



THE NORTON  
KNATCHBULL  
SCHOOL

**KS3 Excel & Extend  
Booklet**

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# What is the purpose of this booklet?

Our students' experience in school is built on four key pillars that make up the 'The Knatchbull Baccalaureate' (*Knatch. Bacc.*):

## Knatch Bacc

### Academic

*The timetable, the subjects, the lessons.*

### Extra-Curricular

*Enrichment, Sport, Music, The Arts.*

### Community

*Leadership, contribution – making a difference.*

### Excel & Extend

*Stretch and challenge.*

Students at NKS are encouraged to explore their interests in a variety of fields. As their aspirations develop, they are supported to reach their chosen destinations through a varied programme of support. Through this booklet, students can access a range of resources recommended by subject specialists to enable them to develop their understanding and interests beyond the curriculum.

# Art

*Art at NKS is structured to develop students as imaginative, inquisitive, persistent, collaborative, disciplined learners. Students learn about the theory and practice of art through being introduced to contemporary artists and are encouraged to work using a variety of processes, including drawing, painting, 3-D design and ceramics, printmaking and photography.*

## What resources can I access to excel in this subject?

### Digital resources:

- [Tate Kids](#)
- [KS2 Art and Design - BBC Bitesize](#)
- [GCSE Art and Design - Edexcel - BBC Bitesize](#)
- [Easy Stop Motion Animation for Beginners - Parents Toolkit - BBC Bitesize](#)
- [Art UK | Home](#)
- [Young V&A](#)
- [#Architecturefromhome | Learning for Children](#)

### Recommended Days Out:

- [Made in Ashford shop presented by Craftship Enterprise CIC](#)
- [Arts and Crafts](#)
- [Victoria Park - The website of the Friends of Victoria Park](#)
- [Home | Singleton Environment Centre](#)
- [The Ashford Mural Trail | Love Ashford](#)
- [Activities for young people - Kent County Council](#)
- [The Beaney House of Art & Knowledge, Canterbury](#)
- [Get Creative at Home - Creative Folkestone](#)

### Optional challenges to complete:

- [Young Artists' Summer Show | Royal Academy Children's Art Competitions in the UK 2025 | MoMa UK](#)
- [Inktober John Downton Awards - Kent County Council Rotary Young Artist - Rotary in Great Britain and Ireland](#)

# Biology

*Biology answers questions. Biology helps us understand the world around us, make informed decisions and to fully comprehend the background to current events such as human health, climate change and the energy crisis. However the world changes, Biology is vital in providing new vaccines, pharmaceuticals and materials.*

## What resources can I access to excel in this subject?

### Digital resources:

- [CENTURY | Online Learning | English, Maths and Science](#)
- [MASSOLIT – Chemistry](#)
- [BBC Bitesize](#)
- [Cognito](#)

### Podcasts:

- [In Our Time: Science](#)
- [Podcasts for GCSE revision from BBC Bitesize and BBC Sounds - BBC Bitesize](#)
- [Biology GCSE Podcasts by Seneca](#)
- [25 Best Biology Podcasts You Must Follow in 2025](#)

### Books:

- The song of the Dodo
- The immortal life of Henrietta Lacks
- Sapiens
- The sixth extinction
- Behave
- Why we sleep

### Magazines:

- New Scientist
- BBC Science Focus
- Nature
- National Geographic

### Recommended Days Out:

- Biology is everywhere and is an indoor or an outdoor subject! Great British bird watch, Port Lympne, Kew Gardens, The Kentish coast, The Francis Crick institute-to name a few.

# Chemistry

*Chemistry answers questions. Chemistry helps us understand the world around us, make informed decisions and to fully comprehend the background to current events such as human health, climate change and the energy crisis. However the world changes, Chemistry is vital in providing new vaccines, pharmaceuticals and materials.*

## What resources can I access to excel in this subject?

### Digital resources:

- [CENTURY | Online Learning | English, Maths and Science](#)
- [MASSOLIT – Chemistry](#)
- [BBC Bitesize](#)
- [Cognito](#)

### Podcasts:

- [The Episodic Table of Elements](#)
- [Chemistry for Your Life](#)
- [In Our Time: Science](#)

### Books:

- The disappearing spoon...and other true tales from the Periodic Table
- What is Chemistry?
- The Usborne Illustrated Dictionary of Chemistry
- The Manga guide to Chemistry
- Horrible Science: Chemical Chaos
- Napoleon's Buttons: How 17 Molecules Changed History

### Magazines:

- New Scientist
- BBC Science Focus
- Nature
- National Geographic

### Recommended Days Out:

- National History Museum
- Science Museum
- Herstmonceux Observatory

# Computer Science

*Developing Computer Science skills is essential to be a fully-rounded “digital citizen”. Every aspect of life, employment, social life can be enhanced by understanding and making safe use of IT and Computing*

**What resources can I access to excel in this subject?**

## Digital resources:

- [code.org](https://code.org) – mini-courses and enrichment for programming
- [Codecademy.com](https://codecademy.com) – language-focused programming courses
- [CS Unplugged](https://www.csunplugged.org) – Have fun with Computing concepts and activities, all without using any electronic devices

## Podcasts:

- [Revise CS Computing](#) – Seneca – short series of podcasts about Computing topics
- [Spark – Nora Young](#) – Informative but fun podcast about being a 21<sup>st</sup> century citizen with technology

## Books:

- How Super Cool Tech Works – DK
  - ISBN: 9780241426388
- Digital Life Skills for Teens
  - ISBN: 9781915833358

## Magazines:

- How It Works – every 4 weeks

## Recommended Days Out:

- Bletchley Park and National Computing Museum
- Science Museum, Kensington, London

# Design & Technology

## What resources can I access to excel in this subject?

- DT will set 'Excel and Extend' optional extra tasks on Satchel:One at different intervals during the year. Keep an eye out for these tasks and join in with the ones that interest you!

### Digital resources:

#### Podcasts:

- **Design Matters** - This podcast features conversations with designers, artists, and creatives about design and innovation.
- **99% Invisible** - A fascinating look into design, architecture, and everyday objects.
- **The Creative Innovation Podcast** - This podcast explores innovation in design, tech, and engineering, offering interviews with creative thinkers and industry leaders.
- **School of Design** - This podcast explores design thinking, ideation, and creative problem-solving.

### Recommended Days Out:

- **Factory Tours** - Visiting design or technology-focused factories can give D&T students an inside look at manufacturing, product development, and the application of design in industry.
- **The Design Museum, London** - It's a hub of design excellence, showcasing the history of design, technology, and innovation.
- **Science Museum, London** - The Science Museum is full of interactive exhibits that highlight technological advancements and the history of science and innovation.
- **The Royal Institute of British Architects (RIBA)** - Architecture is a significant part of D&T, and RIBA provides exhibitions and events that explore architectural design, theory, and history.
- **Bristol's Brunel's SS Great Britain** - A magnificent example of Victorian engineering, the SS Great Britain, designed by Isambard Kingdom Brunel, is a must-see for D&T students.
- **Cadbury World, Birmingham** - A fun yet educational day out, Cadbury World gives students insight into the packaging and product design process of one of the world's most famous brands.



# Drama

*Excelling in Drama can open up a world of possibilities for you, from acting, directing or designing to journalism, presenting, games development and events managing to name just a few. Being confident as a communicator will benefit you in all walks of life.*

## What resources can I access to excel in this subject?

### Digital resources:

- [Welcome to the National Theatre](#) - for information about shows and amazing backstage tours of the theatres.
- [Teacher resources | National Theatre](#) - for information about plays and how productions are created.
- [Teaching resources | Learn | Shakespeare's Globe](#) - Find out about how The Globe theatre approaches Shakespeare on stage.
- [Youth Theatre – Gulbenkian](#) - Find out about how to get involved in the youth theatre open for young people aged 13-18
- [TECH31 – Gulbenkian](#) - If technical theatre is your thing, why not get involved with the Gulbenkian theatre, Canterbury's technical theatre courses.

### Books :

- There is a wide range of books about theatre and theatre practitioners in the library and you can also find a wide range of plays both classical and modern.

### Recommended Days Out:

- Marlowe Theatre
- Gulbenkian Theatre at the University of Kent
- The Malthouse Canterbury.
- London has one of the highest concentration of theatres in the world.
- [British Theatre Guide](#) This gives a comprehensive guide to what is on in the theatre across the country.

# English

*Studying English Literature is an exciting way to explore amazing stories, powerful poetry, and fascinating ideas from all over the world! It can also open doors to lots of interesting university courses and careers. You could go on to study English, Creative Writing, Journalism, Media, Law, Theatre, Marketing, or even Publishing! To do well in English Literature, dive into books from different genres and time periods—there's something for everyone. Practice analysing characters and themes, write your own stories or poems, and join fun activities like book clubs or creative writing groups. You can also use videos, podcasts, and online articles to make learning even more exciting. With English Literature, you'll develop skills that will help you shine in whatever you choose to do!*

## What resources can I access to excel in this subject?

### Digital resources:

- [KS3 English - BBC Bitesize](#)
- [MASSOLIT – English Literature](#)
- [CENTURY | Online Learning | English, Maths and Science](#)
- [BookTrust: Getting children reading | BookTrust](#)
- [Free KS3 English teaching resources | Page 1 of 5 | Oak National Academy](#)

### Podcasts:

- [The Week Junior Show - The Week Junior - Omny.fm](#)
- [Podcasts - GCSE English Literature - BBC Bitesize](#)

### Books:

- KS3 English All-in-One Complete Revision and Practice by – Collins
- [100 books to read before you leave secondary school Blackwell's](#)

### Recommended Days Out:

- The Globe
- Theatre productions
- Library
- Local bookshops
- The Hunterian Museum
- Imperial War Museum
- Churchill's War Rooms
- Sherlock Holmes Museum

# French

*Excelling in French can open doors to amazing opportunities! French is spoken in over 29 countries, letting you travel confidently, connect with new people, and experience different cultures worldwide. It boosts your CV for careers in fashion, gaming, hospitality, international business, or diplomacy. Speaking French also gives you an advantage when studying abroad in places like France or Canada, and helps you stand out in today's global job market.*

## What resources can I access to excel in this subject?

### Digital resources:

- Duolingo
- Quizlet (App/Website): Flashcards and games for practicing vocabulary. Search for "French KS3" to find relevant sets.
- FrenchGames.net
- LyricsTraining : Listen to French songs, complete lyrics, and improve your listening skills in a fun way.
- Netflix/Amazon Prime (with French audio/subtitles): Watch French films or shows to improve listening skills and explore French culture.

### Podcasts:

- Coffee Break French: Short, engaging lessons for learners of all levels.
- Learn French by Podcast: Explores French grammar, vocabulary, and idioms.

### Books:

- Le Petit Nicolas (by Goscinny and Sempé) - They're popular short stories about the life of a schoolboy.
- Short Stories in French for Beginners by Olly Richards.
- Journal D'un Dégonflé by Jeff Kinney (Diary of a Wimpy Kid but in French)
- Les Aventures de Tintin by Hergé (comic book)
- Any of the "Mille ans de contes" books - they're a collection of stories with different themes. They allows children to choose a story based on criteria such as age, places, characters or reading time - great for beginners too.

### Recommended Days Out:

- French Film Screenings at the BFI (London): Regular screenings of French movies with English subtitles.
- The Institut Français (London): Attend workshops, movie nights, or browse the French library.
- Le Pain Quotidien (in London): Practice ordering food in French at this French-inspired café.
- Canterbury Cathedral: Explore links between the UK and France.
- Dover Castle: Learn about England's historical links to France.
- Eurotunnel or Ferry to Calais: A day trip to France (e.g., Lille or Boulogne-sur-Mer) offers an opportunity to practice speaking French in real-life settings.

# Geography

*Students you need to be aware that Geography is ‘around you all of the time from when you get up in the morning to when you go to bed at night’. It is not all about what you will be taught in the classroom or the information from the textbook you will be given. Those who have a real passion to learn about the world in which they live need to experience it for themselves and therefore any life experiences can be useful in Geography even your summer holiday travels! The following suggestions will enhance your ability to ‘Think like a Geographer’*

## What resources can I access to excel in this subject?

### Digital resources/podcasts/books:

- [KS3 Geography - BBC Bitesize](#)
- [Free Key Stage 3 Geography Revision | Seneca \(senecalearning.com\)](#)
- [KS3 \(geobytes.org.uk\)](#)
- [KS3 Geography - 50 Enjoyable Quizzes for Years 7, 8 and 9 \(educationquizzes.com\)](#)
- [KS3 geography skills - including graphs and maps \(educationquizzes.com\)](#)

### Blogs:

- [Newgeography.com | Economic, demographic, and political commentary about places](#)
- [GEOLOUNGE | Geography 250 \(richmond.edu\)](#)

### Recommended Days Out:

- The coastline of Kent – Dover, Folkestone, Camber, Margate.
- Samphire Ho - Dover
- Rye – East Sussex
- Canterbury
- Natural History Museum – London
- Science Museum – London
- Wye Downs

# History

*Studying History can help lead to a wide range of university courses and careers, as it provides a strong foundation in critical thinking, research, and analytical skills. Future paths include History, Law, International Relations, Journalism, Politics, Teaching, Archaeology, English, Economics, Sociology, Business. Students can excel in school history by reading widely, developing critical thinking and writing skills, participating in extracurricular activities, and using technology to enhance learning. By doing so, they can gain a deeper understanding of history and develop skills that can be applied in a variety of contexts.*

## What resources can I access to excel in this subject?

### Digital resources:

- [BBC Bitesize](#)
- [Royal Holloway University Documentaries](#)

### Podcasts:

- Revise KS3 (Seneca Learning)

### Books:

- Horrible Histories Series (Terry Deary)

### Magazines:

- BBC History Magazine

### Recommended Days Out:

- Canterbury Cathedral
- Deal and Walmer Castles
- Penshurst Place
- Battle Abbey and Battlefield Site
- Kent Battle of Britain Museum
- Dover Castle

# Mathematics

*We aim to equip our students with excellent mathematical skills which include problem solving and resilience alongside mathematical processes by fostering a love of mathematics. We hope for all students to have an appreciation of mathematics.*

## What resources can I access to excel in this subject?

- Y7-Y8 UKMT Junior Challenge papers
- Y9 UKMT Intermediate Challenge paper

### Digital resources:

- [nrich.maths.org](http://nrich.maths.org)
- [Parallel.org.uk](http://Parallel.org.uk)

### Podcasts:

- Uncharted with Hannah Fry [BBC Sounds](#)
- Stand Up Maths – YouTube

### Books:

- Fermat's Last Theorem by Simon Singh
- The Code Book by Simon Singh
- The Maths That Made Us by Michael Brooks
- A Dictionary of Mathematics - Roy Hollands
- Maths 1001 - Richard Elves
- Rapid Maths Tips & Tricks - Edward H Julius
- The Book of Numbers - Tim Glynne – Jones
- Mindbenders & Brainteasers – Rob Eastaway & David Wells
- Taming the Infinite – Alex Bellos
- How Big is Infinity – Tony Crilly
- More Murderous Maths – Kjartan Poskitt
- Hoard of Mathematical Treasures – Ian Stewart
- The Man Who Only Loved Numbers – Paul Hoffman
- 50 Mathematical Ideas – Tony Crilly

### Recommended Days Out:

- Bletchley Park

# Music

*Excelling in music can open-up many opportunities and exciting career options. Here are a few examples of this huge industry: performer in a band, session musician, music director in a theatre, composing for media and film, arts management and promotion etc. Through engaging with music, you will gain confidence, friends and a life-long skill that is personally rewarding and can help you connect with others.*

## What resources can I access to excel in this subject?

### Digital resources:

- DAWs and Notational apps used to compose music. There are free versions:
  - [Musescore is a free notational app for composition.](#)
  - [Bandlab is a free DAW app for music composition](#)
- Music Charity offering free courses, bursaries for instrument lessons, summer schools and more. [Kent Music](#)

### Podcasts:

- [Rick Beato - YouTube](#)
- <https://www.youtube.com/@DavidBennettPiano>
- [David Bruce Composer - YouTube](#)

### Books:

- For most instruments, music scores are available to borrow or copy from the music department. There is also range of reference books about music that can be borrowed from the department collection.

### Recommended Days Out:

- [School Of Rock Summer Camps](#)
- [Ochestra One events run by Kent Music in school holidays. No experience necessary](#)
- [The Marlowe Theatre](#)
- [Broadstairs Folk Week](#)
- [Canterbury Cathedral](#)

# Personal Development

*Excelling in Personal Development can open numerous doors for you. It equips you with essential life skills such as emotional intelligence, resilience, and effective communication, which are invaluable in both personal and professional settings. By mastering these areas, you can build stronger relationships, make informed decisions, and navigate challenges with confidence. Additionally, these skills are highly sought after by employers, enhancing your career prospects and opportunities for leadership roles. Ultimately, excelling in Personal Development can lead to a more fulfilling, balanced, and successful life.*

## What resources can I access to excel in this subject?

### Podcasts:

- **The School of Greatness** by Lewis Howes: Features interviews with successful individuals sharing their personal development journeys.
- **The Minimalists Podcast**: Focuses on simplifying life and improving mental wellbeing.

### Books:

- **"Atomic Habits"** by James Clear: Offers practical advice on building good habits and breaking bad ones.
- **"Mindset: The New Psychology of Success"** by Carol S. Dweck: Explores the power of a growth mindset.

### Magazines:

- **Success Magazine**: Focuses on personal and professional growth, featuring articles and interviews with successful people.

### Recommended Days Out:

- **Museums and Cultural Events**: Engaging with art and culture can provide new perspectives and inspire personal growth.



# Physical Education (core)

*Through excelling in PE pupils will have the opportunity to represent our school in sporting competitions against other schools in Kent across a range of Sports. Pupils will also extend their skill set and knowledge of tactics and strategies.*

## What resources can I access to excel in this subject?

### Digital resources:

- BBC / Sky Sports.
- Sporting Podcasts

### Books/Magazines:

- Sporting Books on technique, developing skills & tactics.
- Sporting Magazines on technique, developing skills & tactics.

### Recommended Days Out:

- Cycling, walking, jogging to improve Fitness.
- Participating in regular exercise to improve health.
- Become a member at a gym.
- Participate in Sport with your friends and look to join teams to improve social health & well-being.
- Watch sporting events live of your favorite sports.

# Physics

*Physics unlocks the universe's secrets, from the smallest particles to the largest galaxies. It equips you with critical thinking and problem-solving skills, essential in any field. Studying physics opens doors to diverse careers in technology, medicine, finance, and more. It's a challenging yet rewarding path for curious minds seeking to understand the world around them.*

**What resources can I access to excel in this subject?**

## **Digital resources:**

- [Khan Academy](#): Free courses on almost all subjects (especially science) for all ages. Focus on Middle or High School.
- [PhET](#): Dozens of free Physics simulations that you can do online yourself with guides and questions.
- [MinutePhysics](#): YouTube Channel focussing on quick animated guides for physics.
- [Veritasium](#): Great channel exploring the big world events in science.

## **Podcasts:**

- [Science Vs | Gimlet](#)
- [Science Friday](#)
- [BBC Sounds - The Infinite Monkey Cage](#)

## **Books (indicate if these can be found in the library):**

- "Thing Explainer: Complicated Stuff in Simple Words" by Randall Munroe
- "What If?" by Randall Munroe
- "They Joy of Physics" by Jim Al-Khalili

## **Magazines:**

- Scientific American
- The New Scientist

## **Recommended Days Out:**

- The Royal Observatory, Greenwich (And Maritime Museum)
- The Experimentarium, Copenhagen

# Religion, Philosophy & Ethics

*The study of Religion, Philosophy & Ethics provides insights into the beliefs, practices and values of different cultures around the world. This fosters greater appreciation and respect for cultural diversity, can help reduce prejudice and discrimination and promote social cohesion.*

*It is also a way to explore existential and ethical questions and understand how religion has, and still is, playing a crucial role in shaping historical events and societal developments.*

*Overall, it contributes to a well-rounded education by fostering intellectual curiosity, empathy and a deeper understanding of the world and its diverse inhabitants.*

## What resources can I access to excel in this subject?

### Digital resources:

- [KS3 Religious Studies - BBC Bitesize](#)
- [Religious Education lessons for Key Stage 3 students - Oak National Academy \(thenational.academy\)](#)

### Podcasts:

- Seneca Religious Studies KS3

### Books:

- World religion books – Anne Frank's diary – The Book Thief (M Zusak)
- The Boy in the striped Pyjamas (J Boyne)
- Biographies on Martin Luther King – Nelson Mandela – Ghandi
- The God delusion (R Dawkins)
- Magazines: RE Today (Subscription required)

### Recommended Days Out:

- Places of worship (churches, mosques, mandirs, viharas, synagogues, gurdwaras - Canterbury Cathedral, St Paul in London...)
- British Museum (London).
- Victoria and Albert Museum (London).
- Pilgrimage sites.
- Attending local community events (Diwali, Eid, Christmas, Hanukkah, Wesak celebrations)

# Spanish

***Imagine being able to reach over 500 million people in the world!  
Becoming an outstanding Hispanist – learner of Spanish - opens up a  
plethora of education and job opportunities both in the UK and  
abroad. Learn Spanish and truly make the world ‘your oyster’!***

## How can I extend my learning in this subject?

### Year 7

- Produce a set of cards in Spanish showing endangered animals from the Hispanic world.
- Design your ideal timetable for a school in Guatemala. Explain your choices!
- Create a pictogram with Las Meninas as an inspiration, to describe the art of Diego Velázquez.
- Design a brochure for a Spanish festival to convince your peers to attend it.

### Year 8

- Imagine last year you won the lottery... You decided to take a trip with your family / best friend to a city of your choice in the Hispanic world. Design and write an entry for a blog explaining everything you did.
- Design a Christmas card (addressed to a member of your family / your best friend).
- Investigate about the most famous dish of any Spanish-speaking country. Follow the recipe and cook the dish with the help of an adult at home!
- Write a problem for an Agony Aunt section on a website.

### Year 9

- Research the influences of rap in Spain (hip-hop) and Latin-American (less urban) and write your own rap song in Spanish.
- Choose fictional character (i.e.: Dracula) and pretend they have an every-day job. Design a comic book depicting their funny adventures in Spanish.
- Use the vocabulary learnt in class to create your own dance / fitness routine, record it and get everyone moving!
- Investigate Peruvian folk tales & write and illustrate a children’s tale based on the results of your research.
- Create a virtual escape room (on PPT) to revise the grammar and vocabulary from the whole year.