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Year 11 Preparing for the Next Phase

Lancashire County Council

Lancashire Secondary Consultant Team

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This booklet gives some advice on how students in Year 11 can prepare for the next phase in their education or employment during the school closures as a result of the Corona Virus.

The booklet is split into three sections relating to mathematics, English and science.

Mathematics

Preparing for…

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English

Preparing for…

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Science

Preparing for…

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Mathematics

Continued study of mathematics beyond Y11 can include any of the following courses:

- Entry Level Certificate
- GCSE
- Functional Skills
- Core Mathematics
- T Levels
- AS/A Level

For more information on how to prepare for your chosen pathway, please select your next step qualification.

No matter what your future pathway holds, you will need to keep your brain active, until you start your new course. The following links may be of interest:

From Nrich

- Short Problems: https://nrich.maths.org/11993
- Games: https://nrich.maths.org/9465
- Activities/ challenges: https://wild.maths.org/

From BBC Puzzle for Today:
https://www.bbc.co.uk/programmes/articles/w9qwf7cQ01vBHCSwHK7mp/the-today-quiz

Games like chess, Sudoku, Connect 4, Noughts and crosses etc. if you and your opponent are equally matched or your opponent is better than you.

Entry Level Certificate

- A gateway qualification to GCSE mathematics
- Can be studied at Entry level 1, 2 or 3.

How to prepare for GCSE at college:

This qualification covers all the basics in mathematics ready to progress towards GCSE.

Content includes:

- basic number skills such as addition, subtraction, multiplication and division
- time
- measures
- fractions, decimals percentages.

Any work your teachers have sent home will help prepare for this qualification.

Do 20 – 30 minutes of maths every day to keep skills fresh.

Practice answering questions and using written methods of calculation.

Each week, test yourself on key facts like multiplication tables, conversions between mm and cm etc.

If you want to take it further, have a look at the specifications below. You can also get some practice questions through links from these webpages.

AQA Entry Level Certificate Specification

OCR Entry Level Certificate Specification

Pearson Edexcel Entry Level Certificate Specification

GCSE Mathematics

- if you do not have a GCSE in mathematics and want/ need one
- if you have a GCSE but need a grade 4 or higher

How to prepare for GCSE at college

Use the revision resources provided by your school to keep your maths skills 'fresh'.

Do a little each day- say 20 to 30 minutes?

Use online resources your teachers have suggested or The Khan Academy, to get explanations of things you don't understand.

Make sure you do practice questions, and that you do try to do some of the things you aren't so good at.

Taking it a step further

Although content and skills are the same for all the exam boards, the way they arrange the examination papers and ask the questions can be a little different.

If you know what exam board you will be using at college, download their GCSE specification from the internet and use it as a checklist for skills and content you need.

AQA GCSE Specification

OCR GCSE Specification

Pearson Edexcel GCSE Specification

Functional Skills

- You may take a functional skills qualification in mathematics if beginning an apprenticeship.
- You can study as an entry-level qualification or as a level 1 or level 2 qualification.

How to prepare for Functional Skills at college or through work:

Use the revision resources provided by your school to keep all your maths skills 'fresh'.

Functional skills use all the basic maths skills, but in real life contexts.

Practice the maths skills you need for your apprenticeship.

Taking it a step further

If you know which exam board your course/ apprenticeship uses, download the specification and use it as a checklist of knowledge and skills,

AQA Functional Skills Maths Specification

OCR Functional Skills Maths Specification

Pearson Edexcel Functional Skills Maths Specification

Core Mathematics

- if you have a mathematics GCSE at grade 4 plus then you may study this Level 3 maths qualifications, usually taken alongside A levels or other qualifications, to help develop mathematical skills and thinking after GCSEs. Particularly useful for preparation for the quantitative skills needed for many degree courses, particularly subjects such as psychology, business-related courses, sports and social sciences, and natural science courses that do not require AS/A Mathematics.

All Core Maths qualifications include:

- interpreting solutions in the context of the problem
- understanding sources of error and bias when problem-solving
- working with data
- understanding risk and probability
- understanding variation in statistics
- using exponential functions to model growth and decay.

Most Core Maths qualifications also include:

- percentage change
- interpretation of graphs
- financial maths
- using standard units
- Fermi estimation
- the Normal distribution
- correlation, knowing it does not imply causation
- making and evaluating assumptions when modelling or problem solving

Taking it a little further

You can find out more information about the qualification you will take by downloading the appropriate specification.

- AQA Level 3 Certificate Mathematical Studies
- City & Guilds Level 3 Certificate in Using and Applying Mathematics
- NCFE Level 3 Certificate in Mathematics for Everyday Life
- Pearson Edexcel Level 3 Certificate in Mathematics in Context
- OCR Level 3 Certificate in Core Maths A (MEI)
- OCR Level 3 Certificate in Core Maths B (MEI)

T levels

- A new range of qualifications that give you specialist technical knowledge and skills and are recognised as leading to specific job roles.
- They are a vocational equivalent to studying A level and are a 2-year course.
- You need grade 4 or better at maths GCSE to follow a T level pathway.
- There is a mathematics element as part of some pathways, depending on target job.

The mathematical content to the three elements above will be taught and assessed in the occupational context. Ten General Mathematical Competences (GMCs) have been specified to cover the mathematics required for the full range of courses. These are listed below. From these, each T level will include the GMCs relevant to that industry.

- Measuring with precision
- Estimating, calculating and error spotting
- Working with proportion
- Using rules and formulae
- Processing data
- Understanding data and risk
- Interpreting and representing with mathematical diagrams
- Communicating using mathematics
- Costing a project
- Optimising work processes.

The mathematical components are assessed as part of the general assessment not as a separate examination.

How to prepare for T levels

Keep your maths skills fresh using the work provided by your school.
Take a 'little and often' approach- 20 to 30 minutes each day.
Especially focus on the skills and knowledge that link in with the GMCs mentioned above.

Try answering puzzles and problems each week- this will help with keeping your maths brain active and with preparing for problem solving.

Y11 Preparation for Continued Study of Mathematics

Mathematics

AS or A level

- the next level of study after GCSE
- often following a grade 6 or higher at GCSE

How to prepare for AS or A level

Make sure you keep your maths skills and knowledge fresh using any of the revision work or past papers your teachers provided.

Use websites recommended by your teachers, or like the Khan Academy remind yourself about any topics you have found tricky or can't remember.

If you are feeling confident with the work covered at GCSE, why not watch some tutorials on Pre-calculus on the Khan Academy - it will help prepare you for the calculus component of A level.

You could also try contacting your college for a suggested reading list.

The important thing is to keep your brain 'mathematically' active.

Puzzles, challenges and problem solving are all great for this.

Taking it a little further- you can find out more information about the qualification you will take by downloading the appropriate specification. You can use this alongside online tutorials to give you a head start on your course.

AQA AS and A Level specifications

OCR AS and A Level Specifications

- Mathematics A H230, H240
- Mathematics A, Further H235, H245
- Mathematics B (MEI) H630, H640
- Mathematics B (MEI), Further H635, H645

Pearson Edexcel AS and A Level Specifications

Khan Academy- is free to students and the tutorials have some explanation of why, not just a method, so it can be really helpful.

For further information please contact Helen Monaghan helen.monaghan@lancashire.gov.uk

Preparing for Functional Skills or GCSE English Language

How to prepare for college/Sixth Form:

1. Continue to complete any work set for you by your school or the college you will be going to in September.
2. Set aside between **30 mins and an hour daily** to improve your reading, writing and oracy by completing tasks found on these sites:

- **BBC Skillswise** – A useful site that helps you improve specific English skills.
- **FUNCTIONAL SKILLS** A great BBC Bitesize site that caters specifically for the development of English skills that are particularly relevant for future careers.
- **BBC Teach Punctuation** - This series of short films are aimed at a younger age group but are still interesting. They take punctuation out of the classroom and into professional work environments to demonstrate its relevance.
- **BBC Careers** This website is well worth scrutinising in detail – lots of useful information about general skills that are important for future careers as well as some useful advice about how to write a strong CV and application form.
- **Freerice** - Improve your word power whilst also donating rice to the World Food Programme for every correct answer. Change the difficulty level through the menu bar.
- **Seneca Spelling Course FREE**: KS3 Spelling, Punctuation and Grammar
- **Seneca Vocabulary Course FREE:** KS3 Decoding Words - Focused on developing knowledge about word roots, and common prefixes and suffixes.

READING

No matter what your future pathway holds, if you read regularly (preferably daily) it will have a beneficial impact on the qualifications you will go on to take, and will help develop this invaluable life skill.

Ensure you read a range of extended non-fiction and fiction as much as possible, preferably daily e.g. reliable news websites/newspapers, auto/biography, historical non-fiction, fiction etc.

If you enjoy fiction, you may want to access eBooks via these means:

- **LANCASHIRE LIBRARIES** (if you have a library card) Also, audio books are available.
- **LANCASHIRE LIBRARIES** Free articles to read.
- **Audible** - Currently free audio books for young people.
- **Gutenberg Free eBooks** (for copies of classic texts)
- **Kindle app** — many free books available.

PREPARING FOR A LEVEL ENGLISH LANGUAGE

A Level English Language is a really interesting and rewarding subject to study. It will give you the opportunity to study the components of the English Language in more detail and develop your own writing skills, especially your creative writing.

There will be an expectation at A Level that you are able to take ownership over your learning by studying independently and managing your time well. Therefore, it would be useful to establish good independent habits before you start your course, and prepare yourself a little for what you will be studying.

Colleges and schools will provide you with material or ideas about what you should be doing to prepare for your study of A Level English Language. You should focus on preparing for your course as advised by them; however, if you need a little more guidance or want to challenge yourself further, you might find the ideas below useful.

EVERYDAY

Allocate a block of study time to the following:

- **Improve your general knowledge of the origins, spoken elements, and grammar and punctuation of the English Language.**

  Look at the following websites, and think about the areas you would like to know more about. Watch/read the information. Make some flashcards about what you have learnt.
  - **Lexico** Look at the contents under the 'GRAMMAR' and 'EXPLORE' tabs at the top of the screen.
  - **Miss Hannah Does Grammar** Look at Word Hacks, and parts of speech starting with 1. Nouns working your way through to 21.Hyphens.
  - **BBC Skillswise** Look through each of the sections: reading, writing, sentences etc.
  - **University of Bristol** Improving Your Writing (grammar and punctuation exercises).
  - **Seneca Spelling Course FREE**: KS3 Spelling, Punctuation and Grammar
  - **Word origins**
  - **Accents and dialects**
  - **Language and Literature Timeline** & **Eduqas: Language in the Twenty-first Century**

- **Regularly read a quality newspaper such as *The Guardian*, *The Independent*, *The Telegraph*, *The Times* etc.** The '*Comment Is Free'* section of the Guardian can provide food for thought. Also, watch the news daily. Maybe *Newsnight* and *Question Time* too.

  Particularly read articles about the English Language on sites such as these (make notes about anything of interest):

  https://www.theguardian.com/media/mind-your-language

  https://www.independent.co.uk/topic/EnglishLanguage

Preparation for Continued Study of English

- **Listen to relevant podcasts/talks** such as:
  - Radio 4's 'Word of Mouth' programme on the BBC iPlayer. In this half hourly programme, Michael Rosen discusses various sorts of language from broad areas, such as the use of slang and language linked to gender identity, to more niche areas such as the naming of diseases and clichés in football commentary.

  - TED TALKS – ENGLISH LANGUAGE
    Including:
    - How did English evolve?
    - Where did English come from?
    - What makes a word real?
    - Go ahead, make up new words!
    - A brief history of plural word..s

  - **TED TALKS** - HOW LANGUAGE CHANGES OVER TIME
    Including:
    - Txting is killing language
    - How language transformed humanity
    - What our language habits reveal
    - What's a snollygoster? A short lesson in political speak.

  - **David Crystal lectures on YouTube**

- **Write 500 word articles on the following topics :**

1. **Accent and dialect**: *'Is having a strong accent a disadvantage in today's society?'*
   The **BRITISH LIBRARY** has a wealth of interesting articles about this topic - have a look at what is under the 'themes', 'articles' and 'sound recordings' tabs.

2. **Social Media:** '*Is social media having a detrimental effect on the quality of everyday language?*'

- **Write. Write. Write.** Use this time to experiment as a creative writer. Build up a writing notebook. Why not have a go at writing your own scripts, short stories and poems?

  https://www.bbc.co.uk/writersroom/
  Future Learn - Writing courses

- **Fancy a challenge?** Maybe have a go at one of the free Language courses here: Future Learn - Linguistics courses or listen to this podcast: Language and the Mind. This series of language investigations on the Cambridge University site also offer a real challenge for enthusiasts.

PREPARING FOR MEDIA/FILM STUDIES AT COLLEGE/ SIXTH FORM

Studying the media at a more advanced level will give you the opportunity to develop a specialist knowledge of the subject as well as developing creative skills.

There will be an expectation at college and sixth form that you are able to take ownership over your learning by studying independently and managing your time well. Therefore, it would be useful to establish good independent habits before you start your course, and also prepare yourself a little for what you will be studying.

Colleges and schools will provide you with material or ideas about what you should be doing to prepare for further study of Media Studies. You should focus on preparing for your course as advised by them; however, if you need a little more guidance or want to challenge yourself further, you might find the ideas below useful.

GENERAL TASKS

- **Improve your knowledge of specific aspects of the media** (e.g. film industry, music industry, advertising, television etc). Pick an area of the media you want to know more about and research it (see **'Film Research'** below). Make notes on what you learn and how groups of people and individuals are represented.

- **Investigate how the same news story is reported in three different news sources**. Make notes about similarities and differences in representation. Pick another story to investigate in the same news sources every two weeks.

- **Listen to podcasts/talks** about the arts and the media such as the following:
  - Front Row *Daily arts show that reviews topical plays, novels, films etc. and interviews novelists, playwrights, directors etc.*
  - The Media Show Radio show/podcasts about various aspects of the media.
  - TED talks e.g. 'Media With Meaning' playlist, Talks for Television Lovers playlist, Why We should Invest In A Free Press talk, How to Choose Your News talk.

- **Regularly read the media section of a reliable news source** e.g. https://www.theguardian.com/uk/media. Scroll down to read about the different sectors: *television, radio, digital media, press and publishing, media business.*

- **Produce your own blog/vlog or podacst**

- **Create your own media products** – Use this time to develop your technical skills. Why not have a go at writing your own scripts, making your own short films or animations? Maybe inspired by the media you have been consuming recently?

- **https://www.bbc.co.uk/writersroom/**
- **https://www.filmmakingstuff.com/filmmaking/**
- **Future Learn - Writing courses**

FILM – FURTHER RESEARCH

1. Regularly read articles/listen to podcasts about film:

- Film Programme on Radio 4.
- Mayo and Kermode's film review show/podcast
- https://www.theguardian.com/uk/film
- Beyond Bollywood

2. Watch as many key age- appropriate American, British and World Cinema films as possible. You might want to familiarise yourself with a specific genre you are unfamiliar with: Bollywood, musicals, westerns, sci-fi, war etc. Make notes about anything interesting about the way the film is shot.

- *Previous Oscar winners and nominees:* https://en.wikipedia.org/wiki/Academy_Award_for_Best_Picture
- *Critics' opinions about quality films:*
  - https://www.theguardian.com/film/2019/sep/13/100-best-films-movies-of-the-21st-century
  - https://www.theguardian.com/film/2019/dec/29/mark-kermode-best-films-of-2019
  - https://www.filmsite.org/greatfilmssummary.html

3. Maybe research key films that you have enjoyed: the director, budget, etc.
4. Maybe research major film companies/conglomerates (e.g. *Sony, Walt Disney Company*).
5. Watch relevant **TED talks** e.g. **'The Power of Film'**
6. Maybe create your own b/vlog to comment on what you have watched.

SPECIFIC UNITS OF WORK

You might want to use the following GCSE units of work from WJEC to find out more about various aspects of the media in a more structured way.

ADVERTISING

GCSE WJEC Advertising Unit

FILM

WJEC Exploring the Us and UK Film Industry

WJEC Film Trailers and Posters

TELEVISION

WJEC GCSE Media Studies: Crime Drama Booklet

WJEC Media Industries: Radio and Video Games

NEWS

WJEC News

WJEC Television News and News Websites

MUSIC

WJEC Music Industry and Social Media

GENERAL WJEC Factsheets about Media products: magazine brands, newspaper brands etc.

PREPARING FOR A LEVEL ENGLISH LITERATURE

A Level English Literature is a really interesting and rewarding subject to study. It will give you the opportunity to study a variety of literary works from different periods in history, developing your own thoughts and opinions about your reading through discussion and academic writing.

There will be an expectation at A Level that you are able to take ownership over your learning by studying independently and managing your time well. Therefore, it would be useful to establish good independent habits before you start your course, and also prepare yourself a little for what you will be studying.

Colleges and schools will provide you with material or ideas about what you should be doing to prepare for your study of A Level English Literature. You should focus on preparing for your course as advised by them; however, if you need a little more guidance or want to challenge yourself further, you might find the ideas below useful.

Some recommended reading lists are attached. These lists are lengthy but there is not an expectation that all texts from the list should be read, rather they provide you with some ideas of what you could try - above all choose texts/tasks that interest you and that you enjoy.

EVERYDAY

Allocate at least an hour a day to these tasks:

1. **Broaden your knowledge of literary texts.** Read as many of 'the classics' as possible (maybe slot in some audio books for variety). Ask for a reading list from your teacher or college/school, or use the attached lists to sample some of the suggested texts – **you do not need to read them all!** Try to read **one substantial text a week** (some will take longer!) and a selection of poetry **(a couple of poems a week)** as well as novels and plays. Remember most classics can be downloaded for free online, and one of the benefits of an eBook is that you can look up words you are unfamiliar with. Remember, if you do not want to carry on reading a particular book, try a new one. You do not have to persevere with a book you are not enjoying.

   Look on book recommendation websites such as https://www.goodreads.com/ to help you decide what to read first/next based on what you have enjoyed in the past.

   If your college or school has given you a list of texts you will be studying at A Level, prioritise those texts, and maybe try a read a few more books/poems/plays by the authors/poets/playwrights you will be studying rather than use the attached reading lists.

2. **Watch free online theatrical performances**

   National Theatre at Home

   Available from **7pm on YouTube on Thursdays for one week.**

   - *Treasure Island* 16th April
   - *Twelfth Night* 23rd April

Globe productions

YouTube Premieres every two weeks **(Monday at 7.00pm)** on the following dates:

- *Romeo and Juliet* - April 20th
- *A Midsummer Night's Dream* - May 4th
- *Two Noble Kinsman* - May 18th
- *The Winter's Tale* - June 1st
- *The Merry Wives of Windsor* - June 15th

Films are available for two weeks following their premiere.

RSC

In partnership with the BBC, the following RSC productions will be made available for free viewing over the next few weeks:

- Macbeth (2018), directed by Polly Findlay with Christopher Eccleston and Niamh Cusack
- Hamlet (2016), directed by Simon Godwin with Paapa Essiedu
- Romeo and Juliet(2018), directed by our Deputy Artistic Director Erica Whyman
- Much Ado About Nothing (2014), directed by Christopher Luscombe
- Othello (2015), directed by Iqbal Khan with Hugh Quarshie and Lucian Msamati
- The Merchant of Venice (2015), directed by Polly Findlay

In addition, other RSC shows can be accessed through Marquee TV with their 30 days free trial.

3. **Regularly read a quality newspaper such as *The Guardian*, *The Independent*, *The Telegraph*, *The Times* etc.** The '*Comment Is Free'* section of the Guardian can provide food for thought. Also, watch the news daily. Maybe *Newsnight* and *Question Time* too.

OPTIONAL EXTRAS

1. **Listen to radio programmes that will broaden your knowledge of texts** - Regularly listen to a literary radio programme on Radio 4 (through BBC Sounds). Find one you like from the list below. You do not have to listen to them all. Remember to click on the tabs at the top of the page, and listen to archived podcasts as well as live programmes.

   These programmes might give you some ideas about what to read next.

A Good Read	Famous people talk about their favourite books.	http://www.bbc.co.uk/programmes/boo6v8jn
Bookclub	James Naughtie talks to acclaimed authors about their best-known novels.	http://www.bbc.co.uk/programmes/bo6f54rs
World Book Club	Monthly programme that focuses on great world authors past and present.	http://www.bbc.co.uk/programmes/po338wlh http://www.bbc.co.uk/programmes/po2vzyc4
Poetry Please	Famous Liverpudlian poet Roger McGough reads and discuss modern greats and classic poems and poets.	http://www.bbc.co.uk/programmes/bo6f54rv
Open Book	Programme looking at new fiction and non-fiction with Mariella Frostrup	https://www.bbc.co.uk/programmes/boo6qp6p
With Great Pleasure	Famous people read favourite texts aloud, particularly poems.	https://www.bbc.co.uk/programmes/boo6qrx7
Book of the Week/ Book at bedtime	Daily/ nightly reading of a chosen book	https://www.bbc.co.uk/programmes/boo6qftk
Listen to afternoon radio plays – on every day.		https://www.bbc.co.uk/programmes/bo4xxpog

2. **Read some of the books on the shortlist for international and national book prizes such as:**

- National Short Story Award
- Man Booker Prize
- Women's Prize for Literature
- The Costa Book Awards

See if you can get hold of anything that sounds interesting, and have a read!
These books will be very current and might be future classics.

Use the internet to help perfect your writing skills
Consider what areas you would like to work on and see which of these websites might help:

- Bristol University – Basic grammar and punctuation exercises
- Sussex University – Punctuation Basics
- Lexico

3. **Blog/ tweet about your reading or set up a virtual reading group online with friends/ family.**

Poetry – READING LIST

This reading list might help to introduce you to some of the most famous poets and poems in English Literature.

It is recommended that you dip in and out of the poems here before you begin your course and also during your course – you certainly do not need to read every single poem on this list in chronological order!

Aim to read a couple of poems a week at least.

Copies of these poems can be found easily online.

Shakespeare (1564 - 1616) Sonnet 18, 29, 116, 130
Ben Jonson (1572- 1637) On My First Son Song: to Celia ["Drink to me only with thine eyes"]
Andrew Marvell (1621 - 1678) To His Coy Mistress
William Blake (1757 - 1827) A Poison Tree The Sick Rose The Tyger
William Wordsworth (1770 – 1850) ***Poet Laureate 1843-50*** I Wandered Lonely As a Cloud (Daffodils) Upon Westminster Bridge
John Keats (1795 – 1821) La Belle Dame Sans Merci To Autumn
Elizabeth Barrett Browning (1806 – 1861) Sonnet 43: How do I love thee? Sonnet 14: If thou must love me…
Alfred Tennyson (1809 – 1892) Poet Laureate 1850-1892 The Charge of the Light Brigade The Lady of Shalott The Eagle
Robert Browning (1812 – 1889) My Last Duchess Porphyria's Lover
Emily Dickinson (1830 – 1886) Hope is the Thing with Feathers Nature the Gentlest Mother
Christina Rossetti (1830 – 1894) A Birthday Remember When I Am Dead My Dearest
Thomas Hardy (1840 – 1928) Neutral Tones The Darkling Thrush
Gerard Manley Hopkins (1844 – 1889) The Caged Skylark The Windhover
Rudyard Kipling (1865 – 1936) If The Way Through the Woods
W B Yeats (1865 – 1939) The Cloths of Heaven When You Are Old

Robert Frost (1874 – 1963) Nothing Gold Can Stay The Road Not Taken
Stevie Smith (1902 – 1971) Not Waving But Drowning
John Betjemin (1906 -1984) Poet Laureate 1972-1984 On A Portrait of a Deaf Man Slough (1937)
W H Auden (1907 – 1946) Funeral Blues Night Mail Refugee Blues
Dylan Thomas (1914 – 1953) Do not go gentle into that good night Fern Hill
Vernon Scannell (1922 – 2007) A Case of Murder Nettles
Thom Gunn (1929-2004) Considering the Snail Still Life
Ted Hughes (1930 – 1998) Poet Laureate 1984-1998 Hawk Roosting The Thought-Fox Wind
Chinua Achebe (1930 – 2013) Vultures A Mother in a Refugee Camp
Derek Walcott (1930 – 2017) After the Storm Love After Love The Fist
Sylvia Plath (1932 – 1963) Daddy Mushrooms
Gillian Clarke (1937 -) Catrin Cold Knapp Lake
Seamus Heaney (1939 – 2013) Blackberry Picking Digging Mid-term Break
John Agard (1949 -) Half-Caste In Times of Peace Listen Mr Oxford Don
Grace Nichols (1950 -) Forest Island Man Hurricane Hits England
Maya Angelou (1951 – 2014) Life Doesn't Frighten Me At All Phenomenal Woman Still I Rise

Imtiaz Dharker (1954 -) Blessing This Room
Moniza Alvi (1954 -) Presents From My Aunts in Pakistan An Unknown Girl
Carol Ann Duffy (1955 -) **(Poet Laureate 2009-2019)** Ann Hathaway Stealing We Remember Your Childhood Well
Benjamin Zephaniah (1958 -) No Problem The British We Refugees
Simon Armitage (1963 -) **(Poet Laureate May 2019+)** About His Person Father.. Give November

Preparation for Continued Study of English

NOVELS – READING LIST

Here are some recommended reads – a mix of modern novels (might be harder to get for free unless you can use Borrowbox through Lancashire libraries) and what might be considered more classic literature (lots of free copies online). You do not need to read every book here! Just give some of these texts a try if you can get your hands on them, or any other texts by the same authors. **Aim to read about a book a week (though some will take longer), and, if you really do not like a book you have started, try another one!**

Achebe, Chinua	Things Fall Apart
Adiche , Chimamanda Ngozi	Half of A Yellow Sun Purple Hibiscus
Ali, Monica	Brick Lane
Atwood, Margaret	Oryx and Crake The Handmaid's Tale The Blind Assassin
Austen, Jane	Emma Pride and Prejudice Sense and Sensibility
Banks, Iain	The Crow Road
Barker, Pat	Regeneration
Bronte, Charlotte	Jane Eyre
Bronte, Emily	Wuthering Heights
Conrad, Joseph	Heart of Darkness
Dickens, Charles	David Copperfield Great Expectations
Doyle, Roddy	Paddy Clarke Ha Ha Ha
Du Maurier, Daphne	Rebecca
Eliot, George	The Mill on The Floss Middlemarch
Faukes, Sebastian	Birdsong
Fitzgerald, F. Scott	The Great Gatsby
Golding, William	Lord of the Flies
Forrester, E.M	Howards End
Hardy, Thomas	Far from the Madding Crowd
Hosseini, Khalid	A Thousand Splendid Suns
Ishiguro, Kazuo	The Remains of the Day Never Let Me Go
Kesey, Ken	One Flew Over The Cuckoo's Nest
Lee, Harper	To Kill a Mockingbird
Martel, Yann	The Life of Pi
McEwan, Ian	Atonement Enduring Love
Mitchell, David	Cloud Atlas, Black Swan Green
Morrison, Toni	Beloved
Orwell, George	Animal Farm Nineteen Eighty-Four
Plath, Sylvia	The Bell Jar
Roy, Arundhati	The God of Small Things
Salinger, J.D.	The Catcher in the Rye

Shelley, Mary	Frankenstein
Stoker, Bram	Dracula
Tartt, Donna	The Goldfinch
Twain, Mark	Huckleberry Finn
Walker, Alice	The Colour Purple
Winterson, Jeanette	Oranges Are Not The Only Fruit
Smith, Zadie	White Teeth

PLAYS

To challenge yourself, you might want to have a go at reading some Shakespeare independently. Use online study guides and translations to help you.

If you can watch quality performances of Shakespeare plays, even better. After all, Shakespeare wrote his plays to be watched! The **RSC** and **Globe Theatre** are making some of their past performances available for free online – a wonderful introduction to the Bard's work!

Furthermore, you might enjoy watching plays by other playwrights through the **National Theatre** website where you will find some free productions online this summer (every Thursday night).

Other playwrights' work to enjoy:

Alan Bennet

Arthur Miller

George Bernard Shaw

Henrik Ibsen

Oscar Wilde

Sean O'Casey

Shelagh Delaney

Tennessee Williams

Tom Stoppard

PREPARING FOR BTEC FIRST and BTEC NATIONAL in APPLIED SCIENCE

A **BTEC** in **Applied Science** is a **great** choice for students looking for a practical scientific qualification. The courses aim to provide students with the relevant skills and knowledge that employers value, as well as the confidence to progress into a fulfilling, exciting career.

BTEC First: (Level 1 and Level 2)
BTEC National: (Level 3)
● exemplify scientific principles in vocational contexts, leading to an understanding of how those principles are applied in practice, and can facilitate a move either onto further periods of study or into employment.
● give learners the opportunity to gain a broad understanding and knowledge of science principles and practice
● give learners the opportunity to develop a range of related skills and techniques that are essential for successful performance in working life
● give full-time learners the opportunity to enter potential employment within a wide range of science sectors such as process, industrial, medical, or forensic.

Colleges and schools will provide you with material or ideas about what you should be doing to prepare for your study of BTEC Applied Science. You should focus on preparing for your course as advised by them; however, if you need a little more guidance or want to challenge yourself further, you might find the ideas below useful.

Exam boards offering BTEC First and BTEC National

- **Edexcel BTEC Nationals**
- **Edexcel BTEC Firsts**

Useful science websites include

- http://rsb.org.uk Royal Society of Biology website
- http://www.biologymad.com
- http://www.biologyguide.net/
- http://www.rsc.org Royal Society of Chemistry website
- http://www.chemistryworld.com
- http://physicsworld.com
- http://iop.org Institute of Physics website

- New Scientist, SciShow and YouTube videos (particularly animations) are also handy.

EVERYDAY

Allocate a block of study time to the following:

- **Improve your general knowledge of the language of Science, including the root words and common prefixes and suffixes used**
- **Listen to relevant podcasts/talks** such as:

  - **The Infinite Monkey Cage**
    Consistently topping the UK's science and medicine podcast chart, this extended version of the Radio 4 programme features expert guests and more irreverent contributors discussing big scientific questions or news. Witty, fun and informative, it is presented by physicist Brian Cox and comedian Robin Ince.
  - **Radiolab**
    Known for its slick editing, Radiolab stitches together deep reportage, storytelling, interviews, archive sound clips and guest discussion to create revealing documentaries and compelling stories. Recent episodes have looked at the transmissibility of so-called 'devil tumours' in Tasmanian devils and the researchers who first cultured Henrietta Lacks' cells.
  - **Waking Up with Sam Harris**
    Neuroscientist, philosopher and best-selling author Sam Harris tries to make sense of societal trends and events – from Donald Trump and ISIS to futurology and artificial consciousness – by looking at things from an evolutionary and neuroscience perspective. The podcast won a 2017 Webby Award for best podcast in the science and education category.
  - **The Life Scientific**
    For those who don't make a date to tune in to the weekly Radio 4 programme, The Life Scientific is available to download as a podcast. Host Professor Jim Al-Khalili talks to leading scientists about their life and work, finding out what inspires and motivates them and asking what their discoveries might do for humanity.

TED Talks on Science

Including:

- The Wonders of the Molecular World
- How Does Alcohol Make You Drunk?
- Why Sleep Matters Now More Than Ever
- How We Can Change the Planets Climate Future
- A Brief Tour of the Last 4 Billion Years

PREPARING FOR A LEVEL BIOLOGY

The study of life itself, A Level Biology explores the theories and principles involved in living systems. Topics you might learn about include: lifestyle, transport, genes and health, development, plants and the environment, the natural environment and species survival, energy, exercise and co-ordination, as well as practical biology and research skills. By the end of the course, you will know about the principles of genetics, molecules, taxonomy, natural selection, evolutionary theory, global warming, bacteria and viruses, and more.

You will gain an understanding of how society makes decisions about scientific issues, as well some of the ways in which the scientific community contributes to the success of the economy and society.
If you are interested in recent developments in genetic engineering or disease prevention, understanding how we evolved, finding out how cells – "little bags of water with things dissolved in them" – carry out so many different processes in a seemingly effortless fashion, tracking down natural resources, the true impacts of pollution on the natural world, or animal care and conservation programmes, to name a few, then this is your subject.

There will be an expectation at A Level that you are able to take ownership over your learning by studying independently and managing your time well. Therefore, it would be useful to establish good independent habits before you start your course, and prepare yourself a little for what you will be studying.

Colleges and schools will provide you with material or ideas about what you should be doing to prepare for your study of A Level Biology. You should focus on preparing for your course as advised by them; however, if you need a little more guidance or want to challenge yourself further, you might find the ideas below useful.

Reading that will help prepare for A Level Biology:

- *The Greatest Show on Earth: The Evidence for Evolution* by Richard Dawkins;
- *Genome: the Autobiography of a Species in 23 Chapters* by Matt Ridley;
- *The Immortal Life of Henrietta Lacks* by Rebecca Skloot;
- *The Lives of a Cell: Notes of a Biology Watcher* by Lewis Thomas;
- *The Botany of Desire: A Plant's-Eye View of the World* by Michael Pollan;
- *Power, Sex, Suicide: Mitochondria and the Meaning of Life* by Nick Lane.

Exam boards offering A Level Biology

- **AQA**
- **Cambridge International Education**
- **Edexcel**
- **OCR**

Useful biology websites include

- http://www.biologymad.com
- http://www.biologyguide.net/

- New Scientist, SciShow and YouTube videos (particularly animations) are also handy.

EVERYDAY

Allocate a block of study time to the following:

- **Improve your general knowledge of the language of Biology, including the root words and common prefixes and suffixes used**

Look at the following websites, and think about the areas you would like to know more about. Watch/read the information. Make some flashcards about what you have learnt.

- **Life: The Science of Biology** - useful website with animated tutorials, activities, flash cards, self-quizzes, glossary etc.
- **Dr. Saul's Biology in Motion** - original, entertaining, interactive biology learning activities
- **Biology-Online** - useful site for biological information, ideal for homework, research projects, and general interest
- **The Biology Project (University of Arizona)** - an American site. It has some fantastic online tutorials on biochemistry, respiration, photosynthesis, immunology and many more
- **Your Genes Your Health** - A multimedia guide to genetic disorders
- **Cells Alive** - Cell Biology images and animations
- **Cell Biology Animation** - A fantastic site that has many key concepts animated for easy learning
- **Nucleus Medical Art** - A site with many interesting medical animations
- **Multimedia Heart**
- **Evolution Game** - Provided by the BBC
- **You Try it (A Science Odyssey)** - Cool activities, including Atom Builder, Probe the Brain, and Technology at Home (requires Shockwave plug-in)
- **Gary Carlson** - medical and biological illustrations and animations
- **Study Stack** - use your computer to display a stack of "virtual cards" which contain information about a certain subject. Just like flashcards, you can review the information at your own pace discarding the cards you've learned and keeping the ones you still need to review.

- **Listen to relevant podcasts/talks** such as:

- **The Infinite Monkey Cage**
  Consistently topping the UK's science and medicine podcast chart, this extended version of the Radio 4 programme features expert guests and more irreverent contributors discussing big scientific questions or news. Witty, fun and informative, it is presented by physicist Brian Cox and comedian Robin Ince.
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  For those who don't make a date to tune in to the weekly Radio 4 programme, The Life Scientific is available to download as a podcast. Host Professor Jim Al-Khalili talks to leading scientists about their life and work, finding out what inspires and motivates them and asking what their discoveries might do for humanity. An episode with The Biologist's own Alison Woollard can be found **here.**

TED talks on Biology

Including:

- My Favourite Animal
- The Future of Medicine
- Insects are Awesome
- Ocean Wonders

PREPARING FOR A LEVEL CHEMISTRY

A level Chemistry studies the material world, and through chemistry we can describe and explain questions such as: "what happens when sugar dissolves in tea?"; "why is mercury a liquid at room temperature?"; "how do we make plastics?"; "what can we do about global warming?"; "how and why will I be affected if oil runs out?"
From baking a cake to recharging a mobile phone, chemistry is involved in everything we do; and our lives are inextricably influenced by many aspects of chemistry. Chemistry will continue to be at the forefront of responding the needs of society; with chemists central to making advances in designing new materials, efficient energy use, drug development, and technology, to name but a few.

There will be an expectation at A Level that you are able to take ownership over your learning by studying independently and managing your time well. Therefore, it would be useful to establish good independent habits before you start your course, and prepare yourself a little for what you will be studying.

Colleges and schools will provide you with material or ideas about what you should be doing to prepare for your study of A Level Chemistry. You should focus on preparing for your course as advised by them; however, if you need a little more guidance or want to challenge yourself further, you might find the ideas below useful.

These transition activities will help prepare – from the Royal Society of Chemistry

- **Chemistry** Test your ability to balance equations, construct ionic formulae and write equations from text using our basic chemistry competencies Starters for ten questions.
- **Maths for Chemistry** Use these Starters for ten to gauge your grasp of basic mathematical competencies including rearranging equations, significant figures and unit conversions.
- **Practical Chemistry** These Starters for ten cover basic practical skills such as laboratory equipment, recording results and drawing scatter graphs.

Exam boards offering A Level Chemistry

- **AQA**
- **Cambridge International Education**
- **Edexcel**
- **OCR**

Preparation for Continued Study of Science

EVERYDAY

Allocate a block of study time to the following:

- **Improve your general knowledge of the language of Chemistry, including the root words and common prefixes and suffixes used**

Look at the following websites, and think about the areas you would like to know more about. Watch/read the information. Make some flashcards about what you have learnt.

- **Chemguide** A wealth of resources to support the learning of A Level Chemistry
- **Revision videos** A YouTube channel containing a large number of short videos designed to help you revise the essential chemistry you have already learnt elsewhere.
- **Khan Academy** A huge resource of shortish (10 minutes or so) video lectures on all sorts of educational topics (including chemistry, biology, physics and maths) organised by subjects.
- **Periodic Table of Videos** A full periodic table from which you can access short, quirky videos about any element. From the University of Nottingham.
- **makescienceeasy.com** This site has some really useful talks under the heading of "Scientific Literacy" dealing with some basic maths and graph skills, and detailed work on the things you need to think about in carrying out scientific investigations. There are also questions after each item.

Listen to relevant podcasts/talks such as:

- **Chemistry World**
  Chemical stories, interviews, news and opinions
- **Distillations**
  The Distillations podcast deftly weaves together science, culture and history to tell some truly engaging stories. It's produced by the Chemical Heritage Foundation, an organisation whose mission is to "foster dialogue on science and technology in society." Its headquarters in Philadelphia has a museum, library and more which looks at the history of chemistry, chemical engineering and the life sciences.
- **Science Elements**
  These podcasts give a bite-sized overview of some of the latest research published by the American Chemical Society. It brings to life the impact chemistry can have on a range of aspects of modern life from diet and health to the environment and the energy industry. Some of the topics recently discussed include how a fruit protein could replace high-fructose corn syrup and sugar and optimizing biofuel production from algae using carbon dioxide emissions.

TED Talks on Chemistry

Including:

- The Galactic Recipe for a Living Planet
- How I Claimed A Seat at the Periodic Table
- The Incredible Chemistry Powering your Smartphone
- Is Fire a Solid, Liquid or a Gas?

PREPARING FOR A LEVEL PHYSICS

A level Physics gives you the opportunity to explore the phenomena of the universe and to look at theories that explain what is observed. This subject combines practical skills with theoretical ideas to develop descriptions of the physical universe. You will learn about everything from kinematics to cosmology and many recent developments in fascinating topics, such as particle physics. If you are interested in the limits of space, the beginning of time and everything in between this is the subject for you. Physics is more than a subject – it trains your brain to think beyond boundaries.

There will be an expectation at A Level that you are able to take ownership over your learning by studying independently and managing your time well. Therefore, it would be useful to establish good independent habits before you start your course, and prepare yourself a little for what you will be studying.

Colleges and schools will provide you with material or ideas about what you should be doing to prepare for your study of A Level Physics. You should focus on preparing for your course as advised by them; however, if you need a little more guidance or want to challenge yourself further, you might find the ideas below useful.

Reading that will help prepare for A Level Physics:

- *A short History of Nearly Everything* by Bill Bryson;
- *Why don't penguins' feet freeze*? by New Scientist,
- *The Quantum Universe: Everything that can happen does happen* by Brian Cox and Jeff Forshaw.

- Good websites for Physicists include www.iop.org and www.physicsworld.com

Exam boards offering A Level Physics

- AQA
- Cambridge International Education
- Edexcel
- OCR

EVERYDAY

Allocate a block of study time to the following:

- **Improve your general knowledge of the language of Physics, including the root words and common prefixes and suffixes used**

Look at the following websites, and think about the areas you would like to know more about. Watch/read the information. Make some flashcards about what you have learnt.

- S-cool Great revision website. Interactive activities.
- TopMarks A database of physics resources
- School Physics Excellent animations + Teaching and revision resources
- Animated Physics A science and charcuterie blog!

YouTube Channels

- Veritasium = This is a channel of science and engineering videos featuring experiments, interviews, demos
- MinutePhysics = as the name suggests, physics concepts explained in a minute! Good way to start thinking broadly about physics
- NASA channel - keep up to date with NASA
- Smarter Every Day = nice collection of videos on interesting topics

Listen to relevant podcasts/talks such as:

- The Titanium Physics Podcast Dr. Ben Tippett and his team of physicists believe that anyone can understand physics. Black Holes! Lightning! Coronal Mass Ejections! Quantum Mechanics! Fortnightly, they explain a topic from advanced physics, using explanations, experiments and fun metaphors to a non-physicist guest. Visit the website to see a list of topics sorted by physics field.
- Physics Frontiers Jim Rantschler and Randy Morrison discuss physics from elementary particles to cosmological effects at the limits of our theoretical knowledge or have recently emerged.
- Star Talk Radio Science, pop culture and comedy collide on Star Talk Radio! Astrophysicist and Hayden Planetarium director Neil deGrasse Tyson, his comic co-hosts, guest celebrities and scientists discuss astronomy, physics, and everything else about life in the universe. Keep Looking Up!
- Physics World Weekly offers a unique insight into the latest news, breakthroughs and innovations from the global scientific community. Our award-winning journalists reveal what has captured their imaginations about the stories in the news this week

TED Talks on Physics

Including:

- The Lights and Sounds of the Universe
- Mind Bending Questions from Physics
- Jaw Dropping Science Breakthroughs
- The Search for Dark Matter and What We've Found So Far

For further information please contact Andy Pearson andrew.pearson@lancashire.gov.uk