



FEARNHILL
SCHOOL

Year 9

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>Practise using the formal elements of Art. Get involved with 'The Big Draw'.</p> <p>https://thebigdraw.org/30-day-drawing-challenge</p>	<p>Record your drawing challenge in a small sketchbook and make a drawing/sketch/g/collage every day for a month. This could be anything from a quick 5-minute study to a one hour masterpiece. Show your art teacher your artwork.</p>	<p>Present your challenge as an annotated journal and share it through Fearnfile and the school's social media pages with the hashtags #thebigdraw #drawingchangeslives</p>
Challenge 2	<p>Make a collection of examples of artwork and images that you find inspiring and record them in the back of your sketchbook. Refer to them in your work.</p>	<p>Make your own sketchbook using many different kinds of paper. There are lots of tutorials online that show different ways of doing this, but the one below works well:</p> <p>https://www.craftsy.com/papercrafts/article/how-to-make-a-diysketchbook/</p>	<p>Visit the Natural History Museum at Tring and have a look at the collection of animals and insects in cases. Take a small sketchbook and make sketches as you go around.</p> <p>http://www.nhm.ac.uk/visit/tring.html</p>
Challenge 3	<p>Visit the Google Cultural Institute Art Project website. This is an ongoing project where you will be able to see every piece of art work in the world:</p> <p>https://www.google.com/culturalinstitute/beta/partner?hl=en</p>	<p>Visit the Tate Britain to give you an insight into the history of British art. Watch extracts from the series:</p> <p>https://www.tate.org.uk/contextcomment/video/meet-500-yearsbritish-art#open285623</p>	<p>Join Art Club and offer to lead a session. Encourage your peers to come along and try a new technique.</p>

Computing

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	<p>Bletchley Park</p> <p>Visit Bletchley Park and explore the world of coding and maths.</p> <p>https://www.bletchley-park.org.uk/visit-us</p>	<p>Try attempting your own code breaking challenge at:</p> <p>https://schoolcodebreaking.com/</p>	<p>Watch the film:</p> <p>https://www.imdb.com/title/tt2084970/</p>
Challenge 2	<p>Do some research into computers from 30 years ago. Ask your family what computers they had when they were at school. Do you feel you would struggle nowadays without the computers you have?</p>	<p>Intelligent Machines – Write a short essay debating the following question – Are computers more intelligent than the people who make them?</p>	<p>Raspberry Pi – Why not get yourself a credit card sized computer? There are so many projects you can complete with this tiny computer. Take a look here for inspiration:</p> <p>https://raspberrypi.org/magpi-issues/Projects_Book_v1.pdf</p>
Challenge 3	<p>Read the book: Computational Fairy Tales by Jeremy Kubica</p> <p>A romp through the principles of computational thinking, illustrating high- level computer science concepts, the motivation behind them, and their application.</p>	<p>A computer programme has been designed to play the perfect game of Countdown. Research the name of the computer programme and challenge yourself to beat it.</p>	<p>Read the book: Algorithms to Live By: The Computer Science of Human Decisions</p> <p>A fascinating exploration of how computer algorithms can be applied to our everyday lives.</p>

Design Technology

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Visit a sporting venue, find out about how and when it was made. E.g. Wembley, Emirates	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/	Design a display for the Letchworth Heritage Foundation.
Challenge 3	Find out about the new town act of 1946. How and why was Stevenage created?	Choose a fusion 360 tutorial by Lars Christiansen and work through the project.	Find out about how 3D printing has impacted on human prosthetics.

Drama

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	<p>Watch a professional drama performance – try to identify the key features of either Stanislavski and Brecht</p> <p>Create an information leaflet on Stanislavski and Brecht - compare and contrast the two approaches to theatre.</p>	<p>Watch a production of Frantic Assembly on You tube and make notes on the different techniques you can identify.</p> <p>Create a display for the drama studio about all the different Practitioners you have learnt about.</p>	<p>Write an essay that compares and contrasts Stanislavski and Brecht’s approach to theatre and conclude which you prefer and why.</p> <p>Create a piece of Theatre in the style of one of the practitioners you have studied.</p>
Challenge 2	<p>Watch one of Alan Bennett ‘Talking Head’ monologues on you tube or DVD.</p>	<p>Find a monologue from a play by heart and perform it in class.</p> <p>Write a creative monologue for an actor to perform and direct a friend in a performance of your work.</p>	<p>Give a presentation about your favourite play to your class</p> <p>Set up a creative writing group for your year group and publish your work in school.</p>
Challenge 3	<p>Read at the novel ‘War Horse’ and watch then watch the film of the same name and write a review comparing and contrasting the two.</p> <p>Watch the film a ‘The Pianist’ on DVD and write a review of the film.</p>	<p>Create a display that could be placed in reception for Novembers Remembrance day. It should be eye catching and effective enough to raise awareness of the sacrifice made by soldiers.</p> <p>Research Anne Frank and prepare a presentation for your class on her life under the German Occupation</p>	<p>Organise a fund raising event to raise money that can be donated to the Poppy Appeal.</p> <p>Prepare an assembly on the holocaust ready for holocaust memorial week.</p>

English

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	<p>Read the poem 'Directions' by Billy Collins. Write a paragraph explaining what the poem is about.</p> <p>https://www.poetseers.org/contemporary-poets/poet-laureates/billy-collins/directions/</p>	<p>Read or watch another poet (an example is below) who uses the same title, 'Directions'. Draw a Venn diagram to show similarities and differences to Collins' version.</p> <p>https://www.englishandmedia.co.uk/video-clips/ks3-poetry-plus-inua-ellams</p>	<p>Write your own poem using the title 'Directions'. Remember to share with your English teacher!</p>
Challenge 2	<p>Watch Lolo Okolosie's videos (scroll to the bottom of the page to find the others). Make bullet point notes about each one.</p> <p>https://www.englishandmedia.co.uk/video-clips/ks3-language-laboratory-newsdesk</p>	<p>Read two of Lolo Okolosie's articles and summarise her points in a bullet point list.</p> <p>https://www.theguardian.com/profile/lola-okolosie</p>	<p>Write your own opinion article about a topic that you are passionate about. Remember to share with your English teacher!</p>
Challenge 3	<p>Read the script or watch the videos of 'West Side Story' (inspired by 'Romeo and Juliet') online.</p>	<p>Make a Venn diagram of the similarities and differences between the two texts.</p>	<p>Write your own script for a play about two warring families. Remember to share with your English teacher!</p>

Food Technology

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Research current food trends by using Good Food magazines or the internet.	Visit Waitrose or a food market to see the latest trends.	Create a product using the latest trends.
Challenge 2	Practise KS3 practical skills and research one KS4 practical skill e.g., enriched pastry or dough, separating egg whites for meringue making.	Make a dish incorporating KS3 and KS4 skills.	Create a product incorporating KS3 skills, KS4 skills and a latest food trend.
Challenge 3	Research how plastic as a packaging material for some foods are affecting the planet.	Use the internet - research the alternatives to plastic for food packaging.	Write down 10 food products in your kitchen which are packaged in plastic. Use your information to explain alternative packaging that can be used with reasoning why.

Geography

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Investigate two population management strategies. One to reduce and one to increase fertility rate.	Produce a short presentation on what the holocene is and how we can stop the natural environment destruction.	Investigate a national park of your choice and investigate how it is being sustainable.
Challenge 2	Learn the names of all the countries in the world.	Visit the USGS website and highlight the 10 largest earthquakes in Asia and Europe over the last 10 years.	Investigate Eco-Tourism in Costa Rica. Include positives and negatives of the project.
Challenge 3	Investigate one shield volcano and one composite volcano.	Map the 13 sediment cells around the UK on a blank map.	Map the Major National Parks around the world - try and find at least 20 in each continent.

History

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Visit the Imperial War Museum and make a scrapbook of the information you learn there about life for soldiers and civilians during WW1/WW2.	Design a propaganda poster promoting life on the Home Front to be used by the British government during WW2.	Write an essay in response to the following: “War always does more harm than good” Do you agree?
Challenge 2	Read “When Hitler stole pink rabbit” by Judith Kerr.	Write a poem based on life in the trenches during WW1. (You could use poems we have read such as ‘Dulce et Decorum Est’ by Wilfred Owen for inspiration).	Create and deliver class presentation on the importance of commemorating Holocaust Memorial Day.
Challenge 3	Watch the film “Warhorse” (2011)	Create a revision factsheet on a key historical topic we have studied.	Research the lives and stories of local soldiers in WW1 at: https://www.everyoneremembered.org/ See if you can find any of your ancestors on there.

Maths

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	<p>Bletchley Park</p> <p>Visit Blechley Park and explore the world of coding and maths</p> <p>https://www.bletchleypark.org.uk/visit-us</p>	<p>Try attempting your own code breaking challenge at:</p> <p>https://schoolcodebreaking.com/</p>	<p>Watch the film:</p> <p>https://www.imdb.com/title/tt2084970/</p>
Challenge 2	<p>Look up the world record for the largest number of decimal places someone has remembered Pi to. What type of number is Pi?</p>	<p>How many decimal places can you remember pi to? When and where do we use Pi?</p>	<p>Develop your understanding of irrational numbers and prove that root 2 is irrational</p> <p>https://www.khanacademy.org/math/algebra/rational-and-irrational-numbers/proofs-concerning-irrational-numbers/v/proof-that-square-root-of-2-is-irrational</p>
Challenge 3	<p>Use the PIXL maths app (ask your teacher for your login if you do not have it) and try some of the questions to see where your strengths and weaknesses are in mathematics.</p>	<p>Start to create your own videos like the ones in Corbett Maths so when you get to your GCSE you can use these to remind yourself of topics you have already covered.</p>	<p>Research Archimedes and contributions to the world of Mathematics.</p>

French

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Change the settings on your netflix account (More, Account, My Profile, Language) to include French and watch some of your favourite shows in French.	Research a famous French singer or band and make a PowerPoint presentation for the class.	Write a diary about a real or imagined trip to a French-speaking country and include pictures.
Challenge 2	Online stories with audio to listen as well: http://www.childtopia.com/index.php?module=videos&func=cuentos&newlang=fra	Plan a long weekend in Paris. What would you visit and why?	Searchable MP3 clips by topic, level and language: http://www.audio-lingua.eu/?lang=en
Challenge 3	Read a news article from: http://www.1jour1actu.com/ Pick out some new vocabulary and see if you can identify any grammar points you have learnt about in class.	and access the French vocabulary list 'AQA 2016 onwards GCSE French vocabulary'	Research the geography and the political makeup of France. What are the departments? What are the different political parties?

Spanish

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Change the settings on your netflix account (More, Account, My Profile, Language) to include Spanish and watch some of your favourite shows in Spanish.	Research a famous Spanish/ Latin American singer or band and make a PowerPoint presentation for the class. Try, Shakira, Enrique Iglesias, Alejandro Sanz, Gloria Estefan.	Write a diary about a real or imagined trip to a Spanish- speaking country and include pictures.
Challenge 2	Read some online stories with audio to listen as well: http://www.childtopia.com/index.php?module=videos&func=cuentos&newlang=fra	Plan a long weekend in Madrid or Barcelona. What would you visit and why?	Searchable MP3 clips by topic, level and language: http://www.audio-lingua.eu/?lang=en
Challenge 3	Read an article from: https://elpais.com/ Pick out some new vocabulary and see if you can identify any grammar points you have learnt about in class.	Register at www.memrise.com and access the Spanish vocabulary list 'AQA 2016 onwards GCSE Spanish vocabulary'	Research the geography and the political makeup of Spain. What are the provinces? What are the different political parties?

Music

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Listen to three songs by a contemporary singer-songwriter and write a review of the songs.	Learn to sing and play a song of your choice, either on piano or guitar.	Write a song for at least two musicians, and learn to perform it with one or more friends.
Challenge 2	Complete an online grade 3 music theory test at least twice, improving your score. https://gb.abrsm.org/en/theory2018/music-theory-2018-quiz/	Learn to play a grade 2 piano piece in your own time.	Learn to play a piano piece at a grade 3 standard.
Challenge 3	Listen to three or more pieces of music from the same film composer (such as John Williams or Danny Elfman). Write a short review of what you have seen (with reference to the music and the film)	Learn to play a famous Leitmotif on the piano (such as the Harry Potter theme, or Darth Vader's theme).	Play an arrangement of a film theme in four parts with three friends.

PE

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	Read a sports autobiography of your choice.	Write a review of the autobiography highlighting areas that interested you the most.	Create a poster or flyer talking about an issue in sport.
Challenge 2	Watch any sporting documentary.	Create a scrapbook of any sportsperson or sporting event.	Lead a group of students in a sporting competition.
Challenge 3	Visit a local sports club facility.	Develop your fitness through trying out a new sport or doing a Park Run.	Write a journal of sports you have participated in over the past two weeks.

PRE

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	<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=k2hQL9Zr0kk</p>	<p>Christianity: Watch 'A.J. Jacobs: My year of living biblically'</p> <p>https://www.youtube.com/watch?v=B5MkpzM AOZM</p> <p>Present the key ideas in a storyboard or mind-map</p>	<p>Islam: Read the BBC Bitesize page on Good and Evil</p> <p>http://www.bbc.co.uk/schools/gcsebitesize/rs/god/isgoodandevilrev2.shtml</p>
Challenge 2	<p>Euthanasia: Watch the Ted Talk, Beyond Life: Managing Your Right to Die by Dr. Allan Saxe</p> <p>https://www.youtube.com/watch?v=B7ehf6CmG4Y</p>	<p>Christianity: Online research – Look at the information on Why didn't Christianity die out in the 1st Century?</p> <p>http://www.bbc.co.uk/guides/zttpn39</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>Creation: Online research on Genesis - Read and make your own notes on the different views.</p> <p>http://www.faradayschools.com/re-topics/re-year-10-</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: Listen to the following podcast on the History of Islam</p> <p>https://player.fm/series/becoming-a-better-muslim-islamic-self-improvement-quran-sunnah</p>

Science

	Figuring It Out (2 reward points each)	Freewheeling (5 reward points each)	Flying (10 reward points each)
Challenge 1	When you are in car or on the bus identify the forces in different phases (e.g. speeding up, steady speed and slowing down) and when the forces are balanced.	<p>Open the simulation https://phet.colorado.edu/sims/html/forces-and-motion-basics/latest/forces-and-motion-basics_en.html</p> <p>Set up the tug of war with 5 different set ups of people.</p> <p>Tick all the boxes in the top right hand corner; predict if it's balanced/unbalanced and which team will win; then, press go!</p>	<p>Find out about the braking systems of the bloodhound car and identify which force they increase and explain how they slow the car down:</p> <p>http://www.bloodhoundssc.com/project/car/braking-systems</p>
Challenge 2	Know your particle model diagram of a solid, liquid and a gas and when watching a team sports game. Imagine the players are particles and write down when the player are acting as a solid, liquid and a gas.	<p>In the kitchen when you or your parent/guardian is cooking consider what states of matter you can see different substances in. Make a list of any changes of state you see.</p> <p>Linking to separating mixtures, what tools can you see for separating ingredients?</p>	Place an inflated balloon in the freezer and explain what has happened in terms of energy and the particle model.
Challenge 3	Create a model of a specialised cell and write a report outlining its shape and structure.	Write and present a monologue taking on the role of the specialised cell and explaining its role and purpose.	Create a short video outlining why specialised cells are important for animals.