



## Summer Assignments 2023



Dear Students

We understand that there will be a mixture of excitement and trepidation for many of you as you contemplate the more advanced A Level curriculum in the subjects you have chosen. To facilitate engagement with the A Level subject courses each department has prepared some summer assignments for you to undertake.

Please have a look through this booklet to find the subjects you have applied to study with us and do as many as you can of the suggested assignments. These are not mandatory but we believe they will give you a little insight into what you'll be studying and hopefully whet your academic appetite!

We look forward to seeing you in the Sixth Form on Tuesday 5 September and wish you a lovely, restful summer break in the interim.

Olivia Camillo  
Director of Sixth Form



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# Biology

To prepare yourself for A Level Biology, we would like you to undertake the following task, to ensure you are confident with GCSE maths skills that are required in A Level Biology.

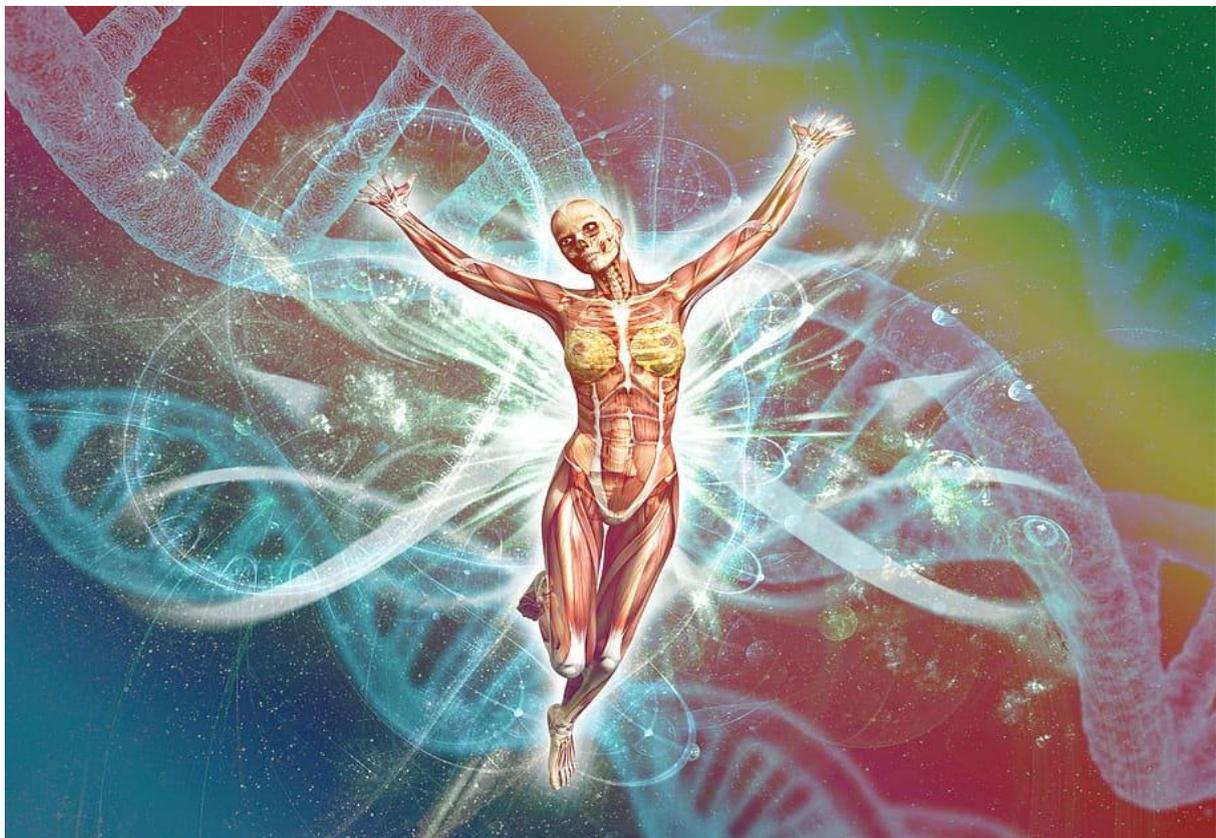
Please complete the [Maths in Biology](#) workbook which can be found in the Biology section of the course descriptions on the sixth form website. You will need to bring the completed booklet to your first biology lesson.

We also recommend that you keep up to date with current developments in Biology. This could be done by reading science pages of one or more daily newspapers (e.g. *The Independent* or *The Guardian*).

Finally, to further stoke your interest, we recommend the following books:

- [The Epigenetics Revolution](#) and [Hacking the Code of Life](#) by Nessa Carey
- [I Think You'll Find It's a Bit More Complicated Than That](#) by Ben Goldacre
- [The immortal life of Henrietta Lacks](#) by Rebecca Skloot
- [Here Comes the Sun](#) and [Y: The Descent of Men](#) by Steve Jones
- [Elephants on Acid](#) by Alex Bose
- [The Gene](#) by Siddhartha Mukherjee
- [Why We Sleep](#) by Matthew Walker

If you have any questions, feel free to email Ms Totten: [ktotten@csg.school](mailto:ktotten@csg.school).



# Chemistry

To ensure you make a good start to A Level Chemistry, it's vital your understanding of the following areas of the GCSE is as strong as possible:

- Formulae
- Balancing equations
- Quantitative chemistry
- Structure and bonding

There will be a test on these topics early in the new term. To help you prepare, you can download a [Transition from GCSE to A Level](http://fdslive.oup.com/www.oup.com/oxed/secondary/science/Science_A_Level_Transition_Pack_Chemistry.pdf) workbook from OUP

[http://fdslive.oup.com/www.oup.com/oxed/secondary/science/Science\\_A\\_Level\\_Transition\\_Pack\\_Chemistry.pdf](http://fdslive.oup.com/www.oup.com/oxed/secondary/science/Science_A_Level_Transition_Pack_Chemistry.pdf).

Good, relevant popular science books to read are:

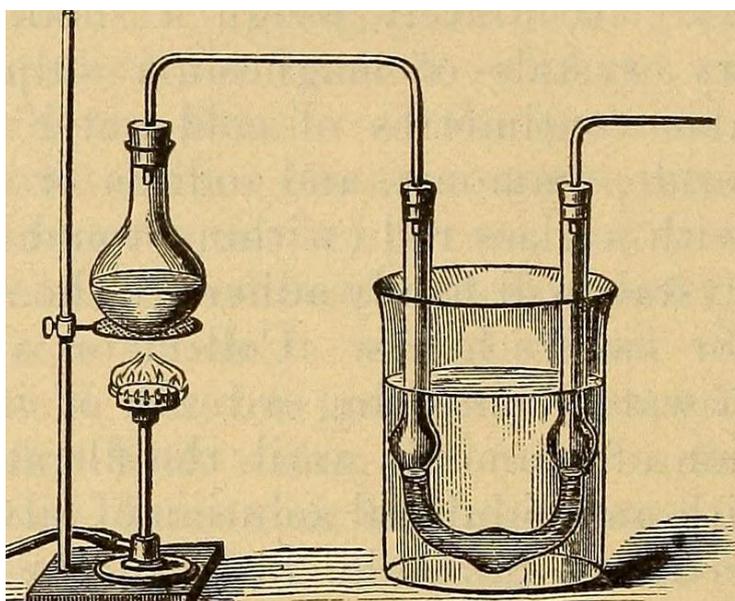
- [\*Periodic Tales: The Curious Lives of the Elements\*](#) by Hugh Aldersey-Williams
- [\*The Disappearing Spoon...and other true tales from the Periodic Table\*](#) by Sam Kean
- [\*Caesar's Last Breath: The Epic Story of The Air Around Us\*](#) by Sam Kean
- [\*Mauve: How One Man Invented a Colour that Changed the World\*](#) by Simon Garfield
- [\*Napoleon's Buttons: How 17 Molecules Changed History\*](#) by Penny Le Couteur and Jay Burreson

Accessible titles in OUP's *Very Short Introductions* series are:

- [\*Molecules\*](#) by Philip Ball
- [\*Reactions\*](#) by Peter Atkins
- [\*The Elements\*](#) by Philip Ball

We look forward to meeting you in September!

If you have any questions, feel free to email Mr Flynn: [sflynn@csg.school](mailto:sflynn@csg.school).



# Classical Civilisation

Welcome to Classical Civilisation A Level and congratulations on choosing an excellent subject to study! A Level Classical Civilisation offers something for everyone, including history, politics, philosophy, literature and art history. You'll also sharpen up plenty of transferable skills, such as textual and visual analysis, using evidence, structuring and writing an extended argument, and debating articulately.

You will be studying these three topics from the OCR Specification:

- The World of the Hero: Greek Epic: Homer's Odyssey
- Culture and the Arts: Greek Theatre
- Beliefs and Ideas: Love and Relationships

To prepare to begin the course, you should do the following:

1. Buy, read, and bring the following books to your first lesson. They are all available from good bookshops and online.

## **The World of the Hero: Greek Epic: Homer's Odyssey**

- **ESSENTIAL:** [The Odyssey](#) by Homer (Penguin, translated by E.V. Rieu, edited by D.C.H. Rieu) - this will be the set text that we read in class. Buy it, read the introduction and make notes. Then begin reading the text and get as far as you can!
- **OPTIONAL:** [The Odyssey](#) - translated by Emily Wilson - a new translation - a good starting point for discovering the feel of the text, with an **excellent introduction**. If you have time, read this version too and compare how the two translators have expressed the story differently.

## **Culture and the Arts: Greek Theatre**

- **ESSENTIAL:**
  - [The Three Theban Plays](#) by Sophocles (Penguin, translated by Robert Fagles)
  - [Euripides: Bacchae](#) (Cambridge Translations from Greek Drama)
  - [Aristophanes: Frogs](#) (Cambridge Translations from Greek Drama)

Read the introductions and read the set plays: Bacchae, Frogs and King Oedipus.

*N.B: please contact us before the Summer holidays if you need support in purchasing these books, especially if you have been in receipt of Free School Meals.*

2. Dip in to this mini-reading list of modern responses to your Year 12 texts, to consider how these ancient stories continue to be relevant today:
  - The Odyssey:
    - i. Circe - Madeleine Miller: a whistlestop tour of Greek mythology from Circe's perspective - moving, chilling, powerful.
    - ii. The Penelopiad - Margaret Atwood: Penelope's scathing take on Odysseus' story.
    - iii. An Odyssey - Daniel Mendelsohn: the memoir of a Classics professor, exploring his relationship with his father as they embark on the study of the Odyssey together. Clever and powerful.
  - Greek Tragedy:
    - i. Home Fire - Kamila Shamsie: a modern retelling of Antigone, shifted to a modern British context - completely mind-blowing; one of the best Classical adaptations we've read in a few years (read Antigone along with it).

- ii. The Children of Jocasta - Natalie Haynes: a fresh perspective on an ancient story, reimagining how the Oedipus and Antigone stories would look if the female characters took centre stage.

**3. Write us a mini-essay about your choice to study Classics.** It should be about a page long. It should tell us about what led you to choose the subject for A Level, and what you are looking forward to about the course. Bring it to the first lesson for us to read.

4. To fuel your wider knowledge about and interest in the Classical World:

- Subscribe to [Natalie Haynes Stands Up For The Classics](#) - or purchase the last seasons on Audible - excellent podcasts about the most interesting historical and literary characters in Classics.
- Subscribe to the BBC Radio 4 In Our Time podcast and listen to a few of the Classical episodes which catch your eye:
  - i. [Greek episodes](#)
  - ii. [Roman episodes](#)

Enjoy! If you have any questions, feel free to email Ms Maguire: [hmaguire@csg.school](mailto:hmaguire@csg.school).



# Drama and Theatre Studies

The Drama and Theatre Studies A Level course involves a very exciting blend of written and practical units. Some practical units will involve you devising your own work in groups; others will involve preparing scripted work. Across the two years of study you will explore a range of theatre practitioners and you will use their methodologies to shape your practical work, alongside the learning that you take from trips to the theatre or exploration of pre-recorded live theatre. You will study two plays for the final exam. Texts studied for exams will be explored practically in class.

Here is how you can prepare for Drama and Theatre Studies:

- Make a visit to the theatre. Write a one paragraph review of the production/s you see, focusing on what elements engaged you. Try to think beyond performers. What about the set / costume / lighting / sound design?

The course requires you to develop a sense of theatre across the ages so please read as many as you can of the following plays:

- [\*Oedipus the King\*](#) by Sophocles
- [\*A Doll's House\*](#) by H. Ibsen
- [\*The Caucasian Chalk Circle\*](#) by B. Brecht
- [\*Three Sisters\*](#) by A. Chekhov
- [\*Amadeus\*](#) by P. Shaffer
- [\*Posh\*](#) by L. Wade

Produce an A4 page of notes on any of the following practitioners:

- Katie Mitchell
- Max Stafford-Clark
- Antonin Artaud
- Bertolt Brecht

If you have any questions, feel free to email Ms Cohen: [jcohen@csg.school](mailto:jcohen@csg.school).



# Economics

Write a brief essay of two pages on **ONLY ONE** of the following four topics, providing arguments in favour and against your chosen topic:

- Examine the measures that the UK government and the Bank of England can put in place to contain the risk of soaring inflation
- Evaluate the impact of Russia's war on Ukraine on the global economy.
- The chancellor should intervene to address the cost of living crisis for the UK households. To what extent do you agree with this statement?
- Evaluate the implications of the rapidly rising interest rates on the UK economy.

A book I very much enjoyed reading and I would recommend is [Economics: The User's Guide](#) by Ha Joon Chang.

Enjoy the read and your research and we look forward to seeing you in September.

If you have any questions feel free to contact Mr Firouzbakhsh, [hfirouzbakhsh@csg.school](mailto:hfirouzbakhsh@csg.school), and/or Mr Hill, [ohill@csg.school](mailto:ohill@csg.school).



# English Literature

Good English students have a passion for reading and they think about what they read. They are also prepared to persevere with more challenging texts and to experiment with authors and genres.

To prepare for a unit on narrative as well as to gain experience of some important classic and contemporary novelists, please ensure you read the following novels:

- [\*The Great Gatsby\*](#) by F. Scott Fitzgerald
- [\*Nineteen Eighty Four\*](#) by George Orwell
- [\*The Bloody Chamber\*](#) by Angela Carter
- [\*The Bell Jar\*](#) by Sylvia Plath

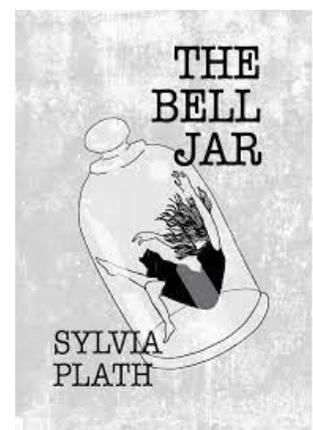
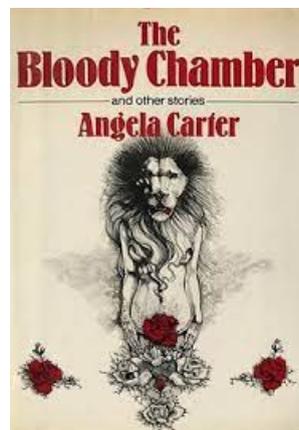
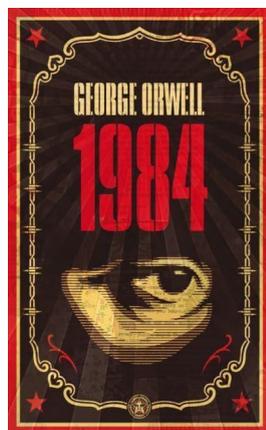
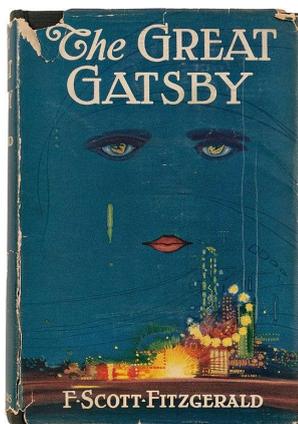
While reading, think about how the story is told in terms of narrative voice, structure and viewpoint.

Besides these texts, read and experience as much literature as you can.

- Find out about contemporary poets and read them.
- Extend your GCSE reading: try more Dickens, more Austen.
- Experience some theatre: now the theatres are open again, there are so many opportunities for live theatre in London.

We look forward to hearing about what you have been reading when we meet you in September.

If you have any questions, feel free to email Ms Fearnside: [afearnside@csg.school](mailto:afearnside@csg.school).



# French

In French, we are currently following the Edexcel exam board.

What we cover (film/book subject to change):

- Four themes (see below)
- A film in Year 12 ([Les 400 coups](#) 1959 by François Truffaut)
- A novel in Year 13 ([Un sac de billes](#) by Joseph Joffo)

What to do to prepare for A Level French:

- Go over your GCSE grammar, especially tenses and verb endings: present, perfect, imperfect, near future, simple future, conditional regular and irregular verbs. You will be given a grammar test at the start of the course so that we can assess your grammatical understanding.
- Read in French - magazines (*Elle, Grazia, Phosphore, Le Point*), newspapers (*Le Monde, Libération, 20 minutes*), websites (try [yahoo.fr](#))
- Watch French movies (French new wave, [Intouchables](#) (2011), [La haine](#) (1995))
- Listen to French/francophone music (check French charts, Spotify, music festivals) and Podcasts ([Learn French by Podcast](#) is a good current affairs one)
- Keep up to date with French current affairs

## Thème 1: **Les changements dans la société française**

*Set in the context of France only. This theme covers social issues and trends.*

- Changes in family structures
- Education
- World of work

## Thème 2: **La culture politique et artistique dans les pays francophones**

*Set in the context of francophone countries and communities. This theme covers political and artistic culture.*

- Music
- Media
- Festivals and traditions

## Thème 3: **L'immigration et la société multiculturelle française**

*Set in the context of France only. This theme covers social issues and trends.*

- Positive impact of immigration
- Challenges of immigration and integration
- The far-right

## Thème 4: **L'Occupation et la Résistance**

*Set in the context of France only. This theme covers political culture.*

- Occupied France
- The Vichy regime
- The Resistance

If you have any questions, feel free to email Ms Benzina: [hbenzina@csg.school](mailto:hbenzina@csg.school).

# Geography

There are three examinations in Geography plus a 3000 word piece of coursework:

## Paper 1: **Physical Geography**

- Tectonic Processes & Hazards
- Landscape Systems, Process & Change
- The Water Cycle & Water Insecurity
- The Carbon Cycle & Energy Security

## Paper 2: **Human Geography**

- Globalisation
- Diverse Places
- Superpowers
- Migration, Identity, and Sovereignty

## Paper 3: **Synoptic Investigation**

The synoptic investigation will be based on a geographical issue about a named case location rooted in two or more of the compulsory content areas from papers 1 or 2.

## **Fieldwork**

Fieldwork is a compulsory component of the geography course. It has a number of functions but, in particular, supports learning of the Physical Geography Paper. We have a residential field trip to East Sussex (cost approximately £90) and additional fieldwork in the Borough of Camden.

## **Summer task**

We'd like you to do three things:

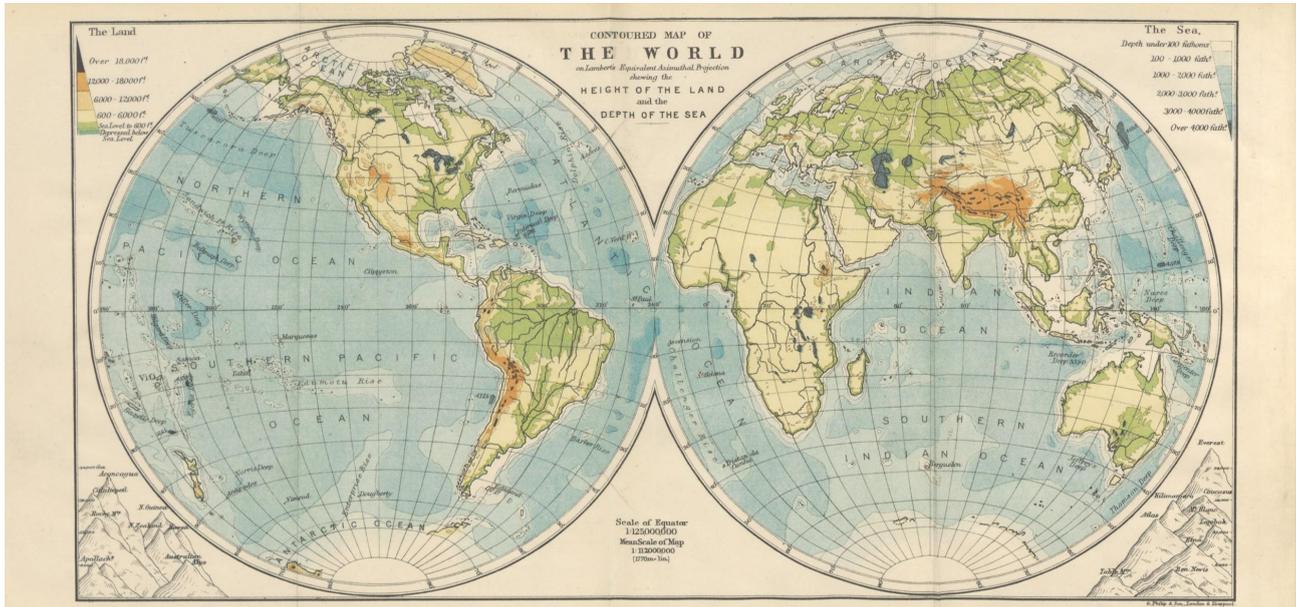
1. Make sure you can confidently find the following places on a world map:

USA	Nigeria	Nepal	Greece	Israel
Canada	Mali	China	Greenland	India
Mexico	Egypt	Japan	Bulgaria	Bangladesh
Brazil	Burkina-Faso	Philippines	Ukraine	Kiribati
Bolivia	Rwanda	Singapore	South Africa	Antarctica
UK	Kenya	South Korea	Kuwait	Atlantic Ocean
Germany	Mozambique	North Korea	Syria	Pacific Ocean
France	Saudi Arabia	Indonesia	New Zealand	Indian Ocean
Spain	Tropic of Cancer	Australia	Italy	Iraq
Russia	Tropic of Capricorn	Iran	Sri Lanka	Maldives

2. Get hold of a copy of a book called *Prisoners of Geography* or *The Power of Geography*, by Tim Marshall. Read the chapters on Russia, The Middle East, Africa, and The Arctic.

3. Using the free [Seneca website](#), we would like you to revise the **Tectonics** and **Coastal** topics of the GCSE AQA course and look for the *standardised assessments* on: Natural hazards, Tectonic hazards and UK coastal landscapes. You need to be able to score at least 90% on these tests.

If you have any questions, feel free to email Mr Evans: [mevans@csg.school](mailto:mevans@csg.school).



# Government and Politics

- Being a successful student means being up to date with current affairs. You should get into the habit of finding your way round a newspaper – preferably a broadsheet (e.g. *The Times*, *The Independent*, *The Guardian* and current affairs magazines such as *Prospect*, *The Economist*, *New Statesman*, *The Spectator*).
- You should identify and read: editorials/comment, news – domestic and international, letters and cartoons.
- Watch political programmes on television (e.g. Channel 4, *Newsnight* and *Question Time*).
- Listen to political podcasts (e.g. [Guardian Politics Weekly](#) and [New Statesman](#) are available on Spotify).

If you have any questions, feel free to email Ms Ellis: [lellis@csg.school](mailto:lellis@csg.school).



# Greek (Classical)

Welcome to Classical Greek AS Level (OCR) and congratulations on choosing an excellent subject to study! The subject will develop your understanding of the world of the Greeks through developing your understanding of the language and providing you with direct access to some of the most powerful literature in history.

We'd like you to make sure you complete the following tasks before September:

1. We will be using John Taylor's [Greek Beyond GCSE](#) as our language reference text. **Buy a copy** of the 2017 edition of the text - there are new and secondhand versions available online.
2. Over the summer, keep up your **GCSE Greek vocabulary** using Memrise or Quizlet, and if there are any elements of grammar that you are stuck on from GCSE, have a go at reading the relevant part of John Taylor.
3. Use either the GCSE or the Beyond GCSE John Taylor textbook to revise the following linguistic features which you have met at GCSE: **you will be tested on them during the first week of lessons:**

- Nouns: all standard types of all 5 declensions
- Verbs:
  - present, future, imperfect and aorist tenses (all persons, singular and plural), in the active, middle and passive voices
  - second person imperatives, present and aorist (singular and plural)
  - present, future and aorist participles (all genders and cases, singular and plural)
  - infinitives, in the active, middle and passive voices
- Nouns
  - The article
  - all cases, singular and plural, of the nouns of the following types: χώρα, θάλασσα, φωνή, πολίτης, νεανίας, ἵππος, ἔργον, φύλαξ, βασιλεύς, πόλις, σῶμα, τεῖχος

4. **Translate** the first AS Level practice passage on p. 125 of Taylor's Greek Beyond GCSE and bring it to the first lesson.
5. In September your set texts will be:
  - Verse: [Homer's Iliad](#), selections from Book 16 (free version online [here](#))
  - Prose: [Herodotus' Histories](#), selections from Book 1 (free version online [here](#))

Arguably, all later Western literature responds in some way to these texts! These authors are both fundamentally significant to the western literary and historical worlds, with Homer's Iliad at the earliest core of the Western literary tradition, and Herodotus known as 'father of history'. They provide an insightful view into Greek life and customs from the Archaic and Classical periods, and are fascinating reads.

- **Research** each of these authors and their works using the internet or the introductions to the books linked above.

*N.B: please contact us before the Summer holidays if you need support in purchasing these books, especially if you have been in receipt of Free School Meals.*

To fuel your wider knowledge about and interest in the Classical World:

- Subscribe to [Natalie Haynes Stands Up For The Classics](#) - or purchase the last seasons on Audible - excellent podcasts about the most interesting historical and literary characters in Classics.
- Subscribe to the BBC Radio 4 In Our Time podcast and listen to a few of the Classical episodes which catch your eye:
  - [Greek episodes](#)
  - [Roman episodes](#)

Enjoy! If you have any questions, feel free to email Ms Maguire: [hmaguire@csg.school](mailto:hmaguire@csg.school).



# History

In September you will be studying Edexcel's paper 'Revolutions in early modern and modern Europe'.

- Paper 1 - Britain, 1625-1701: conflict, revolution and settlement
- Paper 2 - France in Revolution 1774-99

## **Britain, 1625-1701: conflict, revolution and settlement**

In this breadth study we learn about the failure of monarchical government and republican rule in Britain in the 17th century, set within the context of broader social, economic and religious change.

During the summer period carry out some initial reading on this topic, as it may initially seem very complex.

- [Stuart Britain: A Very Short Introduction](#) by John Morrill is a very concise and readable place to start.
- A good overview book is M. Kishlansky's [The Penguin History of Britain: A Monarchy Transformed, Britain 1630-1714](#), which is good for building up your contextual knowledge of the period.
- You can also listen to the [Revolutions](#) podcast series on this period.

## **The French Revolution**

This is a study in depth of the causes and course of the French Revolution, 1774–1799. A tumultuous period of change for the French people as they evolved from subjects to citizens in a maelstrom of revolutionary activity, war and constitutional experiment, and one that would inspire revolutionary movements around the world. Students will gain an in-depth understanding of the causes and onset of revolutionary activity in France, and the subsequent political, social and economic changes.

- [The French Revolution: A Very Short Introduction](#) by Cowie and Doyle - is a good start.
- [Liberty or Death: The French Revolution](#) by P. McPhee provides an arresting narrative account of the period.
- Mark Steel, the comedian, has written an amusing but thought provoking book called [Vive La Revolution](#).
- [A Place of Greater Safety](#), is a historical-fiction novel of the French Revolution from the double Man Booker prize-winner, Hilary Mantel.
- A more complicated but famous book is [Citizens: A Chronicle of The French Revolution](#) by S. Schama.

Besides the texts and the topics for study above, read and experience as much history as you can.

Podcasts series such as the 'History Extra' series from the BBC, 'The Rest is History' or the more comedic, 'Your dead to me' podcast series, are a great way to broaden your historical knowledge and understanding of history.

If you have any questions, feel free to email Ms Wroe: ewroe@csg.school.

# History of Art

This course develops students' understanding of relationships in art and architecture between: society and art; art historical terms, concepts and issues; cultural, social and political factors; developments in materials, techniques and processes. The subject content is divided into three areas:

- **Visual analysis:** Painting, sculpture and architecture
- **Themes:** Nature in art and architecture; Identities in art and architecture
- **Periods:** Invention and illusion: the Renaissance in Italy (1420–1520); Pop life: British and American Contemporary art and architecture (1960–2015)

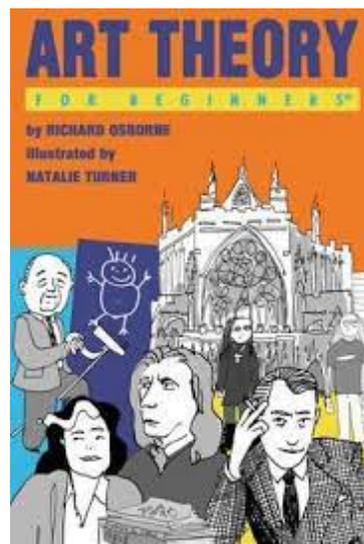
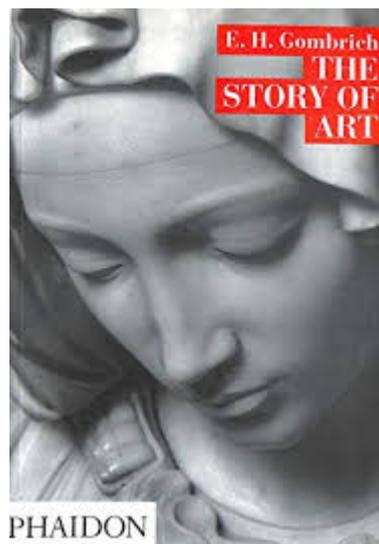
## Research Tasks

- Visit at least one major art exhibition and one public collection in person. During the visit choose a piece of work and make a sketch of the work's main elements, describe how it makes you feel and why. If possible, print an image of the work to hand in with your text in the first week of term.
- Watch an episode of either [Civilisations](#) (2018), [Great Artists](#) (2001), [Shock of the New](#) (1980), [Ways of Seeing](#) (1972), [Civilisation](#) (1969). Write a response/summary of the episode of 200 words minimum.

Read to familiarise yourself with the broad sweep of art history, any of the following:

- [The Story of Art](#) by E.H. Gombrich
- [Art Theory for Beginners](#) by R. Osborne
- [Art History: The Basics](#) by D. Newall
- [An Introduction to Art](#) by C. Harrison
- [A World History of Art](#) by H. Honour & J. Fleming
- [An Outline of European Architecture](#) by N. Pevsner
- [The Shock of the New](#) by R. Hughes

If you have any questions, feel free to email Mr Aronsohn: [daronsohn@csg.school](mailto:daronsohn@csg.school)



# Latin

Welcome to Latin A Level and congratulations on choosing an excellent subject to study! Latin introduces you to the world of the Romans through developing your understanding of the Latin language and providing you with access to some of the most powerful literature in history. From rhetorical legal speeches which change the course of history, to historical writing itself; from the grandest epic verse to tongue-in-cheek love poems, there's something here for everyone.

## Literature

Next year your set texts from the OCR prescription will be:

- Verse Literature: [Virgil's Aeneid: Book 2](#)
  - Full English text of the Aeneid [here](#); OR use the free online version available [here](#)
- Prose Literature: [Cicero: pro Caelio](#)
- Verse Unseen author: Ovid
- Prose Unseen author: Livy

These authors cover a wide range of genre and style in Latin literature, and provide a brilliant and varied insight into Roman life in the 1st Centuries BC and AD.

1. **Buy** the linked books above (for Virgil and Cicero) and **read the introductions. Make notes, or create a mind map** for each text which covers the key information about the author, the context and the story.
2. **Research** all four of these authors and their works further online. If you would like to get ahead and read more in translation, Ovid is an excellent place to start: translations are available online. The Amores are great for [witty love poems](#), and the [Metamorphoses](#) if you prefer mythology.

## Language

1. **Buy** the following books - cheaper secondhand as well as new copies are available online or at the Hellenic Book Service
  - John Taylor's [Latin Beyond GCSE](#): you will use this as a reference book to work on your language throughout the course.
  - [Prose Unseens for A Level Latin](#) by Mathew Owen
  - [Ovid Unseens](#) by Mathew Owen

*N.B: please contact us before the Summer holidays if you need support in purchasing these books, especially if you have been in receipt of Free School Meals.*

2. Over the summer, keep up your **GCSE Latin vocabulary** using Memrise or Quizlet, and if there are any elements of grammar that you are stuck on from GCSE, have a go at reading the relevant parts of John Taylor.
3. Use either the John Taylor textbook or your Latin exercise books and worksheets from GCSE to revise the following linguistic features: **you will be tested on them during the first week of lessons:**

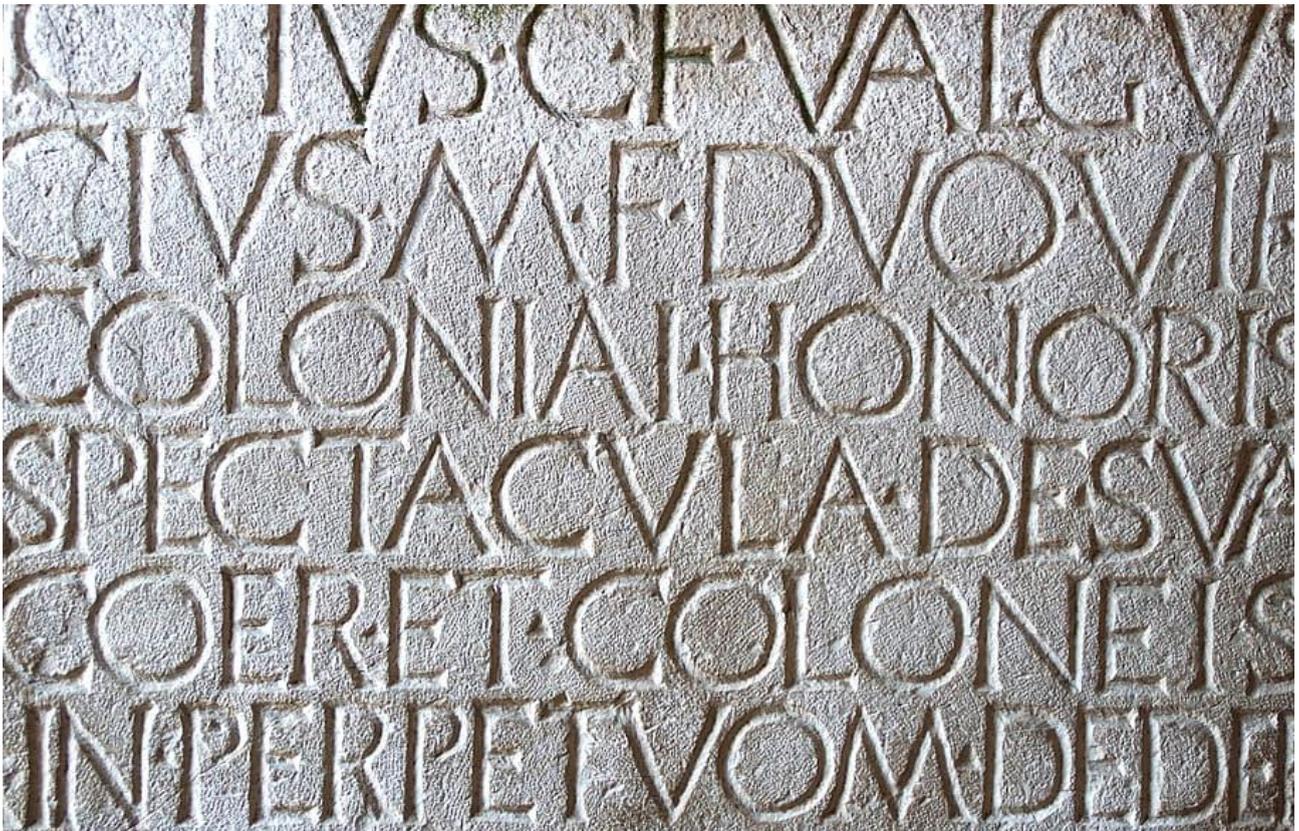
- Nouns: all standard types of all 5 declensions
- Verbs:
  - present, future, imperfect, perfect and pluperfect active
  - present, imperfect and perfect passive (3rd person singular and plural)
  - imperfect and pluperfect subjunctive active
- Participles: present and perfect

4. **Translate** the first passage from Mathew Owen's Prose Unseens book and bring it to the first lesson. An electronic version is linked [here](#).

5. To fuel your wider knowledge about and interest in the Classical World:

- Subscribe to [Natalie Haynes Stands Up For The Classics](#) - or purchase the last seasons on Audible - excellent podcasts about the most interesting historical and literary characters in Classics.
- Subscribe to the BBC Radio 4 In Our Time podcast and listen to a few of the Classical episodes which catch your eye:
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  - ii. [Roman episodes](#)

Enjoy! We're looking forward to seeing you in September. If you have any questions, feel free to get in touch with Ms Maguire: [hmaguire@csg.school](mailto:hmaguire@csg.school).



# Mathematics and Further Maths

A Level Mathematics assumes a familiarity with techniques learnt at GCSE. To progress through this course, it is vital to ensure that you are fully confident in the following techniques:

- manipulation & arithmetic of fractions
- laws of indices
- elementary algebra including multiplying out brackets
- factorising & rearranging formulae, including quadratics
- solving simultaneous & equations
- the equation of a straight line
- Pythagoras' theorem & trigonometry

Any GCSE Higher Tier textbook would provide examples and practice questions or obtain a copy of [New Head Start to A Level Maths](#) from CGP, the Kindle version is currently free and can be read on most devices.

Those students considering Mathematics or a related discipline at university should begin to read around the subject. There are a number of interesting and accessible books such as [Fermat's Last Theorem](#) by S. Singh and [The Man Who Loved Only Numbers](#) by P. Hoffman. Something more challenging is Marcus du Sautoy's [The Music of the Primes](#) but it does offer a picture of the world of professional mathematics.

**ALL STUDENTS MUST COMPLETE THE 'ARE YOU READY FOR A LEVEL MATHS?' TEST & bring this to your first maths lesson.**

## **ARE YOU READY FOR A LEVEL MATHS?**

This test covers the key skills from GCSE that you'll need in A Level maths.

Do this test in exam conditions without looking at the answers, **write your answers on paper**, then mark it using a different coloured pen, using the answers on the following page. Write out corrections to any questions you got wrong & make sure you now understand how to do them.

Next, we **strongly recommend** that you spend some time revising any topics where you lost marks using [Corbett Maths](#) or similar. All the topic names are highlighted with the answers, and if you click on the link it will take you to a relevant exercise to practise that topic (you will need to access the electronic version to use the links). You could then have another go at the test to check that you can now do any questions you lost marks on.

**Time: 1 hour. Calculator allowed.**

1) Evaluate the following:

a)  $\left(\frac{1}{27}\right)^{-\frac{1}{3}}$                       b)  $\left(\frac{64}{25}\right)^{\frac{3}{2}}$

2) Write these in the form of  $ax^n + bx^m$ :

a)  $\frac{\sqrt{16x^2} - \sqrt[3]{27x^2}}{\sqrt{x}}$                       b)  $\frac{5x^3 + \sqrt[4]{81x^2}}{3x}$

3) Solve the following equation for x:

$$2x^{-\frac{3}{2}} = 54$$

4) Write the following as a simplified, single fraction

a)  $\frac{4}{x-2} - \frac{2x}{x+1}$       b)  $\frac{x}{x^2-1} + \frac{3}{x+1}$

5) By rationalising the denominator, write the below in the form  $c + a\sqrt{b}$ :

$$\frac{2}{\sqrt{3}+1}$$

6) Expand the following brackets and collect like-terms:

$$(2x + 3)(3x - 1)(x + 2)$$

7) Fully factorise the following:

a)  $(36 - 4x^2)$       b)  $3x^3 + 27x^2 + 60x$

8) Consider the quadratic  $x^2 - 4x - 12 = 0$ :

a) Write the value of the discriminant. What does this tell you about the number of solutions you should expect?

b) Solve the equation, finding values of  $x$  using:

i) Completing the square      ii) Factorisation      iii) The quadratic formula

9) Consider the points  $A(9, - 1)$  and  $B(- 2, - 3)$

a) Write down the gradient  $m$  of the line passing through these two points

b) Hence, find the equation of the line passing through  $A$  and  $B$  in the form  $ax + by + c = 0$  where  $a$ ,  $b$ , and  $c$  are integers

10) Find the mean, mode, median and upper and lower quartiles of:

4, 7, 1, 0, 13, 15, 90, 12, 7

11) Find the mean of the following:

Length of oak leaves (mm)	Frequency ( $f$ )
20 - 22	4
23 - 26	20
27 - 30	23
31 - 50	5

### Information for Year 12 Maths students from the Maths Department

In the second week of term you will take an Induction Test.

The topics to be tested are:

- Fractions – addition, subtraction, multiplication & division
- Rules of indices
- Surds – simplifying & rationalising the denominator
- Simultaneous equations – 2 linear & 1 linear/1 quadratic
- Factorising quadratics
- Solving quadratic equations by factorising, formula or completing the square.
- Transforming graphs – graph sketching

It is important that you have a good grasp of these topics before starting the Maths course in September.

### **INFORMATION ON CALCULATORS**

Your GCSE calculator will not be sufficient for A Level. You have a choice of calculator and our students are equally successful with either.

**CASIO FX-991EX** (£20-£25). This is not a graphical calculator but is very easy to use. We highly recommend this calculator. This one can be purchased through the school in September.

**CASIO FX-CG50** (£80- £100). This is a graphical calculator, useful if you are going to be studying Further Maths and/or considering a degree involving Maths, Physics or Engineering.

If you have any questions, feel free to email Ms Geilinger: ggeilinger@csg.school.

### **Answers - remember you need to access the electronic version to follow the links for further practice**

Negative indices and fractional indices

1) a) 3                                      b)  $\frac{512}{125}$

Algebraic expressions and solutions

2) a)  $4x^{\frac{1}{2}} - 3x^{\frac{1}{6}}$                               b)  $\frac{5}{3}x^2 + x^{-\frac{1}{2}}$

Equations with indices

3)  $x = \frac{1}{9}$

Algebraic fractions

4) a)  $\frac{-2x^2+8x+4}{(x+1)(x-2)}$                               b)  $\frac{4x-3}{(x+1)(x-1)}$

Rationalising the denominator

5)  $-1 + \sqrt{3}$

Expanding brackets

6)  $6x^3 + 19x^2 + 11x - 6$

Difference of two squares and harder factorising - Worksheet E Q4 (this document also includes practice on a range of the topics covered here - but also some topics that you can ignore) - solutions

7) a)  $(6 - 2x)(6 + 2x)$                               b)  $3x(x + 5)(x + 4)$

Discriminant - Worksheet G Q6 - solutions, completing the square, factorising quadratics, quadratic formula

8) a)  $b^2 - 4ac = 64$ , 2 distinct real solutions      b) all 3 versions should give  $x = 6$ ,  $x = -2$

Equation of a line

9) a)  $m = \frac{2}{11}$                                       b)  $2x - 11y - 29 = 0$

Mode, median, mean and quartiles from a list (exercise 1)

10) mode = 7, mean = 16.6,  $Q_1 = 2.5$ ,  $Q_2 = 7$ ,  $Q_3 = 14$

Mean from grouped frequency table

11)  $\bar{x} = 27.5$

If you have any questions, feel free to email Ms Pinder: jpinder@csg.school.

# Music

The best preparation for your A Level Music course is to listen to as much music as you can: live, on the radio, television and internet, downloaded or on CD, LP etc... Try in particular to listen to some pieces, styles, composers, bands, etc. that are new to you.

You will also, of course, be developing as a performer. In order for us to gain a fuller sense of your talents, we will be holding an informal concert within the first few weeks of term. **Please ensure that you have a piece prepared for the instrument/voice that you will perform on for your A Level performance exam.** It would be preferable if you chose a piece that you are very comfortable performing rather than worrying about what level or grade it should be. We just want to hear you perform! You should be prepared to tell us what the piece is (and provide an accompaniment if applicable) in your first music lesson.

You will be continuing to develop your understanding of musical language through coursework and examined components. In order to prepare for this element of the course we recommend purchasing the ABRSM Grade 5 theory workbook [Music Theory in Practice](#) to ensure you get an idea of the level required. There are also useful exercises to practise your skills at [musictheory.net/exercises](http://musictheory.net/exercises). Those of you who have not already completed Grade 5 theory may find this aspect of the A Level challenging and it would be a good idea to work on this before September.

You will be studying a number of areas of music over the two year course. These include:

## **The Instrumental Music of Haydn, Mozart & Beethoven**

### **Popular Song - Blues, Jazz, Swing and Big Band**

### **Religious Music of the Baroque**

### **Innovations in Music - 1900 to the present day**

The set works for the first two areas of study are:

- *Haydn: Symphony No. 103 in E flat major, 'Drum Roll'*
- *Cécile McLorin Salvant: For One To Love*

Make sure that you familiarise yourself with these pieces, and also explore others by the same composers and their contemporaries.

After you have heard the music, make sure you find out more about these artists, their lives and their contribution to the development of music. The internet is a good source of information and we are not too snobby to ask you to simply read the relevant Wikipedia entries on these artists!

Very useful books for all the Areas of Study include:

- Paul Griffiths - [A Concise History of Western Music](#)
- Fiona Maddocks - [Twentieth Century Classical Music](#)
- Berendt and Huesmann - [The Jazz Book](#)

Visit the BBC's [Discovering Music](#) site. Each episode analyses a particular piece of classical music and there are hundreds of past programmes archived. Well worth listening to!

Finally – do use free podcasts to supplement your listening. In particular, BBC Radio 3's [Composer of the Week](#) and [Jazz Library](#) series will be of relevance and are available free from any podcast provider. Enjoy listening!

If you have any questions, feel free to email Ms Gordon: [egordon@csg.school](mailto:egordon@csg.school).



# Philosophy

For those of you who have never studied or even encountered philosophy before, a good way of getting an overview of the history of ideas would be to read [Sophie's World](#) by J. Gaardner, which gives a good overview of some of the key thinkers in the history of philosophy. Other, similar, books would include:



- [Think](#) by S. Blackburn
- [Philosophy for Beginners](#) by R. Osbourne
- [The Philosophy Gym](#) by S. Law
- [A History of Western Philosophy](#) by Bertrand Russell
- [The Elegance of a Hedgehog](#) by M. Barbery

The key questions of philosophy - what do we know to be true? What is the most just way of organising society? How should we try to be good? - remain as pressing as ever. Many contemporary philosophers and thinkers have a presence on YouTube and on social media. You can even access their lectures and public appearances. Look up and watch some videos by the following people: Slavoj Zizek, Jordan Peterson, Judith Butler, Cornell West. You are free to agree or disagree with their ideas!

Some of the best Youtube channels that deal with Philosophy and philosophical ideas include:

[The School of Life](#): has a syllabus of videos on the great philosophers. Each video is about ten minutes long. Try to complete this syllabus before September?

[Philosophy Tube](#): Abigail Thorn is a master in exploring philosophy in a highly original way. Check her out.

[Alex O'Conner/Cosmic Sceptic](#): This young graduate of Theology from Oxford has hit the big time with his Youtube channel- he debates God's existence, veganism, and a whole range of other issues. It's great, check it out.

To prepare yourself for your second year philosophy course it would be good to read:

- [Philosophy of Mind: The Basics](#) by Amy Kind
- [Philosophy of Mind: A Beginner's Guide](#) by I. Ravenscroft
- [Meditations](#) by R. Descartes
- [The Republic](#) by Plato (Penguin version)
- [Being Good: A short introduction to Ethics](#) by S. Blackburn
- [The Nicomachean Ethics](#) by Aristotle

If you have any questions, feel free to email Mr O'Connell: moconnell@csg.school.

# Photography

To commence A Level studies I expect you to read at least **one** of the books on the essential reading list as a foundation to the subject.

All students of Photography will have to purchase their own materials (i.e. darkroom photographic paper/film and inkjet paper) as well as a contribution to ink costs when using the digital suite (ink costs are per term and are currently set at £15). It will be necessary to have a 35mm SLR camera (second hand is ideal and can be bought for a **minimum** of £40).

An overseas trip also takes place in collaboration with the Art Department, the destination has yet to be agreed. In the past we have visited Barcelona, Berlin, New York and Amsterdam. I look forward to meeting you in September.

Essential Reading:

- [The Photograph as Contemporary Art](#) by Charlotte Cotton
- [The Ongoing Moment](#) by Geoff Dyer
- [Understanding a Photograph](#) by John Berger

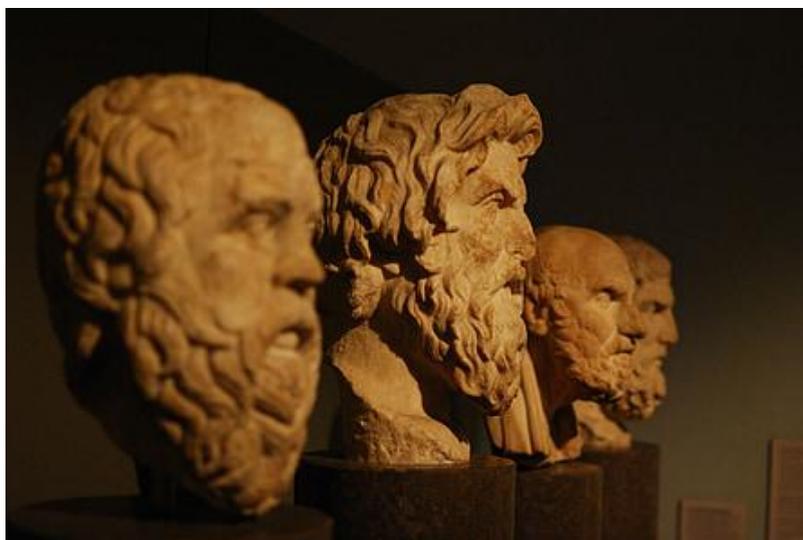
Look at the following websites:

- [Magnum Photos](#)
- [AINT-BAD](#)
- [LensCulture](#)
- [British Journal of Photography](#)

Visit any of the following

- The Photographers Gallery
- The Centre for British Photography
- The Victoria and Albert/ Canon Gallery
- Tate Modern

If you have any questions, feel free to email Ms Miller: [dmiller@csg.school](mailto:dmiller@csg.school).



# Physics

To prepare yourself for A Level Physics, you need to practise your maths skills.

Your assignment is to complete the [Introductory Maths Unit for Year 12 Physics](#) which needs to be downloaded and printed out from the Physics section of the course descriptions on the sixth form website.

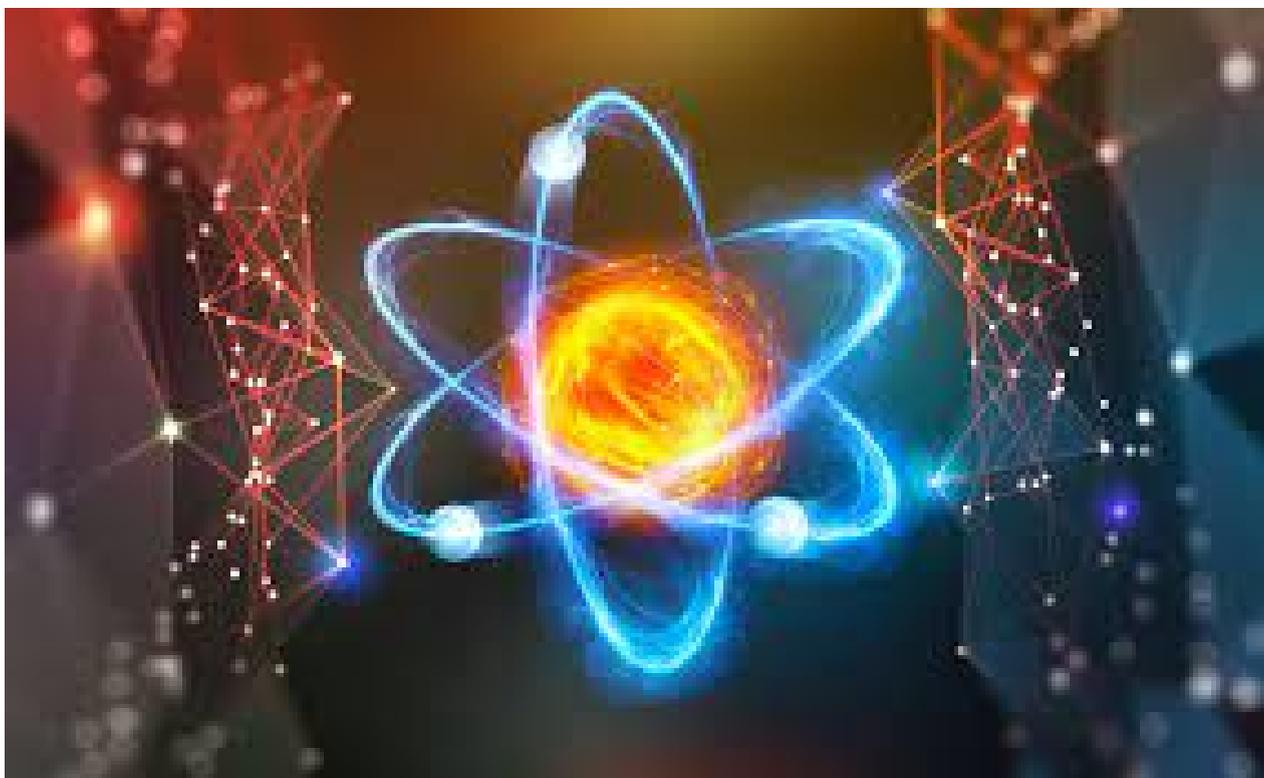
You must show your working out.

**You must bring the completed booklet to your first physics lesson.**

We also recommend you read a couple of the following books. You will be asked to write a review about one of these over the first half term.

- [Philosophy of Science: Very Short Introduction](#) by S. Okasha
- [The Fabric of Reality: Towards a Theory of Everything](#) by D. Deutsch
- [Science: A History](#) by J. Gribbin
- [Quantum Theory Cannot Hurt You](#) or [We Need to Talk About Kelvin](#) by M. Chown
- [Fear Of Physics: A Guide For The Perplexed](#) by L. M. Krauss
- [Six Easy Pieces](#) by R. Feynman
- [In Search of Schrödinger's Cat](#) by J. Gribbin

If you have any questions, feel free to email Mr Harvey: [jharvey@csg.school](mailto:jharvey@csg.school).



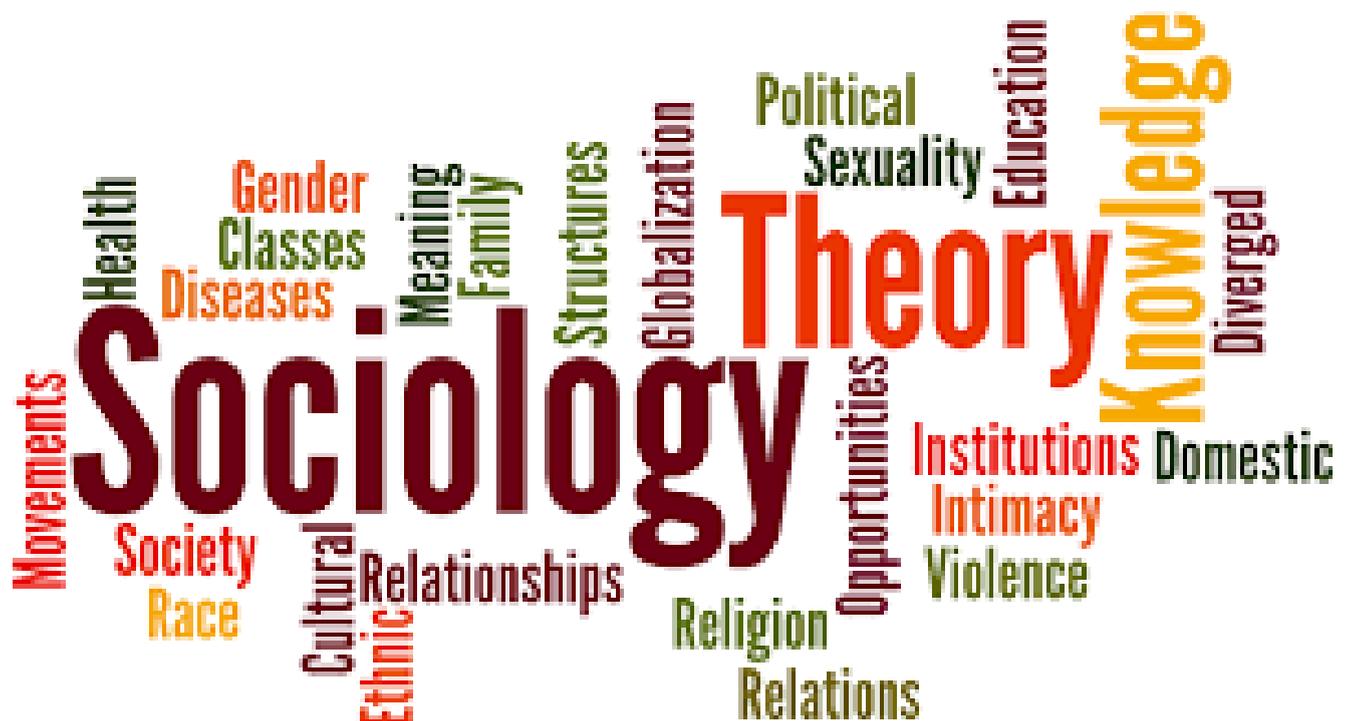
# Sociology

Welcome to Sociology. Across the next two years, you will be studying topics that include the social construction of identity; inequality in society; explanations of crime and deviance and youth subcultures.

You can start thinking about the many social issues we will be discussing over the year by keeping up with current affairs through reading or watching the news. Read a serious newspaper regularly online: The centre-left newspaper, *The Guardian*, gives the best coverage of social issues, while *The Times* and *The Daily Telegraph* support the Conservative approach to social, political and economic policies. The Guardian, for example, has an inequality section that can be found [here](#).

In addition to the news, you could read [Natives](#) by Akala or [Chavs](#) by Owen Jones, which discuss some of the key issues we will be covering in the A Level or explore some great podcasts on a range of sociological issues. We recommend, the 'Thinking Allowed' BBC podcast series hosted by a former Professor of Sociology or 'The Sociology Show' podcast series, created for A level Sociology students.

If you have any questions, feel free to email Ms Wroe: [ewroe@csg.school](mailto:ewroe@csg.school).



# Spanish

In Spanish, we are currently following the Edexcel exam board.

Four themes (see below):

- A film in Year 12 ([Todo sobre mi madre](#) (1999) by Pedro Almodóvar)
- A novel in Year 13 ([La casa de Bernarda Alba](#) by Federico García Lorca)

What to do to prepare for A Level Spanish:

- Go over your GCSE grammar, especially tenses and verb endings. You will be given a grammar test at the start of the course so that we can assess your grammatical understanding.
- Join our Spanish GCSE to A Level [Google Classroom](#) (email Ms Garcia for an invite)
- Read in Spanish - magazines & newspapers *El Mundo*, *Mia*, *Glamour*, *Marie Claire*
- Websites (try [yahoo.es](#))
- Watch Spanish movies (check *Time Out* as many films are available on DVD e.g. [Volver](#) (2006), [Pan's Labyrinth](#) (2006), [La Zona](#) (2007), [Sin nombre](#) (2009), [The Secret in Their Eyes](#) (2009), etc.)
- Listen to Spanish music (check Spanish charts, Spotify, music festivals) and podcasts
- Keep up to date with Spanish current affairs

## Tema 1: **La evolución de la sociedad española**

*This theme covers social issues and trends.*

- Changes in family structures
- Education
- World of work

## Tema 2: **La cultura en el mundo de habla española**

*This theme covers political and artistic culture.*

- Music
- Media
- Festivals and traditions

## Tema 3: **La inmigración y la sociedad multicultural española**

*This theme covers social issues and trends.*

- Positive impact of immigration
- Challenges of immigration and integration
- Social and public reaction to immigration

## Tema 4: **La dictadura franquista y la transición a la democracia**

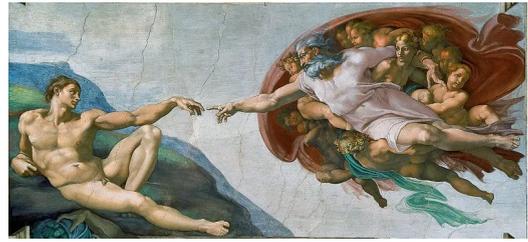
*This theme covers political culture.*

- Civil war
- Francisco Franco
- From dictatorship to democracy

If you have any questions, feel free to email Ms Benzina, [hbenzina@csg.school](mailto:hbenzina@csg.school), and/or Ms Garcia, [mgarcia@csg.school](mailto:mgarcia@csg.school).

# Theology

Your Theology A Level (also known as Religious Studies) is [OCR](#) and will be divided into three strands: Christian Theology, Ethics and Philosophy of Religion. Each of these different strands is fascinating and requires a different way of thinking.



At the very least, in preparation for the start of your A Level, you should be familiar with:

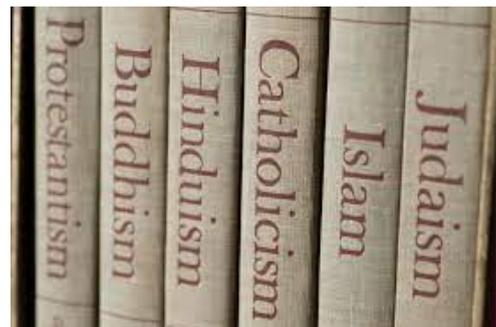
- An overview of the history of philosophy, starting with the ancient Greeks (Socrates, Plato and Aristotle), the rise of Christianity, the middle ages, the Reformation, the Enlightenment, and modern trends.
- An understanding of what the purpose of philosophy is.
- An understanding of ethics as the science of making good moral decisions. You should be starting to think theoretically about how human beings decide what is right and what is wrong.
- A basic overview of the structure of the Bible, how Christianity came from Judaism, what Christians believe about the person of Jesus and the nature of the Christian Church today.

How will I be able to do this?

- [Very Short Introductions](#) offer short texts on virtually all of the above ideas, movements and philosophers/theologians.
- In addition, David Ford's [Very Short Introduction to Theology](#) would be a great start to exploring the Christian Theology part of the course
- [The School of Life](#): has a syllabus of videos on the great philosophers. Each video is about ten minutes long. Try to complete this syllabus before September?
- [Alex O'Conner/Cosmic Sceptic](#): This young graduate of Theology from Oxford has hit the big time with his Youtube channel- he debates God's existence, veganism, and a whole range of other issues. It's great, check it out.
- [Philosophy Tube](#): Abigail Thorn is a master in exploring philosophy in a highly original way. Check her out.

Come to class in September knowing something about the life and thought of the following philosophers:

- Plato
- Aristotle
- Augustine of Hippo
- Thomas Aquinas
- Rene Descartes
- Immanuel Kant
- John Stuart Mill
- Karl Marx
- John Paul Sartre
- Peter Singer
- Richard Dawkins



If you have any questions, feel free to email Mr O'Connell: [moconnell@csg.school](mailto:moconnell@csg.school).