one for each character which include:- Character profile, motivation, costume and physical approach to the role.	Create a display about your chosen musical – 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.

English

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Read the very short story 'The Vendetta' by Guy de Maupassant and make bullet point notes on the plot.	Create either a storyboard showing how you would film the story or produce a stop motion animation.	Write a Language Paper 1, Question 3 style response, explaining how Maupassant cleverly structures the story.
Challenge 2	To provide additional context for 'Romeo & Juliet', watch the animated version of 'Macbeth' (another Shakespearian tragedy) Make a Venn diagrams of similarities and differences	Read an article about the features of Shakespearian tragedy. e.g. https://penlighten.com/characteristics-of-shakespearean-tragedy	Write a paragraph or two to answer this question: What links can I make to 'Macbeth' in my 'Romeo & Juliet' exam response?
Challenge 3	Watch Mr Bruff's guide to narrative writing: https://www.youtube.com/watch?v=yLxgaxl-t4	Enter a creative writing competition: https://schoolreadinglist.co.uk/competitions-for-children/childrens-writing-competitions/ Make sure that you also show your teacher your entry!	Create a revision podcast or video on one topic in English language or English literature.

Food Technology

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Read New Scientist articles on food related topics.	Make notes on the articles.	Use the information you have learnt in your answers to extended questions.
Challenge 2	Research complex practical skills by using the internet or cookery books.	Make a range of products to a very high level e.g. complex main courses with a number of parts – filleting fish, addition of a sauce, vegetables and a mousse or pastry accompaniment.	Attend a food festival or visit Borough Market and Harrods to consider other highly technical food products that could be made.
Challenge 3	Listen to food related blogs e.g. Radio 4 – Food Programme, Kitchen Cabinet.	Make notes on the blogs.	Use the information you have learnt in your answers to extended question. See your Food Tech teacher and explain what you have learnt.

Geography

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Investigate a 'common' international migration route. List 5 pushes and 5 pulls for this migration route.	Mindmap a pencil - consider resources, production, transportation, sales, waste...	Visit Datashine and investigate two varying levels of deprivation (IMD) in Letchworth.
Challenge 2	Locate 5 climate change hot spots - map them on a world map.	Investigate sweatshops in one specific developing country. Are sweatshops all bad?	Plan and visit a National Park. Look at how tourism is managed and the physical geography in the area.
Challenge 3	Investigate the 'tragedy of the commons' and research areas that this is occurring within the oceans.	Produce a crime risk map of Letchworth - highlighting areas of high/low crime rates. Include a map and photos.	Follow the course of a river - source to mouth and take photographic evidence of the Bradshaw Model.

History

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Read a piece of historical fiction relating to a topic we have studied e.g. 'The Book Thief.	Practise writing exam style answer using the practise questions and guidance on the VLE revision page.	Read a biography or autobiography of a historical figure we have studied as part of your GCSE.
Challenge 2	Listen to Dan Snow's "History Hit" podcast https://www.historyhit.com/podcasts/ There are hundreds to choose from!	Create a detailed timeline for each historical period we have studied including a minimum of 25 events.	Write a "how to guide" for one type of exam question showing how to write the perfect answer.
Challenge 3	Watch the film "Hitler: The Rise of Evil" – available on YouTube at: https://www.bing.com/videos/search?q=hitler+rise+of+evil+youtube&view=detail&mid=258D5190A9A3B893E543258D5190A9A3B893E543&FORM=VIRE	Design a revision resource for a key topic we have studied and share it with the rest of your class.	Create a poster advertising the benefits of GCSE History to future students. Highlight the skills they will learn and how this may help them in later life.

Maths

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Challenge yourself to complete a Corbett Maths 5 a day, see if you can do one every day as part of your revision.	Create a list of topics you struggle with and make notes, you can then watch the video from Corbett Maths to improve this topic.	Watch and attempt questions from Dara O Briain School of Hard Maths. Try to relate this to the Maths you are doing in class.
Challenge 2	Go to onmaths and attempt their online resources, the demon questions are particularly challenging: https://www.onmaths.com/	Create mind maps and posters to consolidate the maths that you have been learning; this can then be used for your revision.	Inspirational and interesting videos: https://www.youtube.com/watch?v=ffUnNaQTfZE
Challenge 3	Create a series of revision cards to help you learn formulae and rules that you will use in Maths in the exams: https://qualifications.pearson.com/content/dam/pdf/GCSE/mathematics/2015/misc/gcse-maths-formulae-sheet-a5.pdf	Try to think of some songs and mnemonics to help you learn some rules and formulae that you use in maths.	Documentary : Top 10 equations that changed the world 1080p – https://www.youtube.com/watch?v=OK-t090uvL4

French

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	<p>Watch the film: Intouchables – an excellent comedy film about a disabled man and his carer or</p> <p>Etre et avoir – a documentary set in a rural school</p>	<p>Make a video to learn a grammar point that you have learnt in class.</p>	<p>Research how, when and why France became a republic. Create a timeline to help you remember.</p>
Challenge 2	<p>Listen to the free access Podcasts at Coffeekbreak French:</p> <p>https://radiolingua.com/coffeebreakfrench/</p>	<p>Plan a week’s holiday in France and work out an itinerary.</p>	<p>Go onto Médecins sans Frontières website and listen to the presentations about their work all round the world</p> <p>http://www.msf.fr/msf</p>
Challenge 3	<p>Go online and read Le Point or Le Monde; note down 20 new items of vocab</p> <p>www.lemonde.fr www.lepoint.fr</p>	<p>Read some authentic French Haikus, then try and write one yourself</p> <p>http://www.modernhaiku.org/essays/frenchaiku.html</p>	<p>Research the possibility of working in France</p> <p>https://www.woof.fr/h https://www.goooverseas.com/gap-year/au-pair/france https://www.workaway.info/</p>

Spanish

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	<p>Try some of the Instituto de Cervantes resources:</p> <p>http://londres.cervantes.es/website/mapa_site_web_en.shtm</p>	<p>Watch the film <i>Mujeres al borde de un ataque de nervios</i> – Pedro Almodovar’s comedy including an early appearance by Antonio Banderas or <i>Todo sobre mi madre</i> A drama/ comedy from the famous Spanish director Pedro Almodovar.</p>	<p>Research the civil war and subsequent dictatorship in Spain that lasted until 1975.</p>
Challenge 2	<p>Listen to the free content at this really good podcast site:</p> <p>https://www.newsinslowspanish.com/</p>	<p>Access the content designed to help you prepare for the GCSE Spanish exam:</p> <p>https://www.bbc.com/education/subjects/z4dqxn</p>	<p>Beginner, intermediate and advanced grammar, with self- marking comprehension activities:</p> <p>https://studyspanish.com/grammar</p>
Challenge 3	<p>Use an online dictionary to find some hilarious translations of simple phrases.</p> <p>https://www.spanishdict.com/guide/spanish-sayings-with-no-english-equivalents</p>	<p>Plan and go on a visit if possible to one of the famous sites in London and do the tour with a Spanish commentary.</p>	<p>Try to beat the high score on a quizlet set for A-Level vocabulary/ expressions – especially if you are aiming for a level 9 at GCSE.</p>

PE

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	<p>Read books on sport including:</p> <ul style="list-style-type: none"> • The Sports Gene by David Epstein 2013 • Bounce by Matthew Syed 2011 • The Talent Code by Daniel Coyle 2009 	<p>Write an article for Fearnfile on a book that you have read.</p>	<p>Watch BBC One Panorama – Catch me if you can</p>
Challenge 2	<p>Visit Wimbledon Lawn Tennis Club museum or championships, Hatfield House/Hampton Court Real Tennis Courts.</p>	<p>Create a timeline of the development of tennis over the years.</p>	<p>Represent the school in any sport including House Sports. Challenge yourself to represent the County.</p>
Challenge 3	<p>Create a scrapbook of any sports person or sporting event from broadsheet newspapers.</p>	<p>Write a coaching plan for any sport.</p>	<p>Lead an activity during Sport Relief week/Children in Need or Comic relief.</p>

PRE

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	<p>Women and the Church: Read Chapter 13 of Bible Matters by Peter and Charlotte Vardy</p>	<p>Christianity: Read Chapter 2: From the Beginning of the Universe of The Puzzle of Christianity by Peter and Charlotte Vardy.</p>	<p>Islam: Watch the TedTalk on Islamophobia, What do you think when you look at me? Dalia Mogahed</p> <p>https://www.youtube.com/watch?v=wzkFoetp_M</p>
Challenge 2	<p>War and conflict: Listen to the following Ted Talk What I saw in the war by Janine di Giovanni:</p> <p>https://www.youtube.com/watch?v=k2hQL9Zr_0kk</p>	<p>Christianity: Plan a visit to the St Josephs Roman Catholic Church: Bedwell Cres, Stevenage SG1 1NJ</p>	<p>Islam: Online research – Look at the information on the Angels. Make your own notes on this.</p> <p>http://www.bbc.co.uk/guides/zqtnwxs</p>
Challenge 3	<p>GCSE: Book yourself onto one of Peter Vardy’s Candle Conferences</p> <p>https://candleconferences.com/gcse-rs/</p>	<p>Christianity: Listen to the podcast on ‘The God Particle’ – consider Is the “God particle” truly “a blow to the Christian faith,”?</p> <p>https://player.fm/series/science-scripture-salvation/does-the-god-particle-prove-the-big-bang</p>	<p>Islam: Plan a visit to the Stevenage Muslim Community Centre: Vardon Rd, Stevenage SG1 5PJ (tel: 01438 350865)</p>

Science

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	<p>Visit the Who am I? page on the Science museum website:</p> <p>http://whoami.science-museum.org.uk/whoami/findoutmore/yourgenes</p> <p>Make a spider diagram summarising the information.</p>	<p>Make your own genome bracelet:</p> <p>https://www.yourgenome.org/activities/sequence-bracelets</p>	<p>Visit the Science Museum 'Who am I?' lab in person (free to go in!) Take a selfie in the museum!</p>
Challenge 2	<p>Watch the video and create a poster showing the importance of plants:</p> <p>https://www.youtube.com/watch?v=9UvIqAVCoqY&list=PL3EED4C1D684D3ADF&index=6</p>	<p>Grow your own vegetables. How would you use your scientific knowledge to ensure your crop is as large as possible? Keep a photo diary.</p>	<p>"Photosynthesis is the single most important chemical reaction on the planet"</p> <p>Carry out research and decide if you agree or disagree with this statement. Explain why.</p>
Challenge 3	<p>Try to keep a diary of all the hydrocarbons you use in a day. Remember to take note of any plastics or fuel you use. Don't forget to check textiles you wear or sit/stand on.</p>	<p>Find out the names of some of these hydrocarbons. Can you predict anything about the formulas of the molecules from the names?</p>	<p>Imagine what the world would be like without crude oil? How would it affect our everyday lives, global warming, even the history of the world? Would we be better off with or without it?</p>