



# *Curriculum Guide*

*Key Stage 4*

*Years 9 - 11*

*September 2024-2025*

*Mr G Fairchild (Assistant Head)*

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# Introduction

Our purpose in giving you choice of subjects at the end of Year 8 is to allow you to spend 3 years studying a broad programme of subjects in great depth. Making these options choices now allows us to reduce your class sizes, to offer you new programmes of study, to give you further time for character education through your Floreat programme and to enable you to specialise in a range of subjects that most provoke your curiosity.

We offer a wide range of courses at Key Stage 4 (GCSE) ensuring that there is an excellent quality of curriculum provision. The subjects we offer are intended to ensure that you acquire a breadth of knowledge and skills that are crucial in terms of future progression. It is therefore important for each Reading School pupil to choose a course programme that is balanced and meets their individual needs, rather than there being any singular 'best' combination.

A few years ago, all subjects across the country were radically overhauled. The old A\*-G grading system of your parents' era is no more, being replaced with the new 1-9 grading system. The new GCSE examinations are more difficult, and access to the top grades of 8 and 9 is more challenging than ever before. Your teachers are well-placed to enable you to achieve your potential.

The following information gives as much detail as possible about each of your courses, including the options available to you. Your final decision regarding options is required by the Easter holidays, and your option choices should be made via the online form, the link for which has been emailed with this guide. Please continue to discuss potential options with parents, form tutors, Careers Adviser and subject teachers and complete the Options Form online in consultation with your parents by **April 18<sup>th</sup> (date TBC)**.

We ask you to choose those subjects which you enjoy most, which inspire curiosity and present you with a healthy challenge. We recommend that you choose a programme that keeps your options open and broad, rather than narrowing too early. The **academic curriculum** is of crucial significance because of the very nature of Reading School as an academically selective school. However, the **character curriculum** is equally important in order to produce active, responsible citizens through the nurturing of integrity, citizenship, bodily/mental health and leadership.

During Years 9-11, you should continue with a broad and balanced range of new and existing co-curricular activities both within and beyond the school gates. Not only do these give you a well-deserved break from your academic studies, but they endow you with virtues such as determination and teamwork that, at Reading School, we believe to be equally as valuable for your future as academic results.

Good luck with all the adventures that lie ahead!



Mr G Fairchild  
Assistant Headteacher (Quality of Education)  
Reading School

T: 0118 9015600  
E: gfairchild@reading-school.co.uk

# The Reading Way – Graduate profile

The graduate profile below illustrates how the intent of the Reading Way is linked explicitly to the school values of Excellence, Integrity, Leadership and Community.

Via Redingensis	Our Graduates	Competencies
<b>Excellence</b>		
<p><b>KS3 Imaginative:</b> What is possible for me this year?</p> <p><b>KS4 Accountable:</b> What do I feel is expected of me this year?</p> <p><b>KS5 Inquisitive:</b> What more do I hope to do this year?</p>	<p>Men of excellence who aim high and develop the ambitions that enable dreams to be achieved. They strive to achieve the best they can in all they do through curiosity, perseverance, and reflection, while their feet remain firmly on the ground.</p>	<p>Reveal creativity and adaptability in exhibiting the competencies required to succeed in their global future</p> <p>Strive for achievement based on talent, ambition &amp; curiosity in the academic sphere, cultural endeavours &amp; sport</p> <p>Demonstrate sustained high performance accompanied by personal development such that academic excellence is married to well-being</p> <p>Understand the importance of aspiring to the very best</p> <p>Seek to hold themselves to account, and fulfil their potential for the benefit of others</p>
<b>Integrity</b>		
<p><b>KS3 Honest:</b> Who do I hope to become this year?</p> <p><b>KS4 Positive:</b> What do I hope to achieve through my opportunities this year?</p> <p><b>KS5 Courageous:</b> What is my mission this year?</p>	<p>Men of integrity who are authentic and earn respect. They are true to themselves, they put their heart and soul into everything, and they can be trusted to do the right thing.</p>	<p>Sustain a positive attitude throughout their endeavours</p> <p>Become champions of character and champions of change</p> <p>Demonstrate courage, self-discipline, and initiative</p> <p>Understand the importance of honesty</p> <p>Seek to align their actions, words and goals with our shared values</p>
<b>Leadership</b>		
<p><b>KS3 Collaborative:</b> How do I hope to fit in this year?</p> <p><b>KS4 Considerate:</b> How do I hope to care for others this year?</p> <p><b>KS5 Generous:</b> What can I give this year?</p>	<p>Men of leadership who collaborate for the common good and work to bring out the best in all of us. They show a spirit of commitment allied to a dynamic sense of purpose, and they are dedicated to working with and for others through teams and organisations.</p>	<p>Trust in and enhance each other's abilities and expertise</p> <p>Focus on continuous improvement</p> <p>Demonstrate accountability complemented by a sense of compassion and generosity of spirit</p> <p>Provide service that benefits the school, the community, and the world</p>
<b>Community</b>		
<p><b>KS3 Receptive:</b> What do I hope to learn about myself this year?</p> <p><b>KS4 Open:</b> How will I show that I'm willing to share big ideas this year?</p> <p><b>KS5 Outward Facing:</b> What lies beyond for me this year?</p>	<p>Men of community who build a local body with an international heart that nurtures social mobility, growth, and lifelong learning from the best possible sources of expertise and wisdom.</p>	<p>Develop their experiences beyond the frontiers of their own context</p> <p>Build a network of partnerships to drive best practice and develop deep pride in their school and broader community</p> <p>Demonstrate an outward-facing and international outlook and understand the need to be committed to learning from others</p>

# MAKING CHOICES

You should not immediately have a fixed idea of what you will choose, but instead consider different combinations. There is time for you to go through several iterations before settling on your final choices.

We aim to support you through this key process. Listening to advice is a vital part in the decision-making process and therefore you need to talk through your ideas with as many people as possible. If you are unsure about what choices to make, it is important to realise that help is available:

- Your Form Tutor or Head of House have gained valuable insight into your character and talents over the past 18 months. They would welcome being included in discussions about your direction.
- Mr Fairchild oversees the Curriculum and would be happy to discuss your queries.
- You can contact the School's Careers Adviser on [careers@reading-school.co.uk](mailto:careers@reading-school.co.uk) and Year 8s will have visits from older students during form time to give their perspective of the option subjects.

**Other than Medicine/Science/Engineering routes (all of which are covered by the Core Curriculum), there are very few careers for which you need to have studied specific subjects at A Level (and therefore at GCSE).**

Our Careers Adviser highlights a few things you might not have realised:

*"You don't have to be the best at **Art** to choose it for GCSE. If you enjoy Art, and you'll commit to working hard, the Art department will support you no matter what your individual ability. If you are keen on Architecture, Animation or Games Designing then you'll want to take Art for GCSE."*

*"The interpersonal skills developed through studying **Modern Foreign Languages** are crucial for effective communication in English, and give you the opportunity to study abroad at University. **Latin** teaches your mind to think in a way that lends itself to problem-solving."*

*"You do not have to be able to code to take GCSE **Computer Science**; just have a good appreciation of logic and a desire to extend your knowledge of technology and computer hardware/software."*

*"You don't need to choose **Economics** for GCSE in order to study it at A-Level! In fact, evidence suggests that students entering A-Level Economics with a wider range of skills from other subjects"*

*"**History** at GCSE is not simply remembering dates and writing long essays. It is a subject that develops your ability to argue, justify your views and analyse sources."*

*"**Drama** at GCSE isn't a 'soft' option. It's challenging intellectually and personally: you evaluate your own and others' performance skills: you work collaboratively to create your own play: you develop concise and clear writing skills: you learn to justify your own opinions."*

*"**Geography** at GCSE is not about remembering capital cities and flags. It is a facilitating subject that enriches other subjects, builds skills of evaluation and deepens your critical understanding of the world's big issues."*

*"With the UK Sports industry worth £20bn, the depth of anatomical and physiological knowledge gained in GCSE **PE** are an ideal stepping stone for a future in elite sports medicine, nutrition or sports psychology."*

*"You don't need to have reached a high grade on an instrument to study GCSE **Music**. The requirement for performance is that you have reached Grade 4 by Year 11, which is easily done. Love music? Continue!"*

Your time at Key Stage 4 (Years 9-11) will be made up of your Core Academic Curriculum, Core Character Curriculum and Options Academic Curriculum.

## ACADEMIC CURRICULUM: CORE

You will study ALL of these subjects as part of your core academic curriculum:

GCSE	English Language
GCSE	English Literature
GCSE	Mathematics*
GCSE	Biology
GCSE	Chemistry
GCSE	Physics
GCSE	Higher Project Qualification
AS	Religious Studies**
	Electives (Year 9 and 10)

*\*In order to develop students' thinking skills, they will be taught elements of the OCR freestanding 'Additional Mathematics' qualification. Those who are secure in their GCSE knowledge following their Year 11 mock examination who have also showed strengths in this extra content will also be entered for this exam. This is at the discretion of the School.*

*\*\*Students will either be entered for the AS in Religious Studies or a GCSE Entry Level Certificate in Religious Studies. This is entirely at the discretion of the Head of Theology & Philosophy and Senior Leadership Team.*

## CHARACTER CURRICULUM

At Reading School we recognise that each pupil has individual needs, abilities and potential. The PHSE programme aims to provide for each individual a broad spectrum of study, embracing academic, personal, social and moral elements. As well as individual classroom sessions, we invite a number of key speakers in throughout the year to assist with the delivery of the curriculum. Further information on specific topics studied can be found on the school website. **Sex and Relationships Education (SRE)** cover the emotional, social and physical aspects of growing up, relationships, sex, human sexuality and sexual health. It should equip students with the information, skills and values to have safe, fulfilling and enjoyable relationships and to take responsibility for their sexual health and well-being; **Child Protection and Safeguarding** issues are covered extensively throughout the PSHE programme at Reading School. As well as supporting students to consider future pathways through **Careers Education**, many areas of the SMSC (Social, Moral, Spiritual and Cultural) policy are also covered in the delivery of PSHE.

The aim of the Key Stage 4 **Physical Education and Sport Core Curriculum** is closely aligned with the core values of the school. The emphasis on Building Good People through Sport and Physical Education encourages Participation, Performance and Progress. In so doing, Head Coaches offer pupils opportunities to specialise in selected sports as well as to develop skills in new sports, all the while learning how to lead and take responsibility for their own healthy active lifestyles. Please contact either Mr S Allen or your current PE Teacher if you have any questions relating to the KS4 Physical Education Core Curriculum at Reading School.

The **Floreat** Programme aims to empower you, the student, to become a thinking leader. Through a bespoke mix of theoretical and applied practical lessons, you will have the opportunity to develop the 'soft' skills of communication, decision-making, teamwork and problem-solving that are crucial for continued success both within and beyond the classroom. The programme ties in perfectly with the school's values of Leadership, Integrity, Excellence and Community, whilst also beginning to consider the challenges of life beyond Reading School through collaboration with our international partner schools, local companies and community groups. This dedication of regular curriculum time is, as far as we know, unique within the UK state school sector and we believe that Floreat provides opportunities for you to develop and demonstrate what makes you unique. Please contact Mr Ben Miller if you have any questions relating to the Floreat programme.

**It is perfectly normal for you at this stage to be unsure of what career you wish to follow. What is important is that you consider what you are passionate about, and what you enjoy doing.**

# ACADEMIC CURRICULUM: OPTIONS

## KEY PRINCIPLES

### Do...

- Think carefully about the choices that keep a range of future options open.
- Choose subjects that you are interested in and in which you feel successful.
- Be realistic about your own strengths and weaknesses.
- Seek and follow advice from teachers, tutors, parents and other adults.
- Think about reserve subjects in case your first choice is not available.

### Do not...

- Do not choose a subject just because your friend has or you like the teacher.
- Do not fixate on post-GCSE requirements at the expense of enjoyment.
- Do not choose a subject because you think it is easy; every GCSE will be a challenge!
- Do not presume that your choice guarantees the subject. Some subjects may be undersubscribed or some options combinations may not be possible.

The English Baccalaureate is a compulsory element of the Key Stage Four Curriculum. It consists of English, Mathematics, History (Ancient or Modern) or Geography, the Sciences and a Language (Ancient or Modern). You will also study for an HPQ (Higher Project Qualification).

**You must choose FOUR of the following subjects.**

**At least one of which must be Ancient History, History or Geography.**

**At least one of which must be French, German, Latin, Mandarin or Spanish.**

## English Baccalaureate Subjects

GCSE Ancient History

GCSE Geography                      You must choose **at least** 1 subject from this group

GCSE History                         You are welcome and encouraged to choose more than one.

## Ancient and Modern Languages

GCSE French

GCSE German                        You must choose **at least** 1 subject from this group

GCSE Spanish                        You are welcome and encouraged to choose more than one.

GCSE Latin

GCSE Mandarin (requires student to be currently studying Mandarin or at an adequate standard)

## Other Options

GCSE Art and Design (Fine Art)

GCSE Art and Design (Photography)

GCSE Music

GCSE Economics                    You are welcome and encouraged to choose more than one from this group

GCSE Computer Science

GCSE Drama

GCSE PE

GCSE Electronics

Our online options form will also ask you to choose one reserve subject, in case the particular combination of subjects that most interests you is not possible.

In the event of over-subscription of one or more subjects, discussion between Heads of House and Heads of Department, availability of reserve choice and prior CPRO grades may all be considered. Please note that whilst we will do our best to offer you all the subjects of your choice, we cannot guarantee to do so. Staffing constraints and timetabling issues may require the "reserve choice" to be used.

# HOW CAN PARENTS HELP?

The support of parents, is most valuable in giving your son the confidence to make the right choices. That said, the final choices must be theirs rather than yours. If, however, you feel that your son is not yet ready to make these choices, then the 'Making Choices' section above points them in the direction of appropriate support.

You could perhaps consider the following points to guide discussion with your son:

## 1. Which subjects does your son enjoy?

- This is a good place to start as your son is more likely to succeed if he enjoys a subject. The subject will have changed dramatically since your time at school.

## 2. What are your son's interests?

- Discussions with your son about his passions and interests will help to make the right choices.

## 3. Does he have a pathway in mind?

- Your son should focus on the skills that potential pathways require, and therefore which subjects facilitate getting those skills, rather than fixating on one career.

## 4. For which subjects has your son shown an aptitude?

- Previous reports, feedback in his exercise book and discussions at parents' evening should indicate whether or not he is capable of keeping up with the rigours of each subject's GCSE course. Realistic and appropriate choices at this stage will reap dividends in Year 11.

## 5. Remember that your son is unique!

- What has worked for his elder sibling or for you might not be appropriate for him. Subjects and career pathways have changed since your time at school. His choices must be about what is right for him alone.

**The important thing is to keep your child's future options open by choosing a broad & balanced range of subjects at Key Stage 4.**

**Other than Medicine/Science/Engineering routes (all of which are covered by the Core Academic Curriculum), there are very few careers for which you need to have studied specific subjects at A Level (and therefore at GCSE).**

# Ancient History

## Aim

The Ancient History course has been designed to help learners develop their understanding of the ancient world and the legacy of the ancient world in today's society. Students will romp through the most exciting parts of Roman and Greek history, focusing on the key individuals and events that helped shape the ancient world.

Studying the ancient world gives us a unique means of discussion some really big questions: Is History inevitably written by the victors? How do you defeat a state that refuses to acknowledge defeat? How can societies enable multi-culturalism to work? Did Athens really invent democracy when less than 50% of their adult population could vote?

The course includes a phenomenal range of ancient cultures, politics, art and warfare.

## Purpose

Ancient History will enable learners to:

- Develop and extend their knowledge and understanding of all the major aspects of four key ancient civilisations: The Persians, Greeks, Carthaginians and the Romans. Students study military, political, religious, social and cultural history and explore key questions about how different cultures co-existed or clashed in the ancient world
- Develop the ability to ask relevant questions about the past, to investigate issues critically and to make valid historical claims by using a range of ancient sources in their historical context
- Understand that ancient historians today rely on fewer sources than are available for modern history, meaning that our version of events often relies on very scarce evidence
- Critically examine ancient sources and understand the resulting difficulties in reconstructing the history of the ancient world

## Cross-Curricular Connections

The skills developed are clearly aligned with History, but as this is a holistic study of the ancient world, elements of the course interact with Geography, History, Latin, Economics, Art History and English. Students learn to scavenge evidence from wherever they can, whether this is from ancient artwork, private letters, inventory lists or scientific analysis of archaeological evidence. As a result, Ancient History is one of the most interdisciplinary GCSEs on offer at Reading School. The logical analysis of evidence intersects with scientific and mathematical disciplines, whilst the extended writing elements of the course fit naturally with other humanities or social sciences such as Economics. Analytical, evaluative and discursive skills are all developed in this course.

## Independent Learning and Stretch and Challenge

- We aim to enrich all students' knowledge of the ancient world at the start of Year 9 by introducing them to attendance civilisations such as the Egyptians, Babylonians, Phoenicians and Sumerians.
- We also wish to briefly 'fill in the gaps' left by the specification in terms of what happened between the end of the Persian war and Alexander the Great's rise to power, and the major developments after 440 BCE before Hannibal comes on the scene.
- Students are also encouraged to read supplementary evidence such as original sources (e.g. Herodotus' Histories, Livy's account of the Roman kings and Hannibal's) as well as books by modern Historians such as Tom Holland's Persian Fire and Richard Miles' Carthage Must Be Destroyed.
- Year 10 and 11 students are encouraged to present at History club about a Classical topic of their choice in order to inspire KS3 students.

## Support

Revision sessions are available during year 11. Individual mentoring is available from older students on request for all students of GCSE Ancient History.

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## Curriculum Detail

The course is divided into two halves, a Greek paper and a Roman paper. Each course in turn has two sections to it, a period study, which will cover a variety of leaders and sometimes a different culture (e.g. Persian) and a depth study, which will focus in on the life of a certain individual (e.g. Alexander the Great).

The topic areas selected for this course range from the 8th century BC to the 3rd century BC and allow learners to study in detail four different societies.

### Period studies

#### The Persian Empire, 559–465 BC

Learners will explore the development of the Persian empire and how it was so effective at keeping disparate groups together. The Persian empire was a vibrant and highly cultured civilisation, so why are they depicted as uneducated barbarians by Greek sources?

**The foundations of Rome: from kingship to republic, 753–440 BC** will focus on the stories the Romans told about the origin of their city. This module allows students to ponder the question, where does mythology end and history begin?

### Depth studies

For the Greek depth study, we have chosen **Alexander the Great**. One of the most fascinating figures from ancient history, Alexander lived and died in turbulent times, but had arguably the greatest influence on the geo-political history of the ancient world. We try to establish the man behind the myth when so much of our evidence about him comes from much later writers.

For the Roman depth study, we study **Hannibal the Carthaginian** who is famous for his invasion of Rome over the Alps with his secret weapon of battle elephants. Opposed to him are two magnificent Roman generals, Fabius Maximus and Scipio Africanus, and an array of less than magnificent ones!

The combination of the different options on offer delivers a coherent and substantial Ancient History course, giving students an excellent foundation for further study in Classics.

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## Year 9 Skills and Knowledge

### Introduction to the ancient world

- A look at the development of civilisation, and the different cultures co-existing around the Mediterranean. In their first assignment, students adopt a civilisation, research its history and present their findings to the rest of the class.

### Cyrus the Great

- Can you conquer the world and still be a nice guy? Cyrus' revolutionary approach of multi-culturalism and religious toleration appears to pay dividends for his growing empire.

### Cambyses

- Some sources depict him as a heretical maniac who murders several members of his family, others show him to be a fair and just ruler. How do we establish the truth when the sources disagree so wildly? We look at developing evaluative skills by comparing and contrasting Cambyses and Cyrus' reigns.

### The Persian War

- We study key battles such as battle of Marathon, the heroic last stand of 300 Spartans at the battle of Thermopylae and the Athenians' naval brilliance at Salamis.

### Xerxes and his advisers

- Xerxes once whipped the sea for disobeying him. Was this a sign of delusion or a publicity stunt?

### Sources

- One of our key sources for all this is Herodotus, and we will read substantial parts of his account of these events in the first work of history conveniently names "The Histories". We develop our critical reading of sources as a result of this.

### Alexander the Great

- We then very quickly fly through the next 100 years and begin the Greek depth study looking at Alexander the Great, 356–323 BC.
- Alexander the Great made it his life's work to reverse the Persian invasion of Greece, deliberately taking the same path towards Persia that they had taken towards Greece! He saw himself as the avenger of the Greeks. In Year 9 we look at his upbringing and relationship with his father and how he came to power.

## Assessment

- Introduction and familiarisation with the specification's assessment objectives
- Self/peer assessed
- short answer questions to show understanding of the content studied
- Periodic pieces of extended writing to allow students to showcase their analysis and evaluation of the topics studied

## Year 10 Skills and Knowledge

### Alexander the Great

- Examining Alexander the Great's key battles, and the individuals who helped or hindered him (sometimes both) along the way.
- We learn how to read the set sources and start to write longer extended answers on them.
- We look at evaluating Alexander the Great's life and legacy.

### Kings of Rome

- The legendary kings: Origins of Rome 753–616 BC. A look at legendary founders Aeneas and Romulus, and some seminal stories of Rome's past.
- The Etruscan kings: 616–509 BC Divine omens, backstabbing, and the overthrow of tyrannical rule.
- The overarching theme of this unit is whether it is ever really possible to separate myth from reality, and to look at what these myths meant to later Romans.

## Assessment

- Regular low stakes factual content testing
- More practice at extended writing
- Full GCSE practice papers.

## Year 11 Skills and Knowledge

### Early Roman Republic

- Origins of the Republic: 509–494 BC. Stories of daring-do and the struggle to establish a free city.
- Securing the Republic: 494–440 BC. This period is characterised by class conflict. The poor struggle to assert themselves against the rich nobles by going on strike and withdrawing from the city. This is a fascinating period with rich parallels to the development of trade unions and historical struggles for civil rights.
- Across this unit we look at change and continuity in politics, society, religion and warfare

### Hannibal and the Second Punic War

- Explore the events between Rome and Carthage around 250 years after the end of the longer period study
- Understand the complex factors that allowed Hannibal to invade Rome and defeat its army, but after 17 years forced Hannibal to leave Italy to defend Carthage from a Roman invasion. Look at some brilliant generals (Hannibal, Fabius Maximus, Scipio Africanus) and some terrible ones (Varro and Minucius)
- Study the interactions between Carthaginian and Roman cultures.

## Assessment

- Regular low stakes factual content testing
- More practice at extended writing
- Full GCSE practice papers.

## Public Examinations

### OCR – Ancient History

The **Persian** period study will be worth 27.5% of the overall specification

The **Alexander the Great** depth study will be worth 22.5% of the overall specification

The **Roman** period study will be worth 27.5% of the overall specification

The **Hannibal** depth study will be worth 22.5% of the overall specification

# Fine Art

## Aim

An education in Art, Craft, and Design at Reading School should lead to a better understanding of the visual world and provide opportunities for pupils to develop their own visual language and the capacity to make informed, critical judgments. As visual communication is of such importance, this should help pupils to express themselves more effectively and help them understand how ideas and information are communicated. A strong art education can give young people an appreciation of why art matters, where it comes from, and where it fits in a wider social, historical, and political context. As well as being an enjoyable subject to study, Art helps pupils to better understand both themselves and the wider world by looking at what has been created by others before them.

## Purpose

In Art, we seek to challenge and support our pupils so that they are able to grow into being the most confident, competent artist, maker, or designer they can be. We aim to provide a stimulating teaching environment, focusing on the process of making by offering the use of a broad range of media, materials, and techniques so that pupils have a rich experience that prepares them well for their future life, and enables pupils to succeed. Alongside learning by doing, the thoughtful exploration of critical and contextual references is similarly valued, as well as broader reflection on issues and events that influence our lives and practice.

Over the course of three years, our artists try out new techniques, materials, and processes, and, by repeated reflection on their practice, learn over time on how best they can improve, so that their work shows increasing levels of skill and refinement. As pupils move through the course, less emphasis is put on direct artist-teacher instruction as pupils increase in confidence and competence, with the aim being that pupils are able to work more independently in Year 11; this better prepares them for post-16 courses, and puts the emphasis on their own actions. Given the individual strengths and weaknesses of each pupil, support is matched to the needs of the learner, with artist-teachers offering personalised diagnostic feedback on work each week.

Boundaries between Art, Craft, and Design are porous, so individual projects might involve a combination of materials, processes and technologies. Working with a variety of materials, media, processes, tools, and technologies arouses pupils' curiosity, helps encourage intrinsic motivation that produces sustained concentration and pride in accomplishment, creating a greater capacity for self-motivation, and developing skills as a learner. Pupils are supported to take creative risks and encounter challenge and indeed failure, so that they can learn coping strategies when not all goes well. Emphasis is put on the process of making - the gaining of skills, knowledge, and understanding - rather than purely on the outcome, as this will help ensure pupils show the most creative growth, and become competent, confident artists, makers, and designers who are able to work independently.

Projects are carefully scaffolded in terms of content so that as pupils demonstrate more competence and skill, they are given more freedom in terms of how they develop outcomes, or which critical reference they wish to further explore, with the aim that when pupils start their Major Project towards the end of Year 10, they are well-equipped to make informed choices as to their chosen area of focus.

## Cross-Curricular Connections

As well as developing practical and creative techniques in a range of media, studying Art, Craft, and Design gives pupils skills in using different types of equipment and processes, for example shibori, etching, and photography. Learning about different critical and contextual references and the people and cultures involved also encourages pupils to broaden their perspectives.

Transferrable skills acquired by studying the subject are useful and valued in a wide range of subjects and contexts, both inside and outside of the classroom. Alumni show strength in:

- observational, research, and analytical skills
- problem solving creatively
- their ability to manage their workload to meet deadlines
- their ability to develop and realise individual ideas and collaborate with others
- their ability to reflect upon and learn from criticism, and be objective about work
- their openness to new influences and concepts
- cross-cultural and interpersonal acceptance and understanding

## Support

In Art we strive to offer a supportive learning environment where pupils are challenged to achieve their best, no matter their individual level of ability, cultural background, additional learning needs, or previous art experience. We take the approach that all pupils are artists at an early stage of development, and aim to treat them as such. We have high expectations of all our learners, and work hard to build positive working relationships with pupils. During lessons, staff engage in critical one-to-one and

group diagnostic conversations with pupils that aim to encourage self-reflection and increasing independence, whilst referring to the criteria that have been provided for the task at hand.

The Art Department is open during the school day for pupils to continue their work independently, and for feedback and help from both peers and Art staff. As part of the broader community of practice within the department, there is a strong culture of pupils across different years supporting each other. As pupils progress through the course, scaffolds are provided for different projects that explicitly outline criteria for tasks, their links to the GCSE assessment objectives, and submission deadlines, so that pupils can see in advance what is required so they can better balance their workload. Homework and associated resources are uploaded onto Microsoft Teams so that pupils may access information outside of lessons.

## Curriculum Detail

The three years of the course have been designed to allow pupils to develop knowledge and understanding through a variety of learning experiences and approaches, including engagement with sources. This will allow them to develop the skills to explore, create, and communicate their own ideas. Pupils will demonstrate these skills through the development, refinement, recording, realisation, and presentation of their ideas through a portfolio and, in Year 11, by responding to an externally set assignment. As pupils progress, expectations with regards the quality and quantity of work are increased.

### Year 9

### Skills and Knowledge

**By working through practical projects based around a theme, pupils will develop practical and theoretical knowledge and understanding of:**

- Relevant materials, processes, technologies and resources
- How ideas, feelings and meanings can be conveyed and interpreted in images and artefacts
- How images and artefacts relate to the time and place in which they were made and to their social and cultural contexts
- Continuity and change in different genres, styles and traditions
- A working vocabulary and specialist terminology

- By repeated practice, increasing competency, refinement, and sophistication will be shown as the course progresses. Pupils will do this by working through practical tasks, reflecting upon their progress, and responding to feedback. Pupils will develop the skills to:
  - Record experiences and observations, in a variety of ways using drawing or other appropriate visual forms; undertake research; and gather, select and organise visual and other appropriate information
  - Explore relevant resources; analyse, discuss and evaluate images, objects and artefacts; and make and record independent judgements
  - Use knowledge and understanding of the work of others to develop and extend thinking and inform own work
  - Generate and explore potential lines of enquiry using appropriate media and techniques
  - Apply knowledge and understanding in making images and artefacts; review and modify work; and plan and develop ideas in the light of their own and others' evaluations
  - Organise, select and communicate ideas, solutions and responses, and present them in a range of visual, tactile and/or sensory forms

### Assessment

An exploratory year where artists undertake a series of short practical projects, trying out new media and techniques, and refining their practice. Alongside new experiences, skills gained during Y7 and Y8 are further built upon and refined.

### Years 10 and 11

### Skills and Knowledge

**Pupils are introduced to a variety of learning experiences, which encourage the development of skills through the use of appropriate media, processes, techniques and technologies**

- The work and approaches of artists, craftspeople or designers from contemporary and/or historical contexts, periods, societies and cultures
- Contemporary and/or historical environments, situations or issues
- Other relevant sources researched by the pupil
- The ways in which meanings, ideas and intentions can be communicated through visual and tactile language, using formal elements, including:

relevant to Art and Design and related area(s) of study.

Pupils should show knowledge, understanding and skills in the development of their personal work informed by first-hand experiences and appropriate secondary sources.

Pupils are encouraged to progressively develop their own strengths and interests in the subject and, increasingly, follow their own lines of enquiry.

- Colour
- Line
- Form
- Shape
- Tone
- Texture
- The characteristics, properties and effects of using different media, materials, techniques and processes, and the ways in which they can be used in relation to pupils' own creative intentions and chosen area(s) of study
- The different purposes, intentions and functions of art, craft and design in a variety of contexts and as appropriate to pupils' own work

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### Fine Art

- The way sources inspire the development of ideas, relevant to Fine Art including:
- How sources relate to individual, social, historical, environmental, cultural, ethical and/or issues-based contexts
- How ideas, themes, forms, feelings and concerns can inspire personally determined responses that are primarily aesthetic, intellectual or conceptual.
- The ways in which meanings, ideas and intentions relevant to fine art can be communicated including the use of:
- Figurative representation, abstraction, stylisation, simplification, expression, exaggeration and imaginative interpretation
- Visual and tactile elements, such as:
  - colour            line
  - form             tone
  - texture          shape
  - composition    rhythm
  - scale            structure
  - surface

- 
- Within the context of Fine Art, pupils will demonstrate the ability to:
    - Use fine art techniques and processes, appropriate to pupils' personal intentions, for example:
    - Mark-making
    - Etching, block printing
    - Assemblage
    - Construction
    - Photography
    - Digital working methods
    - Stitch
    - Use media and materials, as appropriate to pupils' personal intentions, for example:
    - Charcoal, pastels, pen and ink, and pencil
    - Watercolour, acrylic paint
-

- Found materials
- Textiles
- Digital imagery
- Different papers and surfaces on which to work

## Assessment

### Year 10

- Autumn + Spring Terms – Introductory project: This focuses on observing and recording, experimentation with different media and techniques, and using critical references as inspirational starting points, with pupils gaining new skills and refining their work as they progress. Artists are set a series of tasks based around one particular technique or critical reference, producing work in response to the given starting point. By doing this, pupils learn how to structure a GCSE project by working through a series of tasks that link to the GCSE assessment objectives, so that they are able to be successful in their next project.
- Summer Term – Major Project: This gets underway after a class trip to an inspirational venue, with pupils choosing their own individual area of focus; this can mean that every pupil's project has a different theme, so progress is supported through project sheets that link work required with the GCSE assessment objectives, with final outcome/s produced that clearly link to the chosen theme. This continues into the Autumn term of Year 11.

### Year 11

- Autumn Term – Continuation of Major Project with mock exam followed by final outcome/s produced.
- Spring-Summer Terms – Externally Set Assignment (ESA) begins in January; this is set by the examination board EDUQAS, with the pupils producing a body of preparatory work leading up to a final outcome that is produced in 10 hours under controlled conditions.

## Assessment

During lessons constructive oral feedback is provided by staff that is diagnostic in nature, and tailored to the individual strengths and weaknesses of each pupil. Criteria for tasks are shared with the class, so that pupils are aware of what they need to work towards with regards formal qualities, media and technique, or critical and contextual references. Referring back to these criteria, areas for improvement are suggested, with the expectation that pupils act promptly upon feedback given, so that their work can be seen to improve in terms of quality.

In addition to individual feedback from staff, group critiques offer pupils the opportunity to view the work of others, gaining ideas from their peers and offering constructive feedback as to how work could be improved. The nature and depth of questioning, and the balance of teacher or pupil-led discussion changes over the course of the three years. The concepts discussed are increasingly complex and nuanced, with pupils becoming more competent at independent critical analysis, and more confident in talking about their own work.

Individual pieces of work are not graded, so that pupils are best able to focus on the feedback given as this is the surest way to improve their work. Review grades looking at Curiosity, Perseverance, and Reflection are provided in accordance with the whole school assessment cycle; these grades consider the individual pupil's progress across the term when thinking about their own level of ability, attitude in class, and consistency in meeting deadlines. From the end of Year 10 onwards, projected GCSE grades are provided as part of whole school assessments.

At the end of the Year 11 course, coursework is marked by Art staff following standardisation materials provided by the examination board EDUQAS; these marks are submitted to EDUQAS, with a sample of work from both units of work reviewed by a visiting moderator to ensure that staff have followed the processes and marking criteria given.

## Impact

Feedback from pupils currently on the course is overwhelmingly positive. Pupils most frequently say that they appreciate the practical aspects of the subject, that it allows them to use their imagination, and that it helps them creatively express their thoughts and feelings, which they do not always find in other subjects. Individuality in their making helps them take pride in the work they produce, and they feel they have a greater sense of freedom in what they can do in lessons. They enjoy experimenting with new media and techniques, and that they have to move outside of their creative comfort zones, which they can often find challenging but enjoy learning new skills.

Showing the value and transferrable skills learnt from the subject, recent alumni from the department have gone on to study a diverse range of courses in the creative industries and beyond, such as Architecture, Fine Art, Animation, Computer Science, Engineering, Medicine, Physics, English Literature, and Mathematics. Institutions attended are again varied, for example Bath, Cambridge, UCL, Oxford Brookes, Nottingham, Cardiff, Sheffield, and Bournemouth. For those pupils who did not go onto further study in the creative arts, many get in touch with the department to let staff know they are still creating their own artwork in their free time, showing how their education in the arts helped engender lifelong learning and enjoyment.

## Public Examinations

### WJEC Eduqas GCSE Art and Design (Fine Art) C651QS

#### Component 1: Portfolio

A portfolio of practical work that in total shows explicit coverage of the four assessment objectives. It must include a sustained project evidencing the journey from initial engagement to the realisation of intentions and a selection of further work undertaken during the pupil's course of study.

- No time limit - 60% of GCSE

#### Component 2: Externally Set Assignment

Pupils respond to their chosen starting point from an externally set assignment paper relating to their subject title, evidencing coverage of all four assessment objectives.

- Preparatory period followed by 10 hours of supervised time - 40% of GCSE

The ability to handle materials, techniques and processes effectively, skilfully and safely underpins all the assessment objectives. It is important in enabling pupils to develop a personal language, to express ideas and to link their intentions to outcomes in a confident and assured manner.

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# Biology

## Aim

Scientific understanding is changing our lives and is vital to the world's future prosperity. All Reading School students are taught essential aspects of the knowledge, methods, process and uses of science. Biology not only encompasses aspects of the physical sciences and mathematics related to the living world, but also provides an opportunity to consider the ethical issues arising from the rapid advances in the life sciences.

Our vision is 'to inspire and challenge the next generation of biologists to make a difference'.

We aim to inspire students in a subject of continual advance and change; students are encouraged to keep up to date with many new issues and to gain an appreciation of the dynamic nature of science. Reading School biologists will experience a wide variety of practical techniques, ranging from dissections, aseptic plating of bacteria to the extraction of DNA. We believe that all practical work is an important part of understanding in biology, and we place a great significance on learning through investigations.

The idea that science progresses through a cycle of hypothesis, experimentation, observation, development and review is encompassed in this curriculum. It covers aspects of scientific thinking and aims to develop the scientific skills and conventions, fundamental to the study of science. We include understanding of theories and applications of science, the practical aspects of scientific experimentation, and objective analysis and evaluation. This will enable learners to develop an understanding of the processes and methods of science and, through consideration of the different types of scientific enquiry, learners will become equipped to answer scientific questions about the world around them. Learners will also develop and learn to apply skills in observation, modelling and problem-solving. Scientific-based claims require evaluative skills, and these are also developed in the curriculum. Learners will learn to evaluate through critical analysis of methodology, evidence and conclusions, both qualitatively and quantitatively. Working scientifically is split into concepts and practical skills. Both will be assessed in written examinations and may also be assessed through practical activities.

## Purpose

Science is not just a collection of facts. The processes and applications of science are as important as the key concepts. Furthermore, the importance of practical work in science is widely accepted and it is acknowledged that good quality practical work promotes engagement and interest of students as well as developing a range of skills, science knowledge and conceptual understanding.

In Biology we interlace the GCSE topics with content that students have gained growing confidence of through Years 7 & 8, to provide a strong foundation of knowledge on which to build. We revisit and build on the key concepts of cells, biochemistry, homeostasis & communication, exchange & transport, health & disease, ecosystems & biodiversity and genetics.

KS4 Biology pupils gain opportunities to:

- develop their interest in and enthusiasm for Biology.
- develop a critical approach to scientific evidence and methods.
- acquire and apply skills, knowledge and understanding of how science works and its essential role in society.
- acquire scientific skills, knowledge and understanding necessary for progression to further learning.

In KS4 Biology we encourage learners to:

- develop scientific knowledge and conceptual understanding of biology
- develop understanding of the nature, processes and methods of science, through different types of scientific enquiries that help them to answer scientific questions about the world around them
- develop and learn to apply observational, practical, modelling, enquiry and problem-solving skills, both in the laboratory, in the field and in other learning environments
- develop their ability to evaluate claims based on science through critical analysis of the methodology, evidence and conclusions, both qualitatively and quantitatively.

## Cross-Curricular Connections

Biology overlaps with all sciences, for example the details of biological molecules such DNA, and chemical reactions particularly respiration and photosynthesis connect with Chemistry whereas the structure of the eye, transfer of energy and light absorption intersects with Physics. Biology is linked with Geography regarding the effects of climate change upon species, ecosystems and habitats as well as the study of the how water and key elements cycle in nature. The history of scientific discoveries and how ideas have changed over time is embedded in the curriculum. Good literacy is fundamental to understand, respond to and use

a range of specialist language in Biology. Word stems and the Latin origin of biological terms are used to explain the meaning of the words. Biology is at the heart of many social and economic issues for example in relation to food security and sustainability. Biology is at the centre of many topics in PSHE for example the biological understanding of the effect of hormones or drugs on physiology as well as the transmission of disease. Biological supports Physical Education in understanding the physiology of exercise, the heart and muscles. Biological drawing links with being able to represent forms to scale and true to life in art.

Biology research is linked with many aspects of mathematics:

- Ecologists use statistics to uncover links between changing environments and animal populations
- Mathematical modelling helps epidemiologists predict the spread of diseases
- Evolutionary biologists use mathematics to analyse genetic data and piece together the tree of life

## Independent Learning

In a subject of continual advance and change, students are encouraged to keep up to date with these many new issues and to gain an appreciation of the dynamic nature of science. Learning is supported through wider reading, TV programmes, websites, online activities such as virtual laboratories. The LRC has a number of resources such as Phillip Alan magazines 'biological sciences review', 'new scientist' and 'the day'. Homework is varied and often involves exam questions practice and can also be used to prepare for lessons. Past papers, links to useful videos and revision sheets are available on share point and students are encouraged to use these to practice for exams and to aid their revision.

Research-based lessons are embedded in the curriculum which promote wider reading and learning outside the specification and allow students to explore them in greater depth for example lessons on stem cells, IVF, genetic testing, and modern farming techniques.

## Support

We are committed to providing a supportive environment for all students and we have developed a well-established successful mentoring system for a number of years. Sixth form biologists are able to develop their own leadership and communication skills through the mentoring and running of a weekly drop in clinic for years 7-11. Many of the students who have been mentored go on to study biology at A level and become mentors themselves. Students who attend clinic are provided with access to 'logon science' an electronic set of differentiated questions which are electronically marked. Learning mats are frequently used in clinic and are also available on share point to aid student revision. Students are supported remotely through a well-organised and purposeful selection of materials on the biology area of share point. All lesson material is permanently available, along with revision guidance, exemplar answers and practice questions.

## Stretch

Students are encouraged to consider extension work; all year 9 and 10 biologists are entered for the Biology Challenge run by the Royal Society of Biology. The Biology Challenge stimulates students' curiosity for the natural world and encourages them to take an interest in biology outside of school. Questions are set on the school curriculum, but the competition will also reward those students whose knowledge of the subject has been increased by reading books and magazines, watching natural history programs, taking notice of the news media for items of biological interest, and are generally aware of our natural flora and fauna. Inspire lectures are arranged to engage students in aspects beyond the specification in many different areas of biology. The medical society has many visiting scientists who give insights into the careers a GCSE and A level in Biology lead to. Specialist teachers and curious students fuel the frequent discussion of cutting-edge biological research and ideas.

## Year 9

### Skills and Knowledge

#### Inheritance and variation (KS3 and introduce B5.1)

- Basics of genetics and heredity including chromosomes and DNA discovery
- Basics of natural selection
- Types and causes of variation

#### Behaviour (skills-based topic)

- Innate, social and types of learned behaviour
- Ethical use of living organisms

#### Food and Digestion (KS3 and includes enzymes B1.2)

- Development of Scientific thinking
- Experimental skills and strategies
- Analysis and Evaluation
- Using scientific terminology
- Scientific literacy
- Applying mathematical skills – e.g., % energy transfer, calculation of rates, magnification
- Working safely
- Practical skill development

- Components of a healthy diet and consequences of imbalance
- The tissues and organs of the digestive system
- Mechanisms and factors affecting enzyme action
- PAG B2 Testing Biological molecules
- PAG B4 Rates of enzyme-controlled reactions

- Using a microscope
- Preparing slides
- Measuring under a microscope
- Table drawing
- Graph drawing
- Numeracy
- Understanding applications and implications of science
- Modelling
- Issues and ethics
- Research
- Communicating and collaborating
- Planning experiments
- Presenting a range of views

### Cells and microscopes (B1.1)

- Structure of eukaryotic and prokaryotic cells
- Types and uses of microscopes
- PAG B1 Microscopy

### Ecosystems(KS3 and B4.1)

- Trophic levels and energy transfer
- Recycling of nutrients and role of microbes

### Environment (KS3 and B6.1)

- PAG B3 Sampling techniques
- Biodiversity and conservation

## Assessment

- Self-assessment: exam and extension questions are used in self-assessment (in green pen), self-evaluation of key pieces of work and corrected using teacher guidance and model answers
- Peer-assessment: some investigations are peer assessed
- Teacher assessment: graded tasks on inheritance, movement of water in cells, and bioaccumulation, PAGs are assessed in class
- Tests: topic tests on inheritance and variation, food and digestion, cells and microscopes, end of year exam all tests include scientific skills and interlace previous topics

## Year 10

## Skills and Knowledge

### Respiration (B1.2)

- Aerobic and anaerobic cellular respiration
- PAG B6 Use of a respirometer

### Photosynthesis (B1.3)

- Law of limiting factors
- Inverse square law
- PAG B5 rate of photosynthesis

### Plant transport (B2.2)

- Structure and function of Xylem and Phloem
- Transpiration and translocation
- PAG B8 osmosis

### Animal transport (B2.2 and B6.3 non-communicable disease)

- Osmosis, diffusion and active transport
- Structure and function of human circulatory system

- Biological drawing - eye dissection
- Dissection – mammalian heart
- Further development of analysis, evaluation and conclusions
- Applying mathematical skills – e.g., % change, calculation of rates, interpretation of graphs
- In year 10 the fundamental biochemistry of respiration and photosynthesis extends the knowledge introduced in year 8 and progresses to the study of how substances move throughout animals and plants (B2.2). We have key graded activities which focus on mathematical, analytical and

- Lifestyle factors and cardiovascular disease
- PAG B6 Physiological responses
- PAG B8 osmosis

evaluative skills in these topics. The transmission of chemicals is further explored in nervous and hormonal communication at the end of year 10.

### Nervous communication (B3.1)

- The structure and function of the nervous system
- Brain structure, damage and treatment
- Reflexes and synapses
- The eye structure, function and correction of eye defects
- PAG B1 biological drawing – the eye

### Homeostasis (B3.2)

- Maintenance of a constant internal environment
- Hormonal communication
- Negative feedback
- The structure and function of the kidney
- The hormonal control of the menstrual cycle, water and blood sugar levels
- Plant hormones and their applications
- PAG B2 urine analysis

### DNA and protein synthesis (B1.2a)

- The discovery of the structure of DNA, genes and chromosomes

## Assessment

- Self-assessment: it is expected students self-mark any class work and homework that has been gone through in class (in green pen)
- Peer-assessment: used periodically to assess work
- Teacher assessment: evaluative skills assessment and key graded pieces of work, PAGs are assessed in class, MC assessment,
- Tests: respiration and photosynthesis, animal and plant transport, nervous and hormonal communication, end of year 10 exam

## Year 11

## Skills and Knowledge

### DNA (continued) genetics (B5.1)

- Transcription and translation
- Inheritance, variation and genetic crosses
- PAG B2 Extraction of DNA

### Cell division (B2.1)

- Mitosis and meiosis
- The cell cycle

### Evolution (B5.2)

- Natural selection
- Development of the theory of evolution
- Analysis of evidence
- Classification and naming of species

- Revision skills
- Exam technique
- In year 11 the application of the central dogma theory and the structure DNA further builds on the understanding of genetics and inheritance from year 7 and year 9. The replication of this molecule in cells and how natural selection occurs are explored drawing on the understanding of adaptations of organisms to their environment studied in year 9 in B6.1. The study of the manipulation of DNA and food security leads on to the study of diseases and how to combat these in plants and animals.

### Feeding the human race (B6.2)

- Factors affecting food security
- Genetic engineering and agricultural solutions

### Disease part 1 (B6.3.1)

- Causes and spread of communicable diseases
- Plant and human disease and detection
- Plant and human defences against disease
- Structure and function of the immune system
- Uses of monoclonal antibodies, vaccines and medicines
- PAG B7 aseptic techniques

### Disease part 2 (B6.3.2)

- Non-communicable disease
- Human genome
- Gene therapy
- PAG 4 Rates of enzyme-controlled reactions

## Assessment

- Self-assessment: students mark own work in green pen
- Peer-assessment: peer mark in purple pen
- Teacher assessment: PAGs are assessed in class
- Tests: Pre-Mock assessment, Mock (one paper), 2nd Mock (one or two papers)

## Public Examinations

### OCR GCSE (9–1) in Biology A (Gateway Science) J247

Paper	Marks	Time	Content	% of GCSE grade
J247/03	90	1 hour 45 minutes	B1,2,3 and B7	50
J247/04	90	1 hour 45 minutes	B4,5,6 and B7 (with assumed knowledge topics B1,2,3 and includes synoptic assessment)	50

- It is compulsory that learners complete at least eight practical activities (PAGs). 15% of questions in the written examinations that will assess practical skills. Learners also need to be prepared to answer questions using their knowledge and understanding of practical apparatus, techniques and procedures in written papers. Safety is an overriding requirement for all practical work.
- The assessment of quantitative skills would include at least 10% GCSE (or above) mathematical skills at the appropriate tier for biology. These skills will be applied in the context of the relevant biology.

# Chemistry

## Aim

GCSE study in the sciences provides the foundation for understanding the material world. Scientific understanding is changing our lives and is vital to world's future prosperity, and all learners should be taught essential aspects of the knowledge, methods, process and uses of science. They should be helped to appreciate how the complex and diverse phenomena of the natural world can be described in terms of a small number of key ideas relating to the sciences which are both inter-linked, and are of universal application. Chemistry can be defined as the science that studies systematically the composition, properties, and reactivity of matter at the atomic and molecular level. Since matter is everything that can be touched, made visible, smelt or tasted, it follows that the scope of chemistry as a subject is very broad.

## Purpose

Our Chemistry curriculum is intended to help Reading School students:

- Develop scientific knowledge and conceptual understanding of chemistry
- Develop understanding of the nature, processes and methods of science, through different types of scientific enquiries that help them to answer scientific questions about the world around them
- Develop and learn to apply observational, practical, modelling, enquiry and problem-solving skills, both in the laboratory, in the field and in other learning environments
- Develop their ability to evaluate claims based on science through critical analysis of the methodology, evidence and conclusions, both qualitatively and quantitatively.

## Cross-Curricular Connections

Chemistry has obvious links to the other sciences forming the bridge between the physical and biological branches. The practical skills taught in Chemistry will allow the students to gain confidence and precision when working that will help with any other practical subject. There is also a Maths requirement in the GCSE specification that will encourage students to make links between the 2 subjects.

## Independent Learning

Homework will be a combination of Kerboodle tasks, research projects and exam questions. Students are expected to develop sufficient independence to work regularly on set assignments at home.

## Support

Chemistry support will be offered in a variety of formats. Kerboodle can be used by all students to access support materials for any topics they are struggling with. A CGP revision guide is offered for purchase to all Y9 students at the start of the course. Chemistry Clinic runs once a week and is available as drop-in for students with any questions or compulsory for those who are struggling. Y12 mentors will be assigned to students who are really struggling to keep up with the course.

## Stretch

We frequently teach the topics to a greater level of detail than the exam specification and there are numerous opportunities for students to go above and beyond the specification if they are self-motivated to do so. We also provide many chances for students to engage in STEM competitions to stretch and challenge them in new and exciting areas of science.

## Impact

In addition to the core scientific principles the students will gain an insight into ideas such as:

- Societal responsibilities
- Environmental impact
- Sustainability
- Intellectual property
- Innovation

**Year 9****Skills and Knowledge**

- Describe the main features of the particle model in terms of states of matter and change of state
- Explain in terms of the particle model the distinction between physical changes and chemical changes
- Relate size and scale of atoms to objects in the physical world
- The models of Dalton, Thomson, Rutherford, Bohr, Geiger and Marsden
- Explain what is meant by the purity of a substance, distinguishing between the scientific and everyday use of the term 'pure'
- Describe, explain and exemplify the processes of filtration, crystallisation, simple distillation, and fractional distillation
- Describe and compare the nature and arrangement of chemical bonds
- Explain how the bulk properties of materials (ionic compounds; simple molecules; giant covalent structures; polymers and metals) are related to the different types of bonds they contain, their bond strengths in relation to intermolecular forces and the ways in which their bonds are arranged
- Explain the limitations of the particle model in relation to changes of state
- Describe how and why the atomic model has changed over time
- Separation of mixtures and purification of compounds.

**Assessment**

- Self-assessment: knowledge audit. Kerboodle tasks
- Peer-assessment: research and presentation
- Teacher assessment: Practical skills, research tasks and presentations.
- Tests: end of topic tests, end of year exam

**Year 10****Skills and Knowledge**

- Use the names and symbols of common elements and compounds and the principle of conservation of mass to write formulae and balanced chemical equations
- Explain how the mass of a given substance is related to the amount of that substance in moles
- Distinguish between endothermic and exothermic reactions on the basis of the temperature change
- describe competing reactions in the electrolysis of aqueous solutions of ionic compounds
- Recall the simple properties of Groups 1, 7 and 0
- Recall the general properties of transition metals and their compounds
- Describe tests to identify selected gases
- Describe tests to identify aqueous cations and aqueous anions
- Describe the advantages of instrumental methods of analysis
- Construct balanced ionic equations
- Deduce the stoichiometry of an equation from the masses of reactants
- Use a balanced equation to calculate masses of reactants or products
- Draw and label a reaction profile for an exothermic and an endothermic reaction
- Calculate energy changes in a chemical reaction
- Explain reduction and oxidation
- Predict the products of electrolysis
- Carry out tests for gases, cations and anions.

## Assessment

- Self-assessment: knowledge audit. Kerboodle tasks
- Peer-assessment: research and presentation. Multiple choice questions
- Teacher assessment: Practical skills, research tasks and presentations. Longer response questions
- Tests: end of topic tests, end of year exam

## Year 11

### Skills and Knowledge

- Explain how the concentration of a solution in mol/dm<sup>3</sup> is related to the mass of the solute and the volume of the solution
- Describe and explain the effect of changes in temperature, concentration, pressure, and surface area on rate of reaction
- Describe the characteristics of catalysts and their effect on rates of reaction
- Explain why and how electrolysis is used to extract some metals
- Describe the process of corrosion and the conditions which cause corrosion
- Recognise functional groups and identify members of the same homologous series
- Explain the basic principles of condensation polymerisation
- Describe how it is thought an oxygen-rich atmosphere developed over time
- Describe the greenhouse effect in terms of the interaction of radiation with matter within the atmosphere
- Measurement of gas volumes and calculating amount in moles.
- Titration calculations
- Calculate the atom economy of a reaction
- Calculate the percentage yield of a reaction
- Interpret rate of reaction graphs
- Predict the effect of changing reaction conditions on equilibrium position
- Evaluate alternative biological methods of metal extraction
- Interpret graphs of reaction conditions versus rate
- Interpret data from a life-cycle assessment of a material or product
- Interpret evidence for how it is thought the atmosphere was originally formed
- Evaluate the evidence for additional anthropogenic causes of climate change and describe the uncertainties in the evidence base

## Assessment

- Self-assessment: knowledge audit. Kerboodle tasks. Past papers
- Peer-assessment: research and presentation. Multiple choice questions
- Teacher assessment: Practical skills, research tasks and presentations. Longer response questions
- Tests: end of topic tests, end of year exam. Mock exam.

## Public Examinations

### OCR Chemistry A (Gateway) J248

- The students will sit 2 examinations, each worth 50% of the final grade.
- Paper 3 (J248/03) 90 marks - 1 hour 45 minutes assessing modules C1-3
- Paper 4 (J248/04) 90 marks - 1 hour 45 minutes assessing modules C4-6
- Both exams will also assess module C7 which consists of the practical skills that are imbedded throughout the course.

# Chinese (Mandarin)

## Aim and Purpose

*Requires student to be currently studying Mandarin or at an adequate standard – please contact Mr Wu*

With ever increasing globalisation, speaking more than one language is fast becoming an expectation both professionally and privately. Apart from the undeniable economic benefits and the cultural enrichment a foreign language provides, it is also scientifically proven that learning new languages, and handling various complex grammatical structures improves our memory, our problem-solving and critical-thinking skills. It also enhances our concentration, the ability to multitask and crucially our communication skills.

More than 1.3 billion people speak Chinese (Mandarin, Cantonese) across the world, which makes Chinese the most spoken first language in the world. It can connect speakers with an exciting and dynamic culture as well as boost career opportunities. Mandarin has been identified as one of the most important languages for the UK's future prosperity, so now marks the perfect time to start learning it. Besides, China's long history and its traditions in literature, the arts and cuisine make learning to speak Chinese an exploration and adventure.

In Mandarin, four language skills are tested at GCSE level: listening, speaking, reading and writing, all of which count 25% towards the final grade, providing an all-round education in the subject and affording the learner fluency in Mandarin.

## Skills for Life

- Communications skills: spoken and written
- Mental agility and problem solving
- Presentations skills
- Teamwork and interpersonal skills
- Listening skills, questioning and forming opinions

## Cross-Curricular Connections

Languages are an inherently interdisciplinary subject, writing skills from other areas of the curriculum. Given the wide range of skills acquired through language learning, Universities value students who have studied a language for GCSE. For instance, Russell Group Universities support applicants having language since well-developed communication skills are highly valued.

## Independent Learning

Generally, every language requires a certain amount of independent learning as it is essential that vocabulary is learnt and/or consolidated by the student at their own pace. Grammar will be learnt and explored in lessons, but we will ask students to practice it at home and so embed their prior learning. The principles of the Mandarin Excellence Programme with reference to independent learning will also be referred to.

## Support

- Revision sessions run by teachers to practice speaking and writing skills.
- Recording of conversations with teacher for revision.
- Support to know the success criteria for each language skill, especially for speaking and listening.
- Support to refer regularly to make good use of core vocabulary and grammar lists.

## Year 9

## Skills and Knowledge

### Identity and Culture

- Family
- Descriptions
- Daily Life
- Hobbies

## Local area, holiday and travel

- Town
- Region
- Country
- Travel
- Tourist attractions
- Holidays

## Assessment

- through regular formal and informal feedback students will recognise their own strengths and weaknesses to help them concentrate on what they need to improve on.
- Self-Assessment – against criteria and against model answers.
- Peer Assessment – content needed for written and spoken tasks.
- Teacher Assessment – ability to apply grammar, understand it and produce language
- Test – regular hurdle tests

## Years 10 and 11

## Skills and Knowledge

Continuation of GCSE topics utilising range of materials, consolidating all grammar we have learnt and preparing for external examinations. This includes practice in the key skills, using real exam material in Year 11, similar to that which the students will sit in their final examinations in the subject.

### Year 10

#### School: Future Aspirations, study and work

- Subjects
- Teachers
- Rules
- Activities
- Work
- Ambitions
- Using language beyond the classroom

### Year 11

#### International and global dimension

- Environmental issues
- Bringing the world together

## Stretch

- We offer exchange programmes with our partners in China which give the opportunity to be immersed in culture and language.
- We have effective links with UCL, University of Reading and the Mandarin Excellence Programme which give opportunity to flourish.

## Assessment

- The content and assessments provide an engaging focus. For instance, the authentic situations and stimuli enable students to see language in context and learn about the culture of the target language country.
- The Assessments allow for spontaneity and test grammar as well as providing opportunities for students to apply their knowledge independently, creatively and in authentic situations.
- Assessments are designed to be clear and concise and, where appropriate, questions feature scaffolding to help all students' progress the assessments with confidence.
- In addition, both papers are structured so that they are progressive in terms of level of demand with the most demanding question being the final question of the paper. Translation tasks are progressive in their level of difficulty and are of appropriate demand.
- There is continuous progression, for instance, linked to the Mandarin Excellence Programme. This content does build on the understanding developed at prior language learning experience in Years 7 and 8.

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## Public Examinations

### Edexcel ICNO Chinese (Mandarin)

Assessment details:

- Paper 1: Listening (25%)
  - Paper 2: Speaking (25%)
  - Paper 3: Reading (25%)
  - Paper 4: Writing (25%)
-

# Computer Science

## Aim

In this digital age, computer scientists are truly in demand, with computing being such a technologically fascinating and constantly evolving diverse profession. Teachers of computer science at Reading School are passionate about empowering students to develop their algorithmic and computational thinking skills using the latest technology as well as broadening their understanding of the fundamental concepts that allow computer systems to function.

Students will finish the course with a variety of analytical skills and a depth of knowledge that will prove beneficial across a multitude of other disciplines.

## Purpose

Year 9 is a skill building year with a focus on algorithmic skills and programming taught in tandem with introductory threads on the core areas of theory that underpin the subject.

Year 10 develops these theory areas in further detail, introducing the more complex concepts that build on the knowledge secured in year 9. Programming skills continue to be honed with the introduction of the more technical skills required by the course and with more full project work.

In the final year of the course, the focus is on refining students' knowledge, supporting and extending their understanding with consideration for students who intend to pursue computer science further.

## Cross-Curricular Connections

As the use of computers is ubiquitous in the 21<sup>st</sup> century, the application of the skills and understanding developed through the GCSE course are far reaching in real world applications. As a school subject, computer science, perhaps unsurprisingly, shares many common features with the other sciences. Although much is abstracted from the underlying mechanisms, physics is present in our discussion of logic circuitry, memory and storage technology and the signals that make wired and wireless communications possible.

Mathematics is used frequently in the data representation topic, as the relationships between the binary, denary and hexadecimal number bases are explored. The logic applied in mathematical problem-solving also underpins the application of boolean logic and holds some relevance in programming. Languages are relevant to computer science too, with the need for global communication driving the development of universal character sets like unicode and the linguistic skills required to learn how to correctly write program code.

Geography and T&P are also relevant as we discuss the environmental and ethical impacts that the use of computers creates in the modern world.

## Independent Learning

Homework assignments take a variety of forms in computer science. Digital "worksheets" are often set through Class Notebook in Teams to allow students to practice and test their understanding of concepts and skills. Programming tasks are set when relevant to encourage students to practise their programming outside of lessons. Flipped learning is also occasionally used to have students familiarise themselves with key concepts before they are explored in richer detail in class.

## Stretch

Students often have the opportunity to explore concepts in greater depth and most theory lessons include additional reading, bonus material and videos for students whose curiosity drives them to explore the topics in more detail. In practical programming tasks, appropriate bespoke extension challenges are given to suit the needs of each student.

## Year 9

## Skills and Knowledge

### Programming and Computational Thinking

- Develop an understanding of assignment, selection and iteration and how to use these in programming
- Understand how to use simple data structures such as 1-dimensional lists/arrays
- Understand how to structure programs using subroutines
- Understand how to identify and fix errors in a program, validate data, design simple authentication routines and test programs effectively

### Algorithms

- Be able to represent simple algorithms using flowcharts and pseudocode
- Understand the principles of the linear and binary search and bubble and quick sorting algorithms

### Data Representation

- Converting numbers between binary, denary and hexadecimal
- Performing binary addition and logical shifts
- Understanding and converting between different units of digital storage
- Understanding how binary data is used to store text and images

### Hardware and Software

- Developing an appreciation of different types of computer systems and how software and hardware interact
- Understanding the fundamentals of boolean logic
- Know the functions of different types of software, the operating system
- Understand the different ways that program code written in different languages can be turned into machine code

## Assessment

- Self-assessment: Reflection of progress in topics and projects. Homework and in-class assignments will be reviewed as a group and students review their own answers in line with this.
- Peer-assessment: For practice exam questions, peer marking is often used as the class discuss the mark scheme.
- Teacher assessment: Class questioning and discussion. Mid-topic quizzes using MS Forms.
- Tests: Regular progress tests covering recent topics and extending to prior topics give students the opportunity to revisit material and form a fuller understanding of their knowledge. End of year examination covers both the practical components and the foundational theory components that have been covered throughout the year.

## Year 10

## Skills and Knowledge

- Know how technology works, the specifications and limitations of use, to expand general knowledge of computer hardware
- Understand how algorithms work to provide efficient and reactive programs
- Be familiar with Boolean logic and operations to control program flow
- Know how to read/write text files and save and reuse data to enhance the users experience
- Extend knowledge of input and output device and their operation
- Explain the operation of all major components of a computer system, including the processor
- Investigate the relative merits of network topologies, explaining communication protocols
- Review and appreciate the impact of digital technology on individuals and the wider society, including laws on data privacy, computer access and misuse
- Continual review of the syllabus, ascertaining required level of knowledge acquisition.
- Deepen awareness of hardware and software capabilities, historically and present time
- Compare/contrast linear/binary search algorithms to ensure rapid program repose time
- Use the various logic operators within programs for program flow determination
- Consideration of how data is communicated between devices/sub-systems of the computer using the parallel wires of the buses
- Describe and appreciate the ownership of the main types of computer network, including personal, local area and wide area networks
- Explore aspects of cyber security in terms of social engineering and penetration testing
- Philosophise on the legal, ethical and environmental impacts of technology in society

## Assessment

- Self-assessment: Reflection of progress in topics and projects. Homework and in-class assignments will be reviewed as a group and students review their own answers in line with this.
- Peer-assessment: For practice exam questions, peer marking is often used as the class discuss the mark scheme.
- Teacher assessment: Class questioning and discussion. Mid-topic quizzes using MS Forms.
- Tests: Regular progress tests covering recent topics and extending to prior topics give students the opportunity to revisit material and form a fuller understanding of their knowledge. End of year examination covers both the practical components and the foundational theory components that have been covered throughout the year.

## Year 11

### Skills and Knowledge

- Ensure thought processes are aligned with thinking creatively, innovatively, analytically, logically and critically
- Integrate the use of mathematical skills relevant to computer science
- Deepen an understanding of digital systems components and both internal processor and external system communications
- What are the essential aspects of software development and how should they be applied?
- How to code a solution to a given problem and producing a report documenting the development of the solution
- How to critically analyse and evaluate both coursework and program code
- What are effective learning methods for both practical and theoretical knowledge acquisition?
- Develop and refine examination techniques that are effective in maximising marks
- What are effective examination revision methods?
- Practical activities extend abilities to structure and debug modular programs, integrating validation as part of the logical reasoning with valid tests comprising of normal, boundary & erroneous data
- Analysis and evaluation of the efficiency of a solutions design, reflecting on objectives and potential improvements to a program
- Demonstrate and apply knowledge and understanding of key concepts and principles of computer science
- Develop abilities in analysing problems in computational terms, to make reasoned judgements to design, program, evaluate and refine solutions
- Assimilation of essential theoretical knowledge, confirmed by questioning and written assessments
- Reflection on historical performances, with a focus on knowledge acquisition of void areas
- Consider effective examination techniques

## Assessment

- Self-assessment: Reflection of progress in topics and projects. Homework and in-class assignments will be reviewed as a group and students review their own answers in line with this.
- Peer-assessment: For practice exam questions, peer marking is often used as the class discuss the mark scheme.
- Teacher assessment: Class questioning and discussion. Mid-topic quizzes using MS Forms.
- Tests: Regular progress tests covering recent topics and extending to prior topics give students the opportunity to revisit material and form a fuller understanding of their knowledge. End of year examination covers both the practical components and the foundational theory components that have been covered throughout the year.

## Support

Frequent teacher led and peer mentor support as well as discussion group sessions occur online and at lunchtime. Additional support sessions are provided on an ad-hoc basis to accommodate students who have other activities. Coding and technology clubs are ideal settings for more formative construction of essential foundations.

## Stretch

The department seeks to cultivate an innate desire to develop skills in a fascinating subject, promoting the development of coding skills using the latest software tools. From the initial exposure in key stage 3 to Python and algorithmic thinking, fostering an individual's desire to succeed in developing their skills is paramount. The initial year of the GCSE qualification is an exploration of algorithms and high-level programming, enabling students to extend themselves often beyond the set syllabus. Students that have shown an advanced aptitude in computing are guided to develop enhanced skills in their chosen coding language and interest.

## Assessment

- Students are assessed at key points in the curriculum, focusing on recent topical knowledge learnt and capturing individuals' and overall class understanding. The initial practical year develops a foundation in logical thinking and extending coding abilities in an interactive way, with appraisal of projects being ongoing with continual teacher formative feedback as well as written reviews detailing excellence and areas for improvement. The second year of the course centres on theory, with the assessment providing more of a summative view, using end-of-topic written tests interspersed with mini online form-based quizzes.
- In year 11 further assessments and appraisals are performed with multiple examination style questions alongside targeted theory in preparation for the final examinations.

## Impact

Computer science is often used in tandem with other disciplines to provide a solution or answer questions that would involve using an extended amount of time if solved by more traditional methods. The ability to abstract real-life challenges whilst developing problem solving and critical thinking skills is a talent that is sought after in many industries. Independence, resilience and a willingness to try new approaches will extend students' creativity and this is encouraged and nurtured through the initial years and strongly promoted during the GCSE course.

The experiences and abilities developed can be drawn upon across a myriad of industries in later life; for example, a surgeon may incorporate the use of a robot to assist in or perform surgery or the global marketing of products via social media. Environmental affairs are approached philosophically, with considerations of the moral and ethical use of technology enabling a truly global perspective to be formed. The mainstream opportunities that exist with machine learning, artificial intelligence and communications will continue to thrive and require both users and developers to support society.

## Public Examinations

### AQA GCSE Computer Science (8525)

Students will be assessed via two examinations, with a positive aim of securing the higher-level grades.

Paper 1: Computational thinking, code tracing, problem-solving, programming concepts including the design of effective algorithms and the designing, writing, testing and refining of code.

- The examination is 50% (90 marks) of the GCSE and is 2 hours in duration.
- The question format will be a mix of multiple choice, short answer and longer answer questions assessing programming, practical problem-solving and computational thinking skills

Paper 2: Theoretical knowledge from subject content focused on computer systems, fundamentals of computer networks, relational databases, structured query language (SQL), data representation and cyber security, including ethical, legal and environmental impacts of digital technology.

- The examination is 50% (90 marks) of the GCSE and is 1 hour 45 minutes in duration.
- The question format will be a mix of multiple choice, short answer, longer answer and extended response questions assessing theoretical knowledge and the application of skills such as calculations and writing SQL queries.

# Drama

## Aim

Our Year 9 programme prepares pupils for the three Components they will encounter in the AQA Drama GCSE course, effectively establishing an introduction to the skills being examined in each component. In Years 10 and 11 our curriculum is designed to develop these skills further working towards excellent outcomes in the practical and written examinations. Underpinned by a skills-based approach, the emphasis is on building students' confidence in developing their own ideas to create original devised work, interpreting a script for performance and articulating a fresh, individual response to a text and to live performance that is supported and justified. The course will encourage students to develop creative, independent, analytical and evaluative thinking, where the development of practical skills will inform their written response.

Group work develops a sense of community within the team and more widely sets the tone for an individual's responsibility within the group for each other's performances.

The embodiment of different characters allows exploration of the idea of integrity, so that pupils may transfer this skill, once they have practiced it, to everyday life. Confidence and communication skills are enhanced to a high level, preparing students for communication challenges in their working life in the years to come, no matter what the field they are employed in.

Leadership – taking on leadership roles not only in the performances, but in also in technical areas of lighting and sound. Ability to lead as a director, produce constructive feedback and lead on analysis of texts within a group to come to a collaborative decision.

## Purpose

The choices made for the Drama curriculum appeal to the pupils in our high achieving and challenging environment - the set text for Component 1, extracts of plays to work on practically for Component 3, the stimuli for devised performance for Component 2 and the live theatre visits for Component 1. We build on the skills that students developed in Years 7 and 8, such as non-naturalism, the use of stage space, symbolism and the staging of extracts from a script. The Year 9 curriculum content capitalises on this foundation and supports progress towards the three Components of the Drama GCSE.

When working on the devising Component 2, we encourage the boys to develop their own ideas and themes, underpinned by research thus enabling them to sharpen the tools they need to become independent, self-motivated and positively-empowered students.

By watching and writing about the skill of professional actors, students will then implement their observations into their own practical skills in their own performances, all the while feeding back to peers about each other's performances so that they continually develop and improve. Alongside this, by studying set texts, writing about how to stage and perform a scene they develop the skills to perform themselves and direct each other.

Development of key themes and ideas across years 9 to 11 through the study of the texts to encourage deeper understanding as their skill set builds.

## Cross-Curricular Connections

The analytical and evaluative skills fostered in Drama help to inspire students to apply what they learn in our lessons across all subject areas. The discursive nature of the subject inspires GCSE Drama students to express themselves thoughtfully, purposefully and effectively in a range of scenarios, including class discussion, debate and presentations: again, all of these are essential skills across all subject areas. The development of their creative and collaborative skills when devising is also key in many other subject areas, as are the writing skills and careful structuring of an essay to answer the precise focus of a question.

Self-reflection is key and is a vital component of the Drama curriculum that can be transferred across every subject. Pupils are encouraged to look within, analyse self, and develop appropriate responses to feedback. The practice of this skill inevitably leads to improved confidence and increased performance in other subject areas.

## Independent Learning

Independent learning is a key component of the Drama curriculum. Students research topics and themes inspired by a stimulus for their devising project (Component 2). They share their findings with each other to substantiate the piece and to determine their dramatic aims and intentions. They work independently in groups to develop the story, characters and staging thereby learning key skills of organisation, co-operation, negotiation, creativity, peer and self-assessment. They also work in groups on research tasks relating to the cultural, historical and social background of the set text, and create a presentation for the class. They are expected to independently research the social, historical and cultural context of the play they perform extracts from for Component 3 to inform their understanding of the 'world of the play'.

**Understanding Drama**

- How tension is created, in a dramatic piece, how the shape of a piece must be constructed with climax and anti-climax
- Social, cultural and historical contexts with reference to Edgar Allen Poe short stories: Developing the tension and atmosphere work into a piece of written text re-imagined dramatically.
- Characteristics of dramatic works: Stage fighting

**Practitioners – Stanislavski and Brecht****Devising Drama (practical)**

- Devised drama based on a stimulus

**Texts in Practice (practical)**

- How meaning is interpreted and communicated: 'Warhorse' - Investigation and performance of the extracts of the play.
- 
- Watching a digital performance of the play as the Live Response element of the GCSE exam.

- Students develop knowledge and understanding of: genre, structure, character, form, style, language, sub-text, character motivation and interaction, the creation of mood and atmosphere, the development of pace and rhythm, dramatic climax, stage directions, the practical demands of the text.
- Students develop an understanding of: the plot and characters, specific features or hallmarks of the style/genre of the text, the context of the text, the social, cultural and historical context in which the text studied is set, the theatrical conventions of the period in which the text studied was created.
- Students learn physical control and safety relating to stage space in combat. How character creation links to how stage combat is created and performed.
- Students learn the key aspects of two of the most important and influential theatre practitioners in history. Their beliefs and techniques are investigated and used in practice in exercises and a scripted project for each practitioner
- Students develop the ability to create & communicate meaning, realising artistic intention in devised drama
- Students develop an understanding of: performance conventions, use of performance space and spatial relationships on stage, actor and audience configuration, relationships between performers and audience, design fundamentals such as scale, shape, colour, texture, performers' vocal interpretation of character such as accent, volume, pitch, timing, pace, intonation, phrasing, emotional range, delivery of lines, performers' physical interpretation of character such as build, age, height, facial features, movement, posture, gesture, facial expression.

**Assessment**

- Self-assessment: practical skills: throughout rehearsals when Devising and in Devising Log.
- Written skills: highlighting essays with reference to marking criteria
- Peer-assessment: practical skills: feedback when watching others perform.
- Written skills: essay peer assessment with reference to marking criteria
- Teacher-assessment: graded practical work, essays and logs marked with feedback for improvement
- Tests: Devising exam, technical terms tests

**Understanding Drama**

- Students analyse and evaluate the work of live theatre makers (performers and designers): viewing live theatre and practice in writing a response with a focus on performance and technical skills, building on content learned during year 9.
- 'The Woman in Black': in-depth text analysis and staging of scenes with a focus on historical, social and cultural context relevant to acting, design and costume, building on research presentations in year 9.

- Students learn to understand productions in terms of: how the play has been interpreted in the production seen and what messages the company might be trying to communicate, the skills demonstrated by the performers and how successfully meaning was communicated to the audience by the performers, the design skills demonstrated in the production and how successfully meaning was communicated to the audience through design.
- Students develop an understanding of: the plot and characters, specific features or hallmarks of the style/genre of the production, the context of the play/production. Students perform a section of the play

- 'The 39 Steps': students investigate comedy, how the genre is performed, how stage space is a key element of comedy. With in depth analysis of the techniques required for performance of an extract of the play

### Devising Drama (practical)

- Students learn how to create and develop ideas to communicate meaning in a devised theatrical performance.
- Deeper understanding of practitioner techniques including Stanislavski, Brecht, Frantic Assembly building on work in Yr 9
- Students learn how to contribute to devised drama in a live theatre context for an audience. Devising drama based on a stimulus – building on learning in year 9 as they understand the devising process having received peer and teacher feedback from previous year.
- Devising logs build on writing skills developed in year 9
- Begin work on Exam set text 'Blood Brothers'

for peer feedback and written self reflection with focus on style/genre and related performance technique.

- Students develop timing of lines, how to 'set' a joke and how to 'tag' a joke. Focus on pace, picking up of cues, stage space, prop work, physical comedy, style and genre.
- Students develop knowledge and understanding of: the characteristics and context of the whole play, exploring ideas for how the play may be interpreted practically
- Students develop their ability to: carry out research, develop their own ideas, collaborate with others, rehearse, refine and amend their work in progress, analyse and evaluate their own process of creating devised drama
- Students develop their ability to create and communicate meaning, realise artistic intention in devised drama.
- Students learn the social, cultural and historical background of the play and conditions in which the play is set and when it was written, The whole play is read by all students in class supported by further home reading and research.

### Assessment

- Self-assessment: throughout rehearsals when Devising and in Devising Log. Written skills: highlighting essays with reference to marking criteria
- Peer-assessment: practical skills: feedback when watching others perform. Written skills: essay peer assessment with reference to marking criteria
- Teacher-assessment: verbal assessment during rehearsals and graded practical work, essays and logs marked with feedback for improvement
- Tests: technical terms tests

### Year 11

### Skills and Knowledge

#### Understanding Drama

- Students study the roles and responsibilities of theatre makers in contemporary professional practice; Drama and theatre terminology and how to use it appropriately: honing the skills to write about live theatre performance including performance and technical skills
- Further practical exploration of exam set text: 'Blood Brothers': text analysis and staging of scenes with a focus on historical, social and cultural context in reference to acting and design. Students become more adept at writing about staging the scenes.

- Students explore specific roles including: playwright, performer, understudy, lighting designer, sound designer, set designer, costume designer, puppet designer, technician, director, stage manager, theatre manager. Students develop knowledge and understanding of: the activities each may undertake on a day-to-day basis, the aspect(s) of the rehearsal/performance process each is accountable for (their contribution to the whole production being a success). Students develop understanding of stage positioning, staging configuration: theatre in the round, proscenium arch, thrust stage, traverse, end on staging, promenade. Students gain a general understanding of the implications of the above stage configurations on the use of the performance space.
- Students develop an understanding of: the plot and characters, specific features or hallmarks of the style/genre of the production, the context of the play/production. Students develop knowledge and understanding of: the characteristics and context of the whole play, exploring ideas for how the play may be interpreted practically
- Students learn to draw on and demonstrate a practical understanding of the subject, developing their ability to interpret texts, create and communicate

#### Texts in Practice (practical)

- Extracts from texts to realise them in performance.
- Adopt the latest safe working practices.

meaning, realise artistic intention in text-based drama.

- Learn how to commit dialogue to memory for devised performances and/or learn text they are performing for text-based performances
- Develop the ability to interpret and/or create and perform a character as appropriate to the demands of the performance
- Develop a range of vocal skills and techniques eg clarity of diction, inflection, accent, intonation and phrasing; pace, pause and timing; projection, pitch; emotional range; song and/or choral speaking,
- Develop a range of physical skills and techniques eg movement, body language, posture, gesture, gait, co-ordination, stillness, timing, control; facial expression; eye contact, listening, expression of mood; spatial awareness; interaction with other performers; dance and choral movement
- Develop an appropriate performer/audience relationship and ensure sustained engagement throughout the performance

## Assessment

- Self-assessment: written: highlighting essays with reference to marking criteria. Practical performance work analysed and assessed during rehearsal
- Peer-assessment: practical skills: feedback when watching others perform. Written skills: essay peer assessment with reference to marking criteria
- Teacher-assessment: verbal feedback on practical work. Essays marked against exam board marking criteria
- Tests: technical terminology

## Support

We offer ongoing teacher feedback and support sessions for groups and individuals, before school, during break and lunchtime sessions and after school, for both the written and practical aspects of the course. As our class size tends to be a maximum of 21 students, the teachers are able to quickly identify which students need extra, out of class support, and will offer this specific to need. As it is a requirement of the course to see live theatre productions, we cover the cost of the trip for Pupil Premium students. We engage the services of the school's Student Support staff for individual students who find the written aspects of the course challenging.

## Stretch

The choice of extracts from plays is based on an awareness of each individual's strengths enabling us to cast boys in plays that will extend their practical ability and will encourage them to work beyond their 'comfort' zone. We offer the opportunity for boys to learn about technical aspects of the subject and to support the technical requirements (lighting and sound) for exam performances. We encourage students to see live theatre performances independently and recommend suitable productions. We encourage involvement in the extra-curricular Drama club and LAMDA sessions. We offer support and advice for boys auditioning for Drama school or a university Drama course. Student voice feedback shows how Reading School boys enjoy the challenges provided by the Drama Department and feel that staff place value in fostering their individual ambitions inside and outside of the classroom.

## Assessment

- A key feature of the Drama curriculum is teacher and peer feedback, for both written and practical work. We provide clear and strong marking and feedback to all students so they can set themselves targets and challenge themselves to make progress. In Year 9 students learn how to draft essays with closely monitored support and feedback from teachers. Students will be expected to take part in peer-assessment activities in order to familiarise themselves with examination board criteria as well as to learn from their colleagues' achievements and share in their successes. Mark schemes are shared with students at the start of each new component and they are empowered with teacher and student generated sample answers as well as models of effective planning.
- The students practice each element of the examined components in Year 9 and are assessed against the GCSE criteria to enable them to understand which specific skills they need to develop in order to improve their grade in the actual

GCSE examined component in Year 10 (Component 2 – Devising) and Year 11 (Component 3 – texts in practice and Component 1 – the written paper)

- Examiner reports, live scripts from former students used during real exams, and exemplar scripts produced by students are used to complement the marking feedback and provide comprehensive revision and consolidation material for students as they prepare for their written exam.

## Impact

The activities that make up the Drama curriculum foster a wide range of skills development essential for a fulfilled and successful life beyond school. Boys develop their creativity, they learn how to cooperate with others to create a shared goal and to problem solve. The written work demands perceptive skills of analysis and evaluation and they are encouraged to verbally analyse and evaluate their own and others' work, thereby developing their verbal and empathetic skills. Their resilience is tested and extended throughout the rehearsal process when they have to develop the confidence to try something out, assess whether it was effective and then choose whether to incorporate it in their final piece or to reject it; and all this through discussion and negotiation with their peers. They develop independent thought when they are required to form their personal opinion about productions they have seen and to evaluate others' work. The performance skills they learn develop their confidence in presenting to a group and a keener awareness of how voice and body are effective tools in communicating a message or an emotion and how this has an impact on the viewer; this in turn develops empathy.

Students become adept at verbalising their own ideas, harnessing an open-minded approach, developing their creativity and collaborative nature, social skills, ability to think beyond prescriptive curriculum expectations and to develop their own responses to show understanding of visual and verbal expression. All these undoubtedly enhance their character development.

During the 3 year course, pupils flourish in Excellence, leadership, confidence, reflection, analysis, effective critical evaluation, to become mature, focused young men who have a deeper appreciation of the context of the world in which they live.

## Public Examinations

### AQA GCSE Drama (8261)

#### Component 1: Understanding drama

What's assessed:

- Knowledge and understanding of drama and theatre
- Study of one set play from a choice of six
- Analysis and evaluation of the work of live theatre makers
- How it's assessed:
- Written exam: 1 hour 45 minutes
- Open book
- 80 marks
- 40% of GCSE
- Questions
- Section A: multiple choice (4 marks)
- Section B: four questions on a given extract from the set play chosen 'Blood Brothers' (44 marks)
- Section C: one question (from a choice) on the work of theatre makers in a single live theatre production (32 marks)

#### Component 2: Devising drama (practical)

What's assessed:

- Process of creating devised drama
- Performance of devised drama
- Analysis and evaluation of own work

How it's assessed:

- Devising log (60 marks)
- Devised performance (20 marks)
- 80 marks in total
- 40% of GCSE

This component is marked by teachers and moderated by AQA

#### Component 3: Texts in practice (practical)

What's assessed:

- Performance of two extracts from one play
- How it's assessed:
- Performance of Extract 1 (20 marks) and Extract 2 (20 marks)
- 40 marks in total

- 20% of GCSE

This component is marked by AQA

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# Economics

## Aim

Economics provides both an intellectual challenge because of the way it models human behaviour and interaction, and the opportunity to explore a different perspective on the forces that shape our contemporary world at household, industry, national and international level. We hope it also provides an insight into the influences that will determine our current and future lives. Students can use the 'frameworks', provided by economic theory and its applications, to gain a better understanding of the key events that they witness as they begin to take on the role of young adults in a rapidly changing world.

## Purpose

We start off by studying microeconomics. This might include looking at questions such as how and why do people choose to buy what they do? Why do some workers get paid more than others? How do firms decide what they should make and sell? And what is the role of government in making sure people, firms and workers make the right decisions?

Next, we go on to study macroeconomics. Why do prices rise, and does it matter? What can we do about unemployment? What is so good about economic growth? How do government policies affect economic success? Is increasing inequality a problem or a necessity?

Finally, we look at the international economy. Why is globalisation so important? Why do we import products from other countries? What are the economic implications of Brexit? Why are some countries richer than others?

The way economics is taught and assessed is embedded in a critical thinking approach which recognises that economic relationships can be best analysed in terms of cause and effect, and utilises the language and conceptual framework of the discipline to deconstruct these relationships in a way that sheds light on, and promotes understanding of, economic decision making at all levels. This requires an awareness of, and engagement with, current events and the wider political, social and moral context of economic decision making. Students will learn about the basic micro- and macroeconomic models and are encouraged to deepen their understanding of the relevance of the economic concepts we study by applying these to relevant current and historical economic issues. This includes reading a wide range of articles, as well as an appreciation of the importance of economic data, graphical representations of economic trends and discussions of economic problems.

## Cross-Curricular Connections

Economics is a social science ('the science of decision making'). Whilst the main focus is on economic decisions, these do not take place in a vacuum but within the context of other forces and influences- social, political, cultural and environmental. It offers a different, but complementary, perspective on the world we live in to that of Geography, History and Religious Studies. It requires an understanding of basic mathematical concepts and tools and is often underpinned by a 'scientific' approach, such as that deployed in Chemistry, Physics and Biology. Finally, Economics is about constructing coherent and informed arguments. Literacy skills are essential, in terms of comprehending and distilling information, and using that information to reach convincing and substantiated conclusions, which synthesise theory and evidence. Knowing and being able to employ economic terminology accurately and precisely is also a key requirement, and students are given ample opportunities to practice this, and develop an appropriate academic writing style.

## Independent Learning

Homework is set on a regular basis. This may take a number of forms. There may be required reading of the textbook for understanding, review and revision; there may also be short worksheets or extended response questions to answer, which will be peer-marked in the following lesson. Students may also be given guided short research tasks using news items, for example from the BBC News website. There is regular review and revision of key ideas and concepts as preparation for in-class testing; organising their own learning resources so that students take responsibility for an ordered and well-structured folder; reviews of their own work making use of the extensive feedback on assessments and other set tasks to identify their strengths and challenges and to build on these to achieve continuous improvement.

## Year 9

## Skills and Knowledge

### Introduction to Economics

- Main economic agents and factors of production
- The basic economic problem (scarcity, choice and opportunity cost)

### Microeconomics: The function of markets

- The role of markets
- Demand
- Supply
- Price
- Competition
- Production

- to learn and apply fundamental economics terms and concepts as they apply to markets
- to investigate and explain how markets work.
- to understand the different roles and perspectives of the main economic agents (consumers, workers, firms and government) and how they interact in the economy.
- to use and interpret quantitative data to predict and justify economic decisions.
- to appreciate that all economic choices have costs and benefits.
- to consider moral, ethical and sustainability issues as they apply to individual economic decision makers and their interactions

## Assessment

- Self-assessment: Own marking of 'snap' in class tests. Self-review of longer topic and end of year tests
- Peer-assessment: Peer marking of 'snap' tests. Interpreting and applying mark schemes to assess others' work
- Teacher-assessment: Regular in-class questioning; longer written assessments based on different topics and an end-of-year assessment: Detailed and comprehensive feedback provided for students to incorporate into their work
- Tests assess all the key assessment objectives and are increasingly modelled after past GCSE exam questions. Tests assess the knowledge and understanding of key economic terms and concepts, the ability to analyse a problem logically and the ability to weigh up the costs and benefits of actions.

## Year 10

## Skills and Knowledge

### Microeconomics: The function of markets

- Financial Markets
- Labour Markets

### Macroeconomics the national and international economy

- The macroeconomic objectives of government
- Economic Growth
- Unemployment
- Price Stability
- Fiscal Policy
- Monetary Policy
- Supply-side Policy

- To learn and apply fundamental economics terms and concepts as they apply to macroeconomic objectives
- To investigate and explain how economies work
- To understand the macroeconomic objectives- definitions, causes , consequences and solutions.
- To use and interpret quantitative data to predict macroeconomic outcomes and identify the interrelationships between economic indicators
- To appreciate the costs and benefits of achieving a macroeconomic objective from the perspective of consumers, workers, firms and government at national and international level
- To consider moral, ethical and sustainability issues as they apply to macroeconomic outcomes at national and international level
- To learn and apply fundamental economics terms and concepts as they apply to economic policy making

## Assessment

- Self-assessment: As above
- Peer-assessment: As above
- Teacher assessment: As above
- Tests: increasingly focus on answering GCSE-style extended response questions

## Year 11

### Skills and Knowledge

#### Macroeconomics the national and international economy

- International Trade
  - Balance of Payments
  - Exchange Rates
  - Globalisation
  - Fair distribution of income
  - Limitations of markets
- To learn and apply fundamental economics terms and concepts as they apply to economic policy making
  - To understand the role of policy in achieving macroeconomic objectives- the operation of policies, their implications and their limitations
  - To use and interpret quantitative data to predict the impact of policy choices
  - To appreciate the 'trade-offs' and 'conflicts' inherent in economic policy making e.g.in terms of the environment or inequality, and how these might have differential impacts on the economic agents.
  - To consider moral, ethical and sustainability issues as they apply to government decision making and policy consequences.

## Assessment

- Self-assessment: As above. Revision tests self-assessed and reviewed by teacher
- Peer-assessment: As above, with particular focus on the 'revision tests' at the end of the course
- Teacher assessment: As above
- Tests: Mock examination, past paper questions, timed-essay writing in class

## Support

The department aims to provide all students with a textbook written by examiners and endorsed by the exam board (OCR). In addition, all in class resources are available on Teams, alongside a year-specific discussion board where students can post questions, which are answered by other students and members of staff. Year 11 students may be offered the opportunity to join a weekly support session with directed help from a teacher and department-appointed Year 12 mentors,

## Stretch

The appeal of learning Economics is that it provides a unique insight into events that happen on a daily basis. In Economics we encourage students to bring news items into the classroom and to consider what Economics has to tell us about the cause, context and possible consequences of these events. News items regularly form the starting point of any given lesson in Economics; it can be as varied as the latest inflation or unemployment figures, the interest rate decision by the Bank of England, the rise of electric car production in China, the use of loyalty cards by supermarkets or the price of certain vegetables in the EU. Students are encouraged to be on the lookout for links between the subject and what they see in the world around them, and to read beyond the specification.

## Assessment

- The main focus of our assessment is in-class tests and the end of year exams. After every assessment, students are provided with comprehensive and detailed feedback, which incorporates model answers, mark schemes and commentaries on common mistakes or misunderstandings. Students are then required to reflect upon this and annotate their own answers to identify how their work could have been improved ('feedback'), and also how they can learn from their mistakes and avoid repeating them ('feedforward'). Our objective is to make students into 'their own best critics' and

to equip them to assess their work as an examiner would, utilising mark schemes, model answers and commentaries, to meet all the learning objectives.

- Revision for tests is set as homework, and students are always given notice of any assessment that requires time to revise. They are actively encouraged to revisit previous assessments to consider how they might improve their preparation and make best use of their knowledge and understanding to meet assessment objectives.

## Impact

Our aim is to make students better decision-makers as workers, consumers, and citizens and to recognise how economic factors influence the choices they make in all spheres of their lives. Many of our GCSE students take forward this enthusiasm, engagement, and their skills as economists to A-Level study (although GCSE Economics is not a requirement for studying A Level Economics).

Economics is highly valued by employers because it requires students to develop a portfolio of quantitative, reasoning and research skills. It is one of the most popular choices at university for 6th form students.

## Public Examinations

Final GCSE assessment is by exam only with students sitting two 90-minute papers comprising multiple choice, short-answer and longer discursive questions. These are Introduction to Economics -The role of markets and money (Microeconomics) and National and International Economics (Macroeconomics).

Each paper contributes 50% to the overall mark. The exam board for this qualification is OCR and further details can be found at [GCSE - Economics \(9-1\) - J205 - OCR](#)

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# Electronics

## Aim

A GCSE in Electronics provides a broad, coherent, satisfying and worthwhile course of study. It encourages students to develop confidence in, and a positive attitude towards, electronics and to recognize its importance in their own lives and in today's technological society.

Studying Electronics enables students to:

- Develop scientific knowledge and a conceptual understanding of the behavior of analogue and digital electrical/electronic circuits including a wide range of electronic components.
- Develop an understanding of the nature, processes and methods of electronics as an engineering discipline to help them answer questions about practical circuits.
- Be aware of new and emerging technologies.
- Develop and learn how to apply observational, practical, problem solving and evaluative skills in the identification of needs in the world around them and to propose and test electronic solutions.

## Purpose

Electronics develops and maintains interest in engineering subjects and the appreciation of their relevance to our everyday lives. The scope and nature of the study of electronics is coherent and practical. Significantly, the practical work element will enable students to see the theoretical knowledge in action and as a consequence gain greater understanding of the knowledge in a practical context. It is a useful subject to introduce some key real-world knowledge and skills in preparation for an engineering career in a future technological world.

## Cross-Curricular Connections

Design Technology is a STEM subject that develops skills and knowledge. It is a creative subject that relies on a foundation of theory, encouraging creativity and develop practical abilities. The interdisciplinary nature of the subject enhances project skills, problem solving and encourages teamwork. It is aligned with other STEM subjects especially.

## Independent Learning

The importance of independent learning in Design Technology (Electronics) alongside the ability to work as a member of a team is fundamental to being a successful student in Electronics.

## Year 9

## Skills and Knowledge

### Discovering Electronics

This aspect of the curriculum covers the following topics:

- Electronic systems and sub-systems
- Circuit Concepts
- Resistive components in circuits
- Switching circuits
- Application of diodes
- Combinational logic systems

### Apply knowledge and understanding of:

- Scientific communication
- Use of apparatus
- Basic circuits & Digital circuits
- Interfacing digital to analogue circuits
- Analogue communications

- In Year 9 there is a focus on developing the appreciation of the systems design life cycle.
- Over the course of the year this understanding matures into a practical problem-solving skillset that can be applied to new and emerging future technologies.
- Develop practical skills, including: operation of power and monitoring tools, breadboard design and layout.
- Understand and design simple circuitry from passive components.
- Gain an appreciation and application of basic formulae for determination of voltage and current using basic components in simple test circuits.

- Control circuits

### Assessment

- Half-termly mini test
- Termly formal written assessment based on WJEC examination board questions
- Log book feedback
- Review and feedback of student-built circuits, that are presented and explained in their log books
- Formative assessment of students' progress and skills development within the laboratory

### Year 10

### Skills and Knowledge

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Application of Electronics</li> <li>• Operational amplifiers</li> <li>• Timing circuits</li> <li>• Sequential systems</li> <li>• Interfacing digital to analogue circuits</li> <li>• Control circuits</li> </ul> | <ul style="list-style-type: none"> <li>• Develop and extend practical skills from Year 9, including: building circuits, using tools and breadboard design and layout.</li> <li>• Understand and design amplification and timing circuitry.</li> <li>• Gain an in-depth knowledge of and application of formulae for calculations of circuit voltage and current.</li> </ul> |
|---|---|

### Assessment

- Half-termly mini test
- Termly formal written assessment based on WJEC examination board questions
- Log book feedback
- Review and feedback of student-built circuits, that are presented and explained in their log books
- Formative assessment of students' progress and skills development within the laboratory

### Year 11

### Skills and Knowledge

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Analyse a problem</li> <li>• Design a specification to solve a problem</li> <li>• Make predictions</li> <li>• Evaluate practical risks</li> </ul> | <ul style="list-style-type: none"> <li>• Component familiarity and use</li> <li>• Modular circuit design and implementation</li> <li>• Analysis and evaluation of progress in relation to examination board expectations</li> </ul> |
|--|---|

### Assessment

- Half-termly mini test
- Termly formal written assessment based on WJEC examination board questions
- Log book feedback
- Review and feedback of student-built circuits, that are presented and explained in their log books
- Formative assessment of students' progress and skills development within the laboratory

### Stretch

Students are encouraged to participate in a range of STEM activities, clubs, projects and educational visits.

### Public Examinations

Students undertake a single extend system Design and Construction task. The task enables students to carry out a design and realisation task based on an individually identified problem, context or opportunity. There is a requirement to focus on:

- Analysis of the problem and derivation of a design specification.
- Development and testing of a range of sub-systems.
- Developing realization and testing of a final physical system.
- Evaluation of the final system against the design specification and consideration of potential improvements.

#### **Assessment – Component 1**

- Discovering Electronics
- Written Examination: 1 hour 30 minutes
- 40% of qualification
- A mix of short answer questions, structured questions and extended writing questions, with some set in a practical context.

#### **Assessment – Component 2**

- Application of Electronics
- Written examination: 1 hour 30 minutes
- 40% of qualification
- A mix of short answer questions, structured questions and extended writing questions, with some set in a practical context.

#### **Assessment – Component 3**

- Non Exam Assessment
  - 20% of qualification
  - An extended system design and realisation task to assess electronics skills.
-

# English

## Aim

In Year 9 our program of study prepares pupils for the types of texts and tasks they will encounter at GCSE, effectively establishing rigorous foundations for the 9 to 1 GCSE qualifications in English Language and English Literature. We want to present a breadth of English Literature and English Language study combined with a depth of analysis and creativity.

In Years 10 and 11 our curriculum is designed to encourage students to engage critically with and explore a variety of texts across the major genres including modern texts as well as classic literature. Underpinned by a skills-based approach, the emphasis is on building students' confidence in developing and articulating a fresh, individual response to texts that is supported and justified. We have also built a curriculum that meets the needs of students of differing abilities and interests and encourages an exploration of communication, culture and creativity through exciting 19th, 20th and 21st century texts. The course will encourage students to develop independent and critical thinking, engage with the richness of our language and literary heritage and experiment in writing across a range of contexts and styles.

## Purpose

We have chosen texts and topics which in our experience appeal most to boys in our challenging and high-achieving environment. We build on the genre work which students enjoyed in Years 7 and 8, including Gothic fiction and travel writing, adding new topics such as script writing and historical speech analysis. The Year 9 curriculum content capitalises on this foundation and supports progress towards the complexity of the set GCSE texts.

We also liaise closely with our colleagues in the LRC to deliver a range of subject-related skills such as research, competition shadowing and genre recommendations. This partnership with the library is essential in engaging all age groups as well as giving Reading School boys the tools they need to become independent, self-motivated and positively-empowered students.

## Cross-Curricular Connections

The analytical and critical skills fostered in English help to inspire students to apply what they learn in our classrooms across all subject areas. The spoken language topics and tasks we cover inspire all Reading School students to express themselves thoughtfully, purposefully and effectively in a range of scenarios, including class discussion, debate and presentations: again, all of these are essential skills across all subject areas. We specifically work together with other departments to share topic experience: for example with History to provide context for our topics such as conflict poetry, and Geography for some of our descriptive non-fiction writing units.

The English Department at Reading School has been used as a model of best practice for cross-curricular engagement by Aston University. We participated in the 2017 - 2019 Developing Literacy Project and have presented at the British Association for Applied Linguistics 2018 conference on Linguistics and Knowledge in Language Education.

## Independent Learning

Wider reading is at the heart of our curriculum across Years 9 to 11. Students are actively encouraged to explore the genres covered in the specification, and are provided with book lists and specially selected travelling libraries of texts relating to, for example, the dystopian and science fiction genres, literary and journalistic non-fiction travel writing, and poetry anthologies related to the topic of conflict. Helping students understand how to appreciate and critically approach unseen fiction and non-fiction texts from the 19th to the 21st century is an essential part of their GCSE education, and we provide them with the means and inspiration to engage with this requirement. Students are also regularly encouraged to use the LRC's JSTOR facility in order to supplement their own understanding with critical opinion. We want our students to understand the power of alternative interpretations of all texts, and teach them how to read openly and with a view of how, for example, theatrical productions can offer new ways of reading character and theme.

Students are also expected to lead some class sessions, and will regularly be asked to become experts on specific elements of texts, genre, style and themes in order to present their findings to their peers. Notes, presentations and quotations banks are independently created by students and then shared within the classes so that they learn how to learn from each other.

## Year 9

### Skills and Knowledge

- Gothic literature, specifically the short stories and poems of Edgar Allen Poe; First World War women's poetry; literary non-fiction travel writing, including Bill Bryson; television and film script writing, including the "Harry Potter" series and "A Poet's Guide To Britain"; persuasive speeches from history, including Churchill and Obama; study of a Shakespeare play, including
- Text analysis; comparison; recreating texts and original writing; contextual study and its impact on meaning.
- Defining gothic genre and its conventions.
- Analysing and comparing suspense in a selection of Poe's short stories. Analytical essay writing skills include demonstrating understanding and imagination in engaging

“Richard III”; structured poetry, including sonnets and sestinas.

with the text; exploring and develop ways of interpreting the text; be supported by careful reference to the text.

- Analysing and comparing poetry by identifying key poetic techniques and themes. Comparative responses should: demonstrate an ability to explore ways in which texts link and connect with one another, show understanding of how meaning and effects are produced in different texts, be supported by careful reference to the texts.
- Analytical essay writing skills, and presentation research and performance skills.
- Imaginative writing skills, creating an effective tone, register and content in the style of stimulus texts. Recreative writing should: demonstrate an ability to recreate the ‘voice’ or register of the stimulus text; show understanding of the content and meaning of the stimulus text; show understanding of how meaning and effects are produced in the stimulus text.
- Understanding and applying the conventions of script writing.
- Identify speech writing conventions.
- Identifying and applying rhetorical techniques and understanding their effect.
- Analysing the language of a speech and how it conveys meaning. Identifying key dramatic conventions, construction of character, plot and themes; use of language to convey meaning; close textual analysis; exploration of the text in performance.

## Assessment

- Self-assessment: using exam board generated mark criteria and model answers
- Peer-assessment: during drafting using teacher-provided scaffolds
- Teacher assessment: in detail during drafting of each task and at the end of each topic
- Tests: this is a year-long creation of a coursework folder, so the assessment is non-examined.

## Years 10 and 11

## Skills and Knowledge

- Reading unseen C21st, C20th and C19th non-fiction texts; reading unseen C21st and C20th literary non-fiction texts; spoken language presentation; reading “Macbeth” plus appreciating the effect of C17th context; reading “War Of The Worlds” plus appreciating the effect of C19th context; reading “Never Let Me Go” plus appreciating the effect of dystopian context; reading unseen dystopian genre texts; “Towards A World Unknown” poetry; reading unseen poetry.

### Literature

- Students develop comprehension skills, learn to articulate their understanding of aspects of plot, characterisation, events and settings and to distinguish between literal and implied meaning. Students develop critical reading skills, engage personally with texts, including with those written for performance and build confidence in their abilities to sustain an individual response which is supported and justified. Students reflect on the contexts in which texts are set, for example,

- Text analysis; comparison; recreating texts and original writing; contextual study and its impact on meaning.

### Literature

- Reflect critically and evaluatively on reading. Respond to: themes, ideas and issues, characters and relationships, language, social and/or cultural contextual factors, genre and plot development.
- Pay attention to the details of a text; understand the significance of a word, phrase or sentence in context; demonstrate the ability to read at a literal level and also explore deeper implications.
- Explain motivation, sequence of events and the relationship between actions or events; identify and interpret key themes; make an informed personal response, justifying a point of view by referring closely to evidence in the text; recognise and evaluate the possibility of different valid responses to a text.
- Explain and illustrate how choice of language shapes meaning; analyse how the writer uses language, form and

those relating to social and cultural situations or experiences. They look at literary contexts in reading, for example, use of symbolism or allegory for effect. Students develop their own viewpoints supported by textual evidence and recognising that there are different interpretations that other readers could make. Students analyse and evaluate how language, form and structure inform and impact on their reading of texts. Students will require knowledge and understanding of grammatical features and literary and linguistic terminology.

- Students develop critical and comparative understanding of texts and should explore modern literature more widely, through reading a diverse range of modern prose or drama extracts and texts. They will engage with different texts and begin to discover how understanding of one text is illuminated by its relationship with another. This prepares them for making comparisons between their studied text and a thematically linked unseen modern, same-genre extract in the exam.
- Students make a sustained, informed personal response to their reading. They are able to write effectively about literature for different purposes, including writing to describe, explain, summarise, argue, analyse and evaluate. Students craft their writing and create impact through careful selection and emphasis of key points, interwoven with textual evidence to back up their understanding and ideas.

## Language

- Students read a wide range of high-quality non-fiction texts and prose fiction drawn from the 19th, 20th and 21st centuries. This may include for example, essays, journalism (both printed and online), travel writing, speeches and biographical writing, as well as extracts from novels, short stories or literary nonfiction such as autobiography. They are required to read in different ways for different purposes. They read and analyse texts that are designed, for example, to persuade, inform, instruct, or advise. They explore how effectively texts achieve their purposes by comparing and evaluating the usefulness, relevance and presentation of ideas and information. Students engage with texts, developing independent viewpoints and recognising different interpretations. They develop knowledge and understanding of linguistic and literary terminology to support their analysis of texts.
- Students produce clear and coherent non-fiction pieces, including writing to: describe, explain, inform, instruct, argue, persuade. Students produce original texts in a range of non-fiction forms, for example, articles, speeches and letters. Students also produce imaginative, original texts in a range of forms, including, for example, short stories and autobiographical writing. They use narrative techniques identified from their wide reading of prose fiction texts to

structure to create effects and impact; use relevant subject terminology accurately to support their views.

- Students make connections and contrasts between texts, comparing features and qualities.
- Students produce clear and coherent pieces of extended writing, select and emphasise key points and ideas for a particular purpose, develop and maintain a consistent viewpoint, use textual references and quotations effectively to support views and use accurate Standard English and spelling, punctuation and grammar.

## Language

- Identify and interpret key ideas and information from texts; comment on writers' choices of vocabulary, form and grammatical features, paying attention to detail; explore the effects of writing for particular audiences and purposes; summarise ideas and information from a single text and synthesise from more than one text; draw inferences and justify points of view by referring closely to evidence from the text; use appropriate linguistic terminology to support their analysis.
- Evaluate the usefulness of a text by identifying bias and misuse of evidence; use a broad understanding of the text's context to inform their reading; explore organise ideas and information clearly and coherently; select and emphasise key ideas and information to influence readers and reflect the purpose of the writing.
- Maintain a consistent viewpoint across a non-fiction piece of writing; make considered choices of vocabulary and grammar to reflect particular audiences, purposes and contexts; adapt tone, style and register as appropriate; use the knowledge gained from wider reading of non-fiction to inform language choices and techniques; make appropriate use of information provided by others to write in different forms. Write to create emotional impact; use a range of sentence structures for clarity, purpose and effect, with accurate punctuation and spelling; organise ideas and information clearly and coherently; select and emphasise key ideas and information to influence readers and reflect the purpose of the writing.

achieve deliberate effects in their own writing. They develop skills to adapt their writing for different purposes, audiences and contexts. Students explore how vocabulary and grammatical features can be used to achieve particular effects. They use techniques identified from their wide reading of non-fiction texts to achieve specific effects. Students apply their knowledge and understanding of appropriate linguistic conventions and use rhetorical devices effectively. They develop skills to adapt their writing for different purposes and contexts. Students apply their knowledge and understanding of linguistic and literary conventions to create impact in their own writing.

## Assessment

- Self-assessment: using exam board generated mark criteria and model answers
- Peer-assessment: using exam board generated mark criteria and model answers
- Teacher assessment: timed exercises to recreate examination conditions, with formal feedback and sample answers after task
- Tests: classroom timed exercises on a regular basis (bi-weekly in Year 11), plus four formal whole examination sessions

## Support

The English Department operates an open-door policy for all students. We offer before-registration, break-time and after-school one-on-one feedback and target-setting sessions on a first come first served basis, as well as permanently timetabled out-of-class time revision and support meetings. In 2021 – 2022 we will stage a rolling six-week programme of original writing skills workshops for selected Year 10 students. The school's Learning Support Coordinator also visits the Year 10 and Year 11 classes to support and consolidate the GCSE English Language teaching as required; she also meets individual students for weekly appointments to support their progress in literacy and expression.

## Stretch

We provide opportunities for all students to become involved in a range of extra-curricular activities:

- Year 7 Book Club
- BBC Young Reporter project
- Reading School Book Week
- Author lectures and writing workshops
- Visiting touring theatre groups
- Reading School Poet Laureate chosen on an annual basis
- McIlroy extended writing competition
- Weekly lunchtime writing clubs, including the Wordsmiths Guild
- Senior poetry club in collaboration with The Abbey School

In addition, we organise theatre trips to see productions by world class theatre companies such as the RSC and NT. Regular, positive, student voice feedback proves how Reading School boys enjoy the challenges provided by the English Department, and feel that our staff place value in fostering their individual ambitions inside and outside of the classroom.

## Assessment

Assessment in Years 9 to 11 is built on the foundations of how we nurture and target key Language, Literature and Spoken skills throughout Years 7 and 8. Our main focus is providing clear and strong marking and feedback to all students so they can set themselves targets and challenge themselves to make progress. Successive student voice surveys credit the English Department with using assessment to support and encourage in the most effective ways, specifically suited towards their learning needs. In Year 9 students learn how to draft essays with closely monitored support and feedback from teachers. They also craft and develop their presentation skills, with a focus on coaching and supporting each other as they approach the final assessment. Students will be expected to take part in peer-assessment activities in order to familiarise themselves with examination board criteria as well as

to learn from their colleagues' achievements and share in their successes. All mark schemes are shared with students before units start, and they are empowered with teacher and student generated sample answers as well as models of effective planning.

Because the GCSE English Language and GCSE English Literature terminal exams are so long (four papers of two hours each) we make time in the summer, autumn and spring terms of Years 10 and 11 to let the students experience a full Big School exam in each of the components. For the compulsory Spoken Language endorsement for GCSE English Language we use a combination of Literature texts and PSHE/SMSC focused non-fiction tasks as the stimuli for students' recorded presentations, starting in January of Year 11. In the case of each GCSE full practice exam paper, students will respond to their marked papers by using a target sheet to focus on assessment objectives and commit to specific elements for challenge and improvement. For regular individual timed essay practice question completed during class time students will receive specific individual target setting responses from the teacher, and often also whole class general focuses for improvement related to that specific question. In addition, examiner reports (both the official ones from OCR as well as locally produced reflections on questions written by our in-house Assistant Examiners), live scripts from former students used during real exams, and exemplar scripts produced by department colleagues will be used to complement the marking feedback and provide comprehensive revision and consolidation material for students as they prepare for their exams.

There are currently two OCR Assistant Examiners in the English Department who provide support for both colleagues and students, sharing the kinds of hints and tips which are not printed in mark schemes or specifications.

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## Impact

Students will have read a wide range of classic literature fluently and with good understanding, and made connections across their reading. They will have been given the tools to read in depth, critically and evaluatively, so that they are able to discuss and explain their understanding and ideas. We want Reading School students to develop the habit of reading widely and often; appreciate the depth and power of the English literary heritage and in response write accurately, effectively and analytically about their reading; and become empowered with the technical and grammatical terminology and other literary and linguistic terms they need to effectively criticise and analyse what they read.

Our students will be provided with the opportunity to experiment in their writing across a range of contexts and styles, control the basics of grammar, develop a confident control of spoken Standard English and demonstrate the ability to use spoken language appropriately in formal settings. All students will have laid a solid grounding in literature, communication and social skills, appropriate for whichever path they choose to take, whether going on to Further Education, Higher Education or the workplace.

The value of our subject is confirmed by the Russell Group, which regards English Literature as a 'facilitating subject' by universities. This means that it is a discipline which opens up a wide range of courses to students for study at undergraduate level. Regardless of which academic discipline Reading School students choose to follow at university, their English Language and English Literature studies will be seen as helpful and worthwhile stepping stones.

## Public Examinations

### OCR GCSE English Language J351, comprising:

- Two exams of two hours each, both featuring reading responses to unseen non-fiction texts along
- with students' original writing.
- A compulsory spoken language endorsement, carried out in class time, which does not contribute
- towards the overall final GCSE grade.
- 

### OCR GCSE English Literature J352 comprising:

- Two exams of two hours each, both featuring questions focusing on the set texts (and one task
- requiring a comparison with an unseen text).
- The set texts are "Macbeth", "War Of The Worlds", "Never Let Me Go" and OCR's "Towards A World Unknown" poetry anthology.

Both exams are 'closed text', which means students are not allowed to take the texts with them into the exam hall.

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# French

## Aim

With ever increasing globalisation, speaking more than one language is fast becoming an expectation both professionally and privately. Apart from the undeniable economic benefits and the cultural enrichment a foreign language provides, it is also scientifically proven that learning new languages, and handling various complex grammatical structures improves our memory, our problem-solving and critical-thinking skills. It also enhances our concentration, the ability to multitask and crucially our communication skills.

More than 450 million people speak French in 29 countries on all five continents, giving a wide range of opportunities no matter where life takes you. It has a quickly growing population with an important number of French speakers in France. It is also the second most widely learned foreign language after English, and is also the only language, alongside English, that is taught in every country in the world. French is an important language in countries where it is one of the official languages, but also for countries with an important French-speaking community (Lebanon, Madagascar...). It is not only spoken in a wide range of countries but especially in countries with a strong economy on the global scale (France, Canada, Switzerland, etc.), offering excellent job prospects.

France itself is our closest neighbour and a prime business partner. The country is at the forefront of a number of fields which makes knowing French a valuable asset for anyone interested in one of these: medical research, space and astrophysics, engineering, international law and relations, AI, medicine, business, car manufacturing, luxury... France is also the world's top tourist destination and attracts more than 87 million visitors a year.

In French, four language skills are tested at GCSE level: listening, speaking reading and writing, all of which count 25% towards the final grade, providing an all-round education in the subject and affording the learner fluency in French.

## Skills for Life

- Communications skills: spoken and written
- Mental agility and problem solving
- Presentations skills
- Teamwork and interpersonal skills
- Listening skills, questioning and forming opinions

## Cross-Curricular Connections

Languages are an inherently interdisciplinary subject, uniting skills from all areas of the curriculum. Given the wide range of skills acquired through language learning, universities value students who studied a language for GCSE, with the Russell Group Universities even expecting their applicants to have a language to at least GCSE level, since well-developed communication skills which are essential in today's workplace.

## Independent Learning

Generally, every language requires a certain amount of independent learning as it is essential that vocabulary is learnt and/ or consolidated by the student at their own pace. Students can learn/revise vocab with their vocab booklet or online resources (Quizlet, Knowt). Grammar will be learnt and explained in lessons, but we will ask students to practise it at home and so embed their prior learning. This can be done in their exercise book, on Teams uploaded materials or with online resources (This Is School, BBC Bitesize).

## Year 9

## Skills and Knowledge

We immerse ourselves in the GCSE topics using the AQA textbook and a range of other materials, consolidating all Grammar we have learnt and we build on the topics and structures studied in Years 7 and 8 in greater depth in terms of using more sophisticated ideas, grammar and vocabulary. We teach through interactive lessons, language learning websites, our on-line textbook with listening material, role-plays, pair work and formal and informal assessment.

We use a combination of resources including the AQA GCSE Studio text book, as well as the online

- Tenses: present, perfect, near future, imperfect and the conditional
- Modal verbs
- Reflexive verbs
- Possessives
- Direct and indirect object pronouns
- Prepositions
- Complex opinions

Kerboodle text book plus various websites to practise listening and vocabulary skills.

Students will prepare basic writing and speaking exercises and, with the help of scaffolding, learn how to extend their writing and speaking and how to sound sophisticated and achieve the top grades.

- Partitive article
- Comparative/superlative
- If clauses
- y/en pronouns
- Formal/informal language
- Asking questions

## Assessment

Through regular formal and informal feedback students will recognise their own strengths and weaknesses to help them concentrate on what they need to improve on. Self-assessment: against criteria and against model answers

- Peer-assessment: content needed for written and spoken tasks
- Teacher assessment: ability to apply Grammar, understand and produce the language
- Tests: every half term - low stakes end of topic tests

## Years 10 and 11

### Skills and Knowledge

We continue to go through the GCSE topics at an accelerating pace using the AQA textbook and a range of other materials, consolidating all Grammar we have learnt and getting ready for the exams, which includes practice in all four skills as well as translation, using real exam material similar to that which the students will sit in their final exam.

- Revise previous grammar
- Tenses: subjunctive, pluperfect, past conditional
- en + present participle
- Après + past infinitive
- Infinitive clauses
- Relative clauses

## Assessment

Assessment and feedback: through regular formal and informal feedback students will recognise their own strengths and weaknesses to help them concentrate on what they need to improve on. Self-assessment: self-reflection on written and spoken tasks

- Peer-assessment: content needed for written and spoken tasks
- Teacher assessment: ability to apply Grammar, understand and produce the language
- Tests: every half term - low stakes end of topic tests

## Support

We offer a French clinic once a week and we have a mentoring system where Year 12 students are available to assist boys. All vocabulary is on our French Quizlet class and we recommend websites such as Kerboodle, our online textbook, Quizlet, Knowt, This Is School and BBC Bitesize which assist in learning and consolidating grammar and vocabulary as well as Reading and Listening skills.

## Stretch

We offer trips abroad; we currently have an exchange programme with a mixed school in Fougères (Brittany, France), which offers the perfect opportunity to completely immerse in the language

## Public Examinations

### AQA GCSE French (8658)

Students who complete this course will be more than able to enter the AQA French GCSE course (8658). This course is assessed through:

- Speaking 25% (12-15 minutes 1:1 with teacher. Role Play card, Photo Card and General Conversation)

- Listening 25% (comprehension questions include written and multiple-choice tasks; dictation of short, spoken extracts 45 minutes)
  - Reading 25% (written answers, multiple-choice and a translation from French into English, 1 hour)
  - Writing 25% (two writing tasks, one of 90 words and one of 150 words. This paper also contains a translation from English into the target language. 1 hour 15 minutes)
-

# Geography

## Aim

A high-quality geography education at Reading School inspires in students an intellectual curiosity about the world and its people. Geography at Reading School intends to help students understand the processes that give rise to key physical and human geographical features, how these are interdependent and how they bring about spatial variations and change over time. They will develop the geographical skills necessary to collect and analyse a range of data, gathered through residential fieldwork. They will be able to interpret a range of sources before communicating geographical information through quantitative skills and extended writing. With exposure to a range of perspectives, they will learn to see and interpret the world with open eyes.

## Purpose

Topics are chosen for their ability to inspire a curiosity in distant places, and to deepen student understanding of phenomena closer to home. The decision to re-emphasise UK geography throughout the course enables students to bring to bear their own contextual knowledge, engaging them in the subject, whilst exposing them to unfamiliar contexts gives them a sense of perspective valued by employers. The topics chosen initially build on the foundations laid in Years 7-8, where similar ideas are floated, yet a more critical approach is fostered at KS4. Exemplification of topics through case studies is central to the Geography curriculum, rather than tacked on at the end. The topics are sequenced to alternate between the nominally human and physical aspects of the discipline, in order that students recognise the inherent interplay between the two. The complexity of discussion grows over the course, as, through a growing bank of place knowledge, students are furnished with the tools to recognise the complexity of an issue and apply understanding in unfamiliar contexts.

## Cross-Curricular Connections

Geography is an inherently interdisciplinary subject that unites the social sciences and natural sciences in the knowledge of the Earth. Geography applies the unifying vision required by many contemporary issues, enhancing students' interpretation of economics, international relations and history in particular. Our information society is dependent on GIS (geographic information systems) for traffic management, fire and rescue services, weather information and product marketing. Insightful analysis of this data requires manipulation and processing of data, something which mathematicians relish. Geographers have demonstrated that they are particularly well-suited to contribute to interdisciplinary endeavours because of the breadth and depth that the discipline enfold.

Within a student's KS4 experience at Reading School, their learning in geography will have particular, but not exclusive, overlap with the following subjects:

- Biology – particularly regarding the effects of climate change upon species, ecosystems and habitats.
- Economics – particularly regarding the inequalities between LICs and HICs.
- History – particularly regarding analysis of competing sources of evidence.
- Mathematics – particularly in units on statistics, data trends, numerical evaluation and presentation.
- Physics – particularly regarding the structure of the Earth and the formation of atmospheric hazards.

## Independent Learning

Students are set regular homework tasks that embed prior learning, inspire wider learning and prompt an interest in topical events. We want them to get 'lost' in their research and interest, to recognise the applications to reality of their learning. Application of knowledge and understanding to exam-style questions grows in frequency across the course, with an emphasis on the idea that there is rarely one 'correct' answer. We work closely with the LRC to direct boys to an up-to-date set of resources, and an introductory reading list for all topics can be found on the Geography GCSE area of Sharepoint and Teams.

## Year 9

## Skills and Knowledge

### Coastal Landscapes

- Distinctive UK coastal landforms are the result of rock type, structure and physical processes
- The use of different management strategies to protect coastlines from physical processes

### Urban Environments

- How urban growth creates opportunities and challenges for NEE cities such as Rio de Janeiro; challenges which require urban planning to improve.

- Identifying the inter-relationships among phenomena
- Ability to critique the reliability of evidence
- Suggesting reasons for spatial differences
- Understanding of the psychology of those in areas affected by natural and human processes
- Recognising the strengths and weaknesses of different responses
- Summarising and distilling of most relevant information
- Description of data trends

- Urban change in UK cities such as Bristol leads to social, economic and environmental opportunities and challenges. Regeneration projects are needed.
- The features of sustainable urban living and how urban transport strategies are used to reduce traffic congestion.
- Recognition of multiple points of view
- Recognition of the wider knock-on impacts of a human/physical change
- Understanding of human and physical environments in creating resource insecurity and potential solutions.
- Evaluating solutions at different scales.
- Applying real world examples.

#### Ecosystems and Tropical Rainforests

- How do biotic and abiotic components interact in ecosystems?
- Interdependence of inputs in tropical rainforests
- The extent to which deforestation has economic and environmental impacts
- How can tropical rainforests be managed sustainably?

#### Resource Management

- How uneven are our global resources of food, water and energy distributed, what issues does this cause and how can this be mitigated? With a specific focus on the UK
- How our supply and demand vary across the globe and creates energy insecurity with strategies to reduce this.
- How can energy be use sustainably in the home, businesses and urban areas?
- How effective are micro-hydro schemes in rural areas?

### Assessment

- Self-assessment: against criteria and against model answers, locational knowledge
- Peer-assessment: process-based questions, definition knowledge, landform models
- Teacher assessment: ability to structure evaluative questions, presentations
- Tests: follow the completion of different sections of the topics, end of topic/section tests

### Year 10

### Skills and Knowledge

#### River Landscapes

- Distinctive UK fluvial landforms resulting from physical processes
- How physical and human factors affect the risk of flooding
- The use of different management strategies in the UK to protect river landscapes from the effects of flooding
- Appreciation of the relative significance of impacts and processes
- Ability to explain patterns of spatial distribution
- Creating alternative solutions
- Setting processes within systems
- Distinguishing between causal relationships and correlations

#### Changing Economic World

- How can we measure development and quality of life?
- How does demography link to development?
- What are the causes of uneven development and how does it manifest itself?
- Applying theory to real world examples
- Understand complexity of interactions
- Develop well-evidenced arguments
- Appreciation of a range of viewpoints
- Understanding of the dynamism behind temporal and spatial change

- Which are the most effective strategies to reduce the global development gap? (Jamaican Tourism Case Study)
- How has Nigeria's rapid economic development led to significant change, and what role did TNCs play in this?

#### Cold Environments

- What makes polar and tundra environments distinctive?
- Do the challenges of development in Svalbard outweigh the opportunities?
- How can cold environments be managed sustainably?
- Appreciation of global diversity
- Application of synoptic knowledge
- Ability to resolve competing viewpoints

#### Paper 3 – Fieldwork preparations

- The criteria for an effective geographical enquiry
- Different types of data and how to record them
- Appreciation of a range of methods of data presentation
- Describing, analysing and explaining fieldwork data
- Making conclusions and evaluating an enquiry
- Develop competence in fieldwork skills
- Critiquing 'effectiveness'
- Applying knowledge to real context
- Suggesting relevant alternatives
- Recognising limitations of data

### Assessment

- Self-assessment: multiple choice questions, self-reflection on fieldwork techniques
- Peer-assessment: structured evaluative discussions, critique of creative solutions
- Teacher assessment: evaluative extended essays with individual feedback
- Tests: follow the completion of different sections of the topics, end of topic/section tests

### Year 11

#### Skills and Knowledge

#### Natural Hazards

- How and why different types of natural hazards pose risks to people and property
- What physical processes lie behind earthquakes, volcanic eruptions and tropical storms?
- Why do the effects of, and responses to, earthquakes and tropical storms, vary between areas of contrasting levels of wealth?
- What evidence is there that extreme weather events in the UK are linked to climate change? How can we mitigate and adapt to climate change?
- Understanding of complexity of interrelationships in systems
- Synoptic links between distinct topics
- Interplay between human and physical environments
- Evaluation of real world strategies

#### Paper 3 – Issues analysis

- Analyse a geographical issue at a range of scales
- Consider and select a possible option in relation to the issue
- Consider the points of view of the stakeholders involved
- Develop a critical perspective
- Evaluate the alternatives.
- Apply knowledge and understanding to interpret, analyse and evaluate
- Use geographical skills to examine conflicting viewpoints about the issue

- Appraise the advantages and disadvantages
- Justify a decision

## Assessment

- Self-assessment: Critical review of extended prose
- Peer-assessment: Ability to suggest improvements to peer work
- Teacher assessment: Targeted support and stretch based on individual needs
- Tests: follow the completion of different sections of the topics, end of topic/section tests

## Support

Students are supported remotely through a well-organised and purposeful selection of materials on the Geography area of Teams. All lesson material is permanently available, along with revision guidance, exemplar answers and practice questions. Furthermore, all students have access to an online textbook. The Geography Office has an open-door policy where students are welcome to come and discuss areas of uncertainty. Certain students in Y11 are selected for mentoring, whereby in exchange for a willingness to act on feedback, staff members provide individual support.

## Stretch

The Geography department aim to stretch and challenge students through imaginative and varied lessons, including debates, student-led presentations and decision-making exercises; all of which place no ceiling on the potential outcomes and encourage self-directed learning. Where relevant, students are directed towards appropriate wider reading concerning the topic in hand and encouraged to look for the geographical nature of topical current affairs.

## Assessment

In Geography our assessment philosophy aims to ensure that feedback from teachers encourages improvement in students' skills, knowledge and understanding. Throughout the course, a wide range of assessment points are integrated, rather than focusing solely on end of topic tests. This allows students and teachers to build their awareness of progress without just focusing on end of topic tests.

Our teachers offer narrative comments to each assessment that guide and support and we expect students to take responsibility, responding through improved answers. We tell students in advance regarding the date and the indicative content in end of topic tests to ensure students are well-prepared for these, rather than feeling afraid of assessment.

## Impact

Students have the opportunity to participate in debates, Climate Change Conferences, a day's fieldtrip to the Jurassic Coast in Year 9, a 4 day residential fieldtrip to Margam in South Wales and our overseas trip to the Azores in Year 10. These develop crucial elements of character, with independent critical thinking, empathy and problem solving all highly valued by employers. Our curriculum is structured to allow generous time for discussion, and for consideration of others' opinions. In this way, learning activities, as well as the content of the course, promotes citizenship.

In addition, Geography's diverse subject content allows pupils to keep their options open later on and this is confirmed by a report from the Russell Group of universities who listed it as a facilitating subject, preferred by admissions tutors for its contribution to preparation for university study. The knowledge and skills that students may develop will enhance their understanding of global issues, their understanding of the impact of their own lifestyle choices, and their appreciation of the rich range of human experience.

## Public Examinations

### AQA Geography GCSE course (8035).

This course is assessed through:

- One written exam of 1 hour 30 minutes, worth 88 marks (including 3 for SPaG) on Physical Geography which makes 35% of the assessment,
- One written exam of 1 hour 30 minutes, worth 88 marks (including 3 for SPaG) on Human Geography which makes 35% of the assessment,
- One written exam of 1 hour 15 minute, worth 76 marks (including 6 marks for SPaG) that tests applied skills including fieldwork and issue evaluation, making up 30% of the assessment.

The question types in these papers include multiple-choice, short answer and extended discursive prose.

# German

## Aim

With ever increasing globalisation, speaking more than one language is fast becoming an expectation both professionally and privately. Apart from the undeniable economic benefits and the cultural enrichment a foreign language provides, it is also scientifically proven that learning new languages, and handling various complex grammatical structures improves our memory, our problem-solving and critical-thinking skills. It also enhances our concentration, the ability to multitask and crucially our communication skills.

German is not only the most spoken language in Europe, it also has wide economic significance, given the range of successful companies based in Germany, Austria and Switzerland. However, German-speaking countries are not only worth a business visit, they also hold a multitude of exciting landscapes, cuisine and cultural heritage that make them desirable holiday destinations.

German is a very logical language, with straightforward grammatical structures. Like English, it is also a Germanic language, with many words in common with English, which helps with vocabulary learning.

In German four language skills are tested at GCSE level: listening, speaking reading and writing, all of which count 25% towards the final grade, providing an all round education in the subject and affording the learner fluency in German.

## Skills for Life

- Communications skills: spoken and written
- Mental agility and problem solving
- Presentations skills
- Teamworking and interpersonal skills
- Listening skills, questioning and forming opinions

## Cross-Curricular Connections

Languages are an inherently interdisciplinary subject, uniting skills from all areas of the curriculum. Given the wide range of skills acquired through language learning, universities value students who studied a language for GCSE, with the Russell Group Universities even expecting their applicants to have a language to at least GCSE level, since well developed communication skills which are essential in today's workplace.

## Independent Learning

Generally, every language requires a certain amount of independent learning as it is essential that vocabulary is learnt and/ or consolidated by the student at their own pace. Students can learn/revise vocab with their vocab booklet or online resources (Quizlet). Grammar will be learnt and explained in lessons, but we will ask students to practise it at home and so embed their prior learning. This can be done in their exercise book, on Teams uploaded materials or with online resources (This Is School, BBC Bitesize).

## Year 9

## Skills and Knowledge

We build on the topics and structures studied in Years 7 and 8 in greater depth in terms of using more sophisticated ideas, grammar and vocabulary. We teach through interactive lessons, language learning websites, our on-line textbook with listening material, role-plays, pair work and formal and informal assessment.

We will start the GCSE book at the end of the year, including fun activities which include a lot of speaking to help students understand how to achieve the top grades in German.

Students will prepare basic writing and speaking exercises and, with the help of scaffolding, learn how to extend their writing and speaking and how to sound sophisticated and achieve the top grades.

- Tenses: present, perfect past, imperfect past, future
- Modal verbs and the conditional
- Verbs: separable verbs, reflexives, strong verbs
- um-zu construction, infinitive with zu
- The case system
- Adjective endings
- Word order, incl. coordinate and subordinate clauses

## Assessment

Assessment and feedback: through regular formal and informal feedback students will recognise their own strengths and weaknesses to help them concentrate on what they need to improve on. Self-assessment: against criteria and against model answers

- Peer-assessment: content needed for written and spoken tasks
- Teacher assessment: ability to apply Grammar, understand and produce the language
- Tests: every half term - low stakes end of topic tests

## Years 10 and 11

## Skills and Knowledge

We immerse ourselves in the GCSE topics using the AQA textbook and a range of other materials, consolidating all Grammar we have learnt and getting ready for the exams, which includes practice in all four skills as well as translation, using real exam material similar to that which the students will sit in their final exam.

- Revise previous grammar
- Comparison of adjectives
- Tenses: pluperfect, conditional/ future perfect - comparison of adjectives
- Passive
- Relative clause

## Assessment

Through regular formal and informal feedback students will recognise their own strengths and weaknesses to help them concentrate on what they need to improve on. Self-assessment: self-reflection on written and spoken tasks

- Peer-assessment: content needed for written and spoken tasks
- Teacher assessment: ability to apply Grammar, understand and produce the language
- Tests: every half term - low stakes end of topic tests

## Support

We offer a German clinic once to twice a week and we have a mentoring system where Year 12 students are available to assist boys. All vocabulary and grammar points are on Sharepoint and we recommend websites such as Kerboodle, our on-line textbook, quizlet.com, languagesonline.org.uk and thisisschool.com which assist in learning and consolidating grammar and vocabulary.

## Stretch

We offer trips abroad; we currently have an exchange programme with a boy's Grammar School in Germany, which offers the perfect opportunity to completely immerse in the language

The department sometimes runs activities and offers opportunities that are purely for enrichment though these vary from year to year.

## Public Examinations

### AQA GCSE German (8668)

Students who complete this course will be more than able to enter the AQA German GCSE course (8668). This course is assessed through:

- Speaking 25% (12-15 minutes 1:1 with teacher. Photo card and Role-play card and conversation)
- Listening 25% (comprehension questions include written and multiple-choice tasks; dictation of short, spoken extracts 45 minutes)
- Reading 25% (written answers, multiple-choice and a translation from German into English, 1 hour)
- Writing 25% (two writing tasks, one of 90 words and one of 150 words. This paper also contains a translation from English into the target language. 1 hour 15 minutes)

# History

## Aim

History is integral to understanding the world we live in, how we as a civilisation have reached this point and how lessons from the past can be applied to current affairs. History at Reading School intends to help students understand the causes, consequences and significance of the actions of people and events throughout history and how links can be drawn between them. We encourage pupils to broaden their minds when researching events to create a more accurate interpretation of the world we live in and not just accept when they are told; to delve deeper into topics and question the norm. History encourages students to be critical analysers of the world around them and helps them to understand their place in the vast sweep of human history.

## Purpose

The topics chosen initially build on the foundations laid in Years 7-8 where ideas such as Empire and the importance of Religion are addressed before more in depth looks at concepts and their impact across KS4.

In Year 9 we study Migration, Empires and the People which gives a fantastic overview of a great number of topics but also gives us a greater understanding of our place in the world today and where Britain as a nation has developed both through the positive and negative aspects of invasions, empires and the development of new ideas. With this 1000+ year study we are able to give student a great overview of key concepts in history without the depth allowing pupils a greater understanding of the world we live in. Migration studies is relevant to today with the world changing around us it offers students an interesting perspective into how Britain has reached this point and a greater understanding when key topics are in the news such as Brexit and the Windrush scandal.

Year 10 allows pupils to develop skills and understanding further moving on from the breadth study to the depth topics of Russia and Conflict and Tension in the Inter-war years. With Russia, we see how an empire ends and how Communism comes into being, whilst Conflict and Tension allows students to understanding the international relations between countries post WW1 and the failings and fears of dealing with important issues, such as Fascism, in the build up to the Second World War where two contrasting ideologies developed that almost led to Mutually Assured Destruction with the Cold War which is looked at in detail at 6th Form.

Finally in year 11, pupils study the reign of Elizabeth I. Positioning this in year 11 allows the boys to mature and gain a greater understanding and empathy for the past that comes with growing older. Year 10 looks in depth in a modern context that often so easily captures the imagination of our students where Elizabeth requires a greater understanding and appreciation of the Early Modern Period, which can appear alien to students but is the precursor to so many things in our life such as the power of parliament, whilst also linking the development of the British Empire studied in year 9. Elizabethan History in year 11 is also incredibly useful for gaining a greater understanding of the period before studying in more depth at 6th Form level.

Pupils will develop analytical skills to be able to breakdown sources of information as well as become experienced at debating through the creation of solid arguments supported with strong substantial evidence. Not only will they develop verbally but their extended writing will become more complex and developed through linking different factors and aspects to strengthen each point they make.

## Cross-Curricular Connections

Geography – particularly regarding analysis of competing sources of evidence

Drama and English through study of the First World War

Economics with the effect and impact it can have on the country and international affairs and diplomacy. Specific examples of economic impact on other countries – Russia and the impact of the Great Depression.

Ancient History and Classics with the historical empathy and understanding of different customs and cultures. Similar skills when it comes to analysing sources and constructing arguments

Religious Studies for the appreciation of the place of Religion in the world we live in.

Research, analysis, debating skills that are fundamental and transferable across many different subject areas.

## Independent Learning

Students are encouraged to follow their interests in the subject and not only do homework to consolidate their learning and enhance understanding but to give pupils the opportunity to explore other interesting periods of history that our extensive curriculum doesn't cover through our Mysteries of History and Meanwhile, Elsewhere. Application of knowledge and understanding to exam-style questions grows in frequency across the course and we constantly suggest films, TV series, podcasts documentaries and more to vary the homework whilst also making it worthwhile in enhancing pupils understanding.

**Part one: Conquered and conquerors**

- Invasion: Vikings and Anglo-Saxons; reasons for Viking invasions; creation of the Danelaw; Alfred and Wessex; King Cnut, Emma of Normandy and the North Sea Empire.
- A Norman Kingdom and 'Angevin' Empire: relationship between England and France; Henry II; invasion of Ireland; losses under King John.
- The birth of English identity: the Hundred Years' War and its impact for England's future development.

**Part two: Looking west**

- Sugar and the Caribbean: piracy and plunder; the development of the slave trade, including John Hawkins; settlements in Barbados and West Indies; the economic and social impact of the slave trade on Britain.
- Colonisation in North America: causes and consequences of British colonisation; Raleigh; Jamestown; contact and relations with indigenous peoples; commodities; Pilgrim Fathers; indentured servants; the War of Independence, loss of American colonies.
- Migrants to and from Britain: Huguenot migration; Highland clearances; the Ulster plantations.

**Part three: Expansion and empire**

- Expansion in India: causes and impact of British control; East India Company; Robert Clive; Warren Hastings; Indian Rebellion (1857); the social, political, cultural and economic impact of empire on Britain and India.
- Expansion in Africa: causes and impact of British involvement; trade and missionary activity; South Africa; Egypt; the Scramble for Africa; Cecil Rhodes; the Boer War (1899–1902); imperial propaganda.
- Migrants to, from and within Britain: Irish migration to Britain; Jewish migration to Britain; transportation; migration to and within the Empire, including migration of Asians to Africa; migration from rural to urban settings.

**Part four: Britain in the 20th century**

- The end of Empire: the impact of the First and Second World Wars; the impact of Suez; nationalism and independence in India and Africa, including the role of Gandhi, Nkrumah and Kenyatta.
- The legacy of Empire: 'Windrush' and the Caribbean migrants; the work of Claudia Jones in the UK; migration from Asia and Africa, including the role of Amin in Uganda; the Commonwealth; the Falklands War.
- Britain's relationship with Europe and its impact: the impact of the Second World War; economic, social and cultural interaction; the end of the Cold War and membership of European Union; European and non-European migration.

Students will study the importance of the following factors:

- war
- superstition and religion
- chance
- government
- communication
- science and technology
- the role of the individual in encouraging or inhibiting change
- There is a huge focus on change and continuity across the whole period. There is also a focus on causation and in understanding what makes events and individuals significant.
- They should also be able to distinguish between different types of causes and consequences, such as short/long-term causes, intended/unintended consequences.

**Assessment**

- Self-assessment: against criteria and against model answers, content knowledge
- Peer-assessment: of exam style questions and low stake knowledge quizzes
- Teacher assessment: of understanding and empathy of the periods studied. Through exam style questions with mock exam in the Summer term and at the end of the module.



**Russia, 1894–1945: Tsardom and communism****Part one: The end of Tsardom**

- Russia's economy and society: industrialisation; living and working conditions in cities and villages.
- Nicholas II's autocracy and the court: growth of revolutionary opposition; the 1905 Revolution and October Manifesto; the impact of, and reactions to, attempts to reform Russia up to 1914; the Dumas and political stalemate; Stolypin's policies – land reform, industry and use of oppression.
- The First World War: the impact of military defeats on Tsarist government; social and economic effects of war on cities and the countryside; unpopularity of the Romanovs, including the role of Rasputin; the Tsar's abdication.

**Part two: Lenin's new society**

- The Provisional Government: its failure to deal with Russia's social, economic and military problems; Lenin and Trotsky; the growth of Bolshevik organisation; the October/November Revolution.
- The impact of Lenin's dictatorship: the end of the First World War; the Cheka; the Red Army; causes, nature and consequences of the Civil War and Bolshevik success; propaganda.
- Social and economic developments: War Communism; the Kronstadt Rising; the New Economic Policy (NEP); the achievements of Lenin and Trotsky.

**Part three: Stalin's USSR**

- Stalin the dictator: the power struggle to succeed Lenin; the control of the Communist party over government; the Terror and the Purges; the army; secret police; labour camps; censorship; the cult of personality; propaganda.
- Stalin's modernisation of the USSR: collectivisation; the Five Year Plans; social and economic consequences for Kulaks, city dwellers, women, professional and industrial workers; the extent of modernisation.
- Impact of the Second World War: Stalin's wartime leadership; political, economic and social problems caused by the Great Patriotic War up to 1945.

Students will study the political, economic, social and cultural aspects of these developments and the role ideas played in influencing change. They will also look at the role of key individuals and groups in shaping change and the impact the developments had on them.

They will develop skills relating to:

- Source analysis
- Interpretation analysis
- Causation
- Significance

**Conflict and Tension: the inter-war years, 1918–1939****Part one: Peacemaking**

- The armistice: aims of the peacemakers; Wilson and the Fourteen Points; Clemenceau and Lloyd George; the extent to which they achieved their aims.
- The Versailles Settlement: Diktat; territorial changes; military restrictions; war guilt and reparations.
- Impact of the treaty and wider settlement: reactions of the Allies; German objections; strengths and weaknesses of the settlement, including the problems faced by new states.

**Part two: The League of Nations and international peace**

- The League of Nations: its formation and covenant; organisation; membership and how it changed; the powers of the League; the work of the League's agencies; the contribution of the League to peace in the 1920s, including the successes and failures of the League, such as the Aaland Islands, Upper Silesia, Vilna, Corfu and Bulgaria.
- Diplomacy outside the League: Locarno treaties and the Kellogg-Briand Pact.

This wider world depth study enables students to understand the complex and diverse interests of different individuals and states including the Great Powers. It looks at concepts such as national self-determination, ideas of internationalism and the challenges of revising the peace settlement. It focuses on the causes of the Second World War and seeks to show how and why conflict occurred and why it proved difficult to resolve the issues which caused it. This study also considers the role of key individuals and groups in shaping change, as well as how they were affected by and influenced international relations.

- The collapse of the League: the effects of the Depression; the Manchurian and Abyssinian crises and their consequences; the failure of the League to avert war in 1939.

### Part three: The origins and outbreak of the Second World War

- The development of tension: Hitler's aims and Allied reactions; the Dollfuss Affair; the Saar; German rearmament, including conscription; the Stresa Front; Anglo-German Naval Agreement.
- Escalation of tension: remilitarisation of the Rhineland; Mussolini, the Axis and the Anti-Comintern Pact; Anschluss; reasons for and against the policy of appeasement; the Sudeten Crisis and Munich; the ending of appeasement.
- The outbreak of war: the occupation of Czechoslovakia; the role of the USSR and the Nazi-Soviet Pact; the invasion of Poland and outbreak of war, September 1939; responsibility for the outbreak of war, including that of key individuals: Hitler, Stalin and Chamberlain.

### Assessment

- Self-assessment: against criteria and against model answers, content knowledge
- Peer-assessment: of exam style questions and low stake knowledge quizzes
- Teacher assessment: of understanding and empathy of the periods studied. Through exam style questions with mock exam in the Summer term and at the end of the module. Individual support and opportunities for challenge.

### Year 11

### Skills and Knowledge

#### Elizabethan England, c1568–1603

##### Part one: Elizabeth's court and Parliament

- Elizabeth I and her court: background and character of Elizabeth I; court life, including patronage; key ministers.
- The difficulties of a female ruler: relations with Parliament; the problem of marriage and the succession; the strength of Elizabeth's authority at the end of her reign, including Essex's rebellion in 1601.

##### Part two: Life in Elizabethan times

- A 'Golden Age': living standards and fashions; growing prosperity and the rise of the gentry; the Elizabethan theatre and its achievements; attitudes to the theatre.
- The poor: reasons for the increase in poverty; attitudes and responses to poverty; the reasons for government action and the seriousness of the problem.
- English sailors: Hawkins and Drake; circumnavigation 1577–1580, voyages and trade; the role of Raleigh.

##### Part three: Troubles at home and abroad

- Religious matters: the question of religion, English Catholicism and Protestantism; the Northern Rebellion; Elizabeth's excommunication; the missionaries; Catholic plots and the threat to the Elizabethan settlement; the nature and ideas of the Puritans and Puritanism; Elizabeth and her government's responses and policies towards religious matters.
- Mary Queen of Scots: background; Elizabeth and Parliament's treatment of Mary; the

This module will build on the skills that have started to be developed over the past 2 years.

The study will focus on major events of Elizabeth I's reign considered from economic, religious, political, social and cultural standpoints, and arising contemporary and historical controversies.

##### Case study

- Students will be expected to answer a question that draws on second order concepts of change, continuity, causation and/or consequence, and to explore them in the context of the specified site and wider events and developments of the period studied.
- Students should be able to identify key features of the specified site and understand their connection to the wider historical context of the specific historical period. Sites will also illuminate how people lived at the time, how they were governed and their beliefs and values.

The following aspects of the site should be considered:

- location
- function
- the structure
- people connected with the site eg the designer, originator and occupants
- design
- how the design reflects the culture, values, fashions of the people at the time

challenge posed by Mary; plots; execution and its impact.

- Conflict with Spain: reasons; events; naval warfare, including tactics and technology; the defeat of the Spanish Armada.

#### **Part four: The historic environment of Elizabethan England**

- Students will be examined on a specific site in depth. This site will be as specified and will be changed annually. The site will relate to the content of the rest of this depth study. It is intended that study of different historic environments will enrich students' understanding of Elizabethan England.
- The study of the historic environment will focus on a particular site in its historical context and should examine the relationship between a specific place and associated historical events and developments.
- The historic environment can be explored through the examination of Elizabethan buildings such as Tudor manor houses and their gardens, theatres and wider historic environments such as villages, towns and cities. Equally key historic developments and events such as voyages and trade, revolts, and battles were shaped by the historic environment in which they took place.

- how important events/developments from the depth study are connected to the site.

Students will be expected to understand the ways in which key features and other aspects of the site are representative of the period studied. In order to do this, students will also need to be aware of how the key features and other aspects of the site have changed from earlier periods.

Students will also be expected to understand how key features and other aspects may have changed or stayed the same during the period.

### **Assessment**

- Self-assessment: against criteria and against model answers, content knowledge
- Peer-assessment: of exam style questions and low stake knowledge quizzes
- Teacher assessment: of understanding and empathy of the periods studied. Through exam style questions with mock exam in the Summer term and at the end of the module. Intervention for those who need extra support involves more regularly checks on progress.

### **Support**

Students will be fully supported in every available way. All lesson material is available, along with revision guidance, exemplar answers and practice questions. A voluntary History clinic runs every Monday breaktime in H2, and the History Office has an open-door policy where students are welcome to come and discuss areas of uncertainty. Certain students in Y11 are selected for mentoring, whereby in exchange for a willingness to act on feedback, staff members provide individual support and mentoring has also been put in place with 6th form students who have previously sat the GCSE exams.

### **Stretch**

The History department aim to stretch and challenge students through imaginative and varied lessons, including debates, student-led presentations as well as more out of the box thinking with activities such as rap battles and panorama's of specific periods in history. Although not necessary, we fully encourage extra reading to enhance understanding of topics and through discussion are encouraged to alter their thinking about particular topics to have a greater appreciation for differing interpretations. Students have opportunities to engage with historians inside and outside of the classroom including by attending history lectures with the local branch of the Historical Association

### **Assessment**

In History, our assessment philosophy aims to ensure that feedback from teachers encourages improvement in students' skills, knowledge and understanding. Students are assessed regularly throughout lessons through questioning and other assessment for learning strategies. Formal assessments focus primarily on practice exam questions whilst pupils also undergo low stakes knowledge quizzes to encourage regular revision and allow staff to assess understanding. Students have a record of their assessments with

their targets to encourage regular reflection on their assessments. Students also perform peer and self assessment to encourage them to gain a deeper understanding of what to look for in their own answers.

## Impact

Students have the opportunity to participate in debates, improve research skills and be able to piece together different aspects of history and society. These develop crucial elements of character, with independent critical thinking, empathy and problem solving all highly valued by employers. Our curriculum is structured to allow generous time for discussion, and for consideration of others' opinions. In this way, learning activities, as well as the content of the course, promotes citizenship.

In addition, History is a fantastic facilitator subject and along with the content giving pupils a greater understanding of the world we live in the skills developed are easily transferable to a great range of professions and degree options ranging from law to medicine.

## Public Examinations

**AQA History GCSE course (8145).**

One two-hour exam containing:

- One written exam of 1 hour, worth 40 marks on Russia which makes 25% of the assessment.
- One written exam of 1 hour, worth 44 marks (including 4 for SPaG) on the Inter War period which makes 25% of the assessment.

A second two hour exam containing:

- One written exam of 1 hour, worth 40 marks (including 4 for SPaG) on Migration which makes 25% of the assessment.
- One written exam of 1 hour, worth 44 marks on Elizabeth I which makes 25% of the assessment.

The question types in these papers include source and interpretation analysis, short answer and extended discursive prose.

# Latin

## Aim and Purpose

On the face of it Latin does not have many uses – virtually nobody speaks it and whilst it does provide the basis for learning a lot of other languages, particularly romantic ones; it is actually much more useful and quicker just to learn that language rather Latin first. As an academic discipline, Latin is a subject of two halves. The first is language; the Latin language requires a very high level of logical deductive reasoning, as well as requiring a significant amount of data to be assimilated and applied within often complex structures. Success in this subject demonstrates very clearly that students can think logically and problem solve at a high level. The second half of the course focuses on literature; Latin prose and verse literature.

We study the texts in Latin. Each one is about 120 lines long, so are extracts from larger works. A successful candidate must demonstrate a very good ability to analyse and interpret works of literature both historical and poetical, and to frame well-structured cogent responses that are reinforced by examples from the texts studied. Whilst the text is in Latin and the examples are often in Latin the written answers that the candidates give are in English.

The broad skill base that one acquires from the pursuit of Latin is one that is not only applicable to any job but also makes you well sought after as an employee or graduate. It is precisely for this skill base that the top schools in the country still offer Latin, as they know how valuable the qualification is and they want to give their students the best chance of success in the future.

## Independent Learning

As Latin is a language there is an expectation that there will be a significant amount of independent learning done outside of lessons during the 3 years. In fact, the majority of homework will involve independent learning. This will involve learning:

- The defined vocabulary list
- Verb and noun endings
- The set text.

Skills for learning vocabulary and endings for words are established in Year 7 and Year 8. Skills for learning the set text are introduced in Year 10.

## Year 9

- The main focus of the Year 9 course is to consolidate the language points met in Year 7&8 as well as building on them by covering the bulk of the GCSE language curriculum. Sometimes the whole of the language course is completed in Year 9 sometimes it is completed early in Year 10. It largely depends on the progress of the class and the style of delivery of the teacher. During Year 9 the defined GCSE vocabulary lists are learned. The learning of the vocabulary list is key to early success in this subject. There are only six pages to learn and about half of the words will have been introduced during the previous two years. In the eventual exam only words from this list may be used by the examiners, so all students should know all words in the exam. This means that students are provided with every possible opportunity to assess their progress in learning these words and consolidate their vocabulary as a foundation for the literary focus of the course in Years 10 and 11.
- Whilst the Year 9 curriculum is heavily focused on language there are excellent opportunities to explore Rome's history. Throughout the Year 7&8 course we have progressed from the Trojan War through the Kings of Rome to the establishment of the Roman Republic. The Year 9 course follows on with tales from the early Republic, then moving on to the second Punic War featuring Hannibal and his major battles against the Romans. During these stories time is spent contextualising and amplifying the moments in Rome's history that are covered, bringing to life the civilisations that are met. This understanding about the Romans and the cultures that they meet is crucial both at GCSE and A level when writing longer responses to the literature texts; the Romans and the other cultures that are met do not necessarily share the same view on issues as we might do today.
- A fantastic array of Roman history is introduced throughout the year, and it is very well received when covered in class. These topics are not required specifically for the exam, but they are there to entertain, enrich and inspire the students to give them a composite view of the subject. It is also in this vein that students get to visit the University of Reading to experience an Ancient Classroom day. Within the work the students are taught literature and must translate Latin Roman style. As well as this the students are taught maths learning how to make complex calculations using a slate and beans instead of a calculator; taught some Classical Greek; and given a handling session of classical pottery in the Ure Museum.

## Assessment

- Throughout Year 9 there are regular assessments that are designed for students to reflect upon their learning and to identify specific areas in which they can improve. The assessments are short passages from Latin into English. The first few are at a standard similar to that at the end of Year 8; this is because rather than assessing the new language points, we are ensuring that the fundamentals of the language are secure and that the GCSE vocabulary lists have been learned properly. These assessments are done until about February half term, then the standard goes up to include some of the more sophisticated grammar covered during the year, and then finally we move onto full GCSE practice papers, which are introduced either towards the end of Year 9 or the beginning of Year 10 at the completion of the language curriculum.

## Years 10

- In Year 10 the language course is consolidated with students given to apply their vocabulary in increasingly complex and interesting contexts. The historical contexts of the stories have a broader range here. The text book follows the career of Julius Caesar in Gaul, Britain and Rome, and then leads into the lives of the early emperors up to Nero; whilst the GCSE practice papers will cover anything from the Trojan War through to the early emperors. Year 10 will also see the introduction of one of the GCSE set texts. Often the verse set text is taught first. This is because it is slightly more challenging for the boys to learn as the word order departs totally from that which is usually seen in the text book or the prose set text. The class will be furnished with a translation of the relevant sections as well as detailed context and style notes to aid their understanding of the work and the time in which it was written. The student ultimately must be able to read the Latin text in the exam unaided by a translation or dictionary, answer straight forward factual questions and be able to write extended answers on the work that has been studied; this could be either analysing the literary techniques of the author, character development or the themes, much as in English Literature. All questions and answers are written in English, though the passages will be in Latin and the student must quote in Latin. The study of literature in this manner at GCSE is unique to classical languages and is not attempted by modern languages until A level. It can take a bit of time for students to get the hang of studying the literature, but selections are chosen for their vibrant story lines and rich rhetorical content.
- There is always a choice of two text selections per module of which we must deliver one. For the verse set text we tend to study some selections from Virgil (the text for 2025 is yet to be confirmed). Virgil's Aeneid is a foundational story which tells of the hero Aeneas making his journey from the remnants of Troy via various places to Italy, where he is to successfully build a nation that will one day become Rome. This is a story which should in part be familiar as it features in a simpler form on the Year 7 course as the background for the translations. It is also studied at A level in Latin and will be taught in Classical Civilisation at A level and will certainly feature on any Classics degree course at university. So the knowledge and understanding of this component is built up over the whole curriculum.

## Assessment

- Whilst consistent low stakes testing is used to encourage regular vocabulary acquisition it is not uncommon for students to also do some form of set text assessment in the summer term. Furthermore, end of year exams are usually a language paper, which encourage application of a wide variety of skills developed through the year.

## Year 11

In Year 11 the language course continues to be consolidated with full GCSE practice papers done each half term to give students an opportunity to display improvement as in Year 10. The focus of the first term is the introduction of the prose set text, which is approached in the same manner as the verse. The prose can be covered a lot quicker than the verse, as many of the principles of study and stylistic analysis are common. The aim is to try to finish going through it in class by Christmas, so that the remainder of the year can be devoted to planning responses and refining techniques for the extended answers. The mock exams will consist of a language paper, but a proper set text exam is usually done around this time; this may or may not contribute to the mock result, as it depends whether the teacher believes the class are ready yet. Students usually are proficient at writing extended answer questions between February half term and Easter.

As with the verse there is always a choice of two text selections per module of which we must deliver one (the prose set texts are yet to be confirmed)

To help the students appreciate the content of their set texts and to aid with revising the verse set text, often the boys will be encouraged to act out and film their own dramatic version of the set text, whilst keeping as close as possible to the set text. This is a lot of fun, but also helps them to consider the pieces as a whole rather than isolated stylistic pieces of text. These varying texts will give the student a wide appreciation of the social and cultural aspects of Roman world as well as an insight into some of its greatest and most exciting military moments. Whilst the study of these selections is unlikely to be covered again at A level or at university, the appreciation of a prose style(s) of writing will prove fundamentally crucial when studying

prose literature beyond GCSE; as well as this the understanding gained about Roman society and culture is instantly transferable to any further study of the Roman world.

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## Support

The Classics department has a mentoring system where Year 12 students are available to assist boys in Years 9-11 once a week at lunch time.

## Stretch

- Staff will often go beyond the exam specification by expanding on the historical content of the translation passages that are met.
- Often AS level translations are introduced to stretch students that manage to achieve Level 9 before the end of the course.
- Educational Visits such as the ancient classroom visit to Reading University are not directly related to the specification but are to enrich the students studying of the subject.
- When delivering the set text staff will often go beyond the requirements of the GCSE curriculum.
- The department sometimes run activities and offer opportunities that are purely for enrichment though these vary from year to year.

## Public Examinations

### OCR - Latin

- Latin Language = 50% of final grade
- Verse Set Text = 25% of final grade
- Prose Set Text = 25% of final grade

# Mathematics

## Aim

The study of Mathematics at Reading School throughout key-stage 4 aims to ensure that all pupils:

- Become fluent in the fundamentals of mathematics. This is achieved through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.
- Recognise that mathematics permeates the world around us and appreciate the usefulness, power and beauty of mathematics
- Enjoy mathematics and develop patience and persistence when solving problems
- Understand and be able to use the language, symbols and notation of mathematics correctly
- Develop mathematical curiosity and use inductive and deductive reasoning when solving problems
- Become confident in using mathematics to analyse and solve problems both in school and in real-life situations
- Develop the knowledge, skills and attitudes necessary to pursue further studies in mathematics
- Develop abstract, logical and critical thinking and the ability to reflect critically upon their work and the work of others
- Develop a critical appreciation of the use of information and communication technology in mathematics
- Appreciate the international dimension of mathematics and its multicultural and historical perspectives.

## Purpose

The purpose and objectives of the key-stage 4 curriculum in Mathematics at Reading School can be broadly placed into one of four areas: increasing knowledge and understanding of mathematics and its applications, investigating patterns, the ability to communicate mathematically and having the maturity to reflect on their findings.

## Knowledge and Understanding

Knowledge and understanding are fundamental to studying mathematics and form the base from which to explore concepts and develop problem-solving skills. Through knowledge and understanding pupils will develop mathematical reasoning to make deductions and solve problems.

At the end of the key-stage, pupils should be able to:

- Know and demonstrate understanding of the concepts from the six branches of mathematics (number, algebra, ratio and proportion, geometry and measures, probability and statistics)
- Use appropriate mathematical concepts and skills to solve problems in both familiar and unfamiliar situations including those in real-life contexts
- Select and apply general rules correctly to solve problems including those in real-life contexts.

## Investigating Patterns

Investigating patterns allows pupils to experience the excitement and satisfaction of mathematical discovery. Mathematical inquiry encourages pupils to become risk-takers, inquirers and critical thinkers. The ability to inquire is invaluable in the study of Mathematics and contributes to lifelong learning.

Using mathematical investigations, pupils are given the opportunity to apply mathematical knowledge and problem-solving techniques to investigate a problem, generate and/or analyse information, find relationships and patterns, describe these mathematically as general rules, and justify or prove them.

At the end of the key-stage, when investigating problems, in both theoretical and real-life contexts, pupils should be able to:

- select and apply appropriate inquiry and mathematical problem-solving techniques
- recognize patterns

- describe patterns as relationships or general rules
- draw conclusions consistent with findings
- justify or prove mathematical relationships and general rules.

## Communication in Mathematics

Mathematics provides a powerful and universal language. Pupils at Reading School are expected to use mathematical language appropriately when communicating mathematical ideas, reasoning and findings—both orally and in writing.

At the end of the key-stage, pupils should be able to communicate mathematical ideas, reasoning and findings by being able to:

- Use appropriate mathematical language (notation, symbols, terminology) in both oral and written explanations.
- Use different forms of mathematical representation (formulae, diagrams, tables, charts, graphs and models).
- Move between different forms of representation.

Pupils are encouraged to choose and use ICT tools as appropriate and, where available, to enhance communication of their mathematical ideas. ICT tools can include graphic display calculators, screenshots, graphing, spreadsheets, databases, and drawing and word-processing software.

## Reflection in Mathematics

The curriculum in Mathematics encourages pupils to reflect upon their findings and problem-solving processes. Pupils are encouraged to share their thinking with teachers and peers and to examine different problem-solving strategies. Critical reflection in mathematics helps pupils gain insight into their strengths and weaknesses as learners and to appreciate the value of errors as powerful motivators to enhance learning and understanding.

At the end of the key-stage pupils should be able to:

- Explain whether their results make sense in the context of the problem
- Explain the importance of their findings
- Justify the degree of accuracy of their results where appropriate
- Suggest improvements to the method when necessary.

## Cross-Curricular Connections

A rich context for any mathematical activity will support the development of key concepts and processes as well as covering mathematical content and linking different aspects of mathematics together. Many contexts will also have the potential for linking with other subject areas. Some of the possible areas for cross-curricular connections in key-stage 4 are given below.

- Design activities e.g. designing a container, such as a barrel, to hold a fixed volume has the potential for a rich advanced activity by exploring suitable curves that could be used to model a barrel shape and finding volumes of revolution. Further investigation can be done with dynamic graphing software. Another activity is to design a container for packing tennis balls – this has the potential for exploring many aspects of geometry and measures, including circle properties. It can be further extended to more complex problems such as finding the dimensions of the smallest tetrahedron to package four balls (which includes the study of 3D trigonometry) and different ways of packing spheres to minimise the space occupied – which has links with science.
- Designs for living e.g. design activities that involve considering measurements of the human form can be rich sources of learning as not only do they tend to have links with science and design and technology, they can also incorporate a wide range of mathematical content from number, geometry and statistics. Examples include: design an emergency shelter/tent which could include considering the dimensions required to be able to fit two average people sleeping/sitting/standing or designing a bench for pupils to use in the school grounds.
- Using real-life data – there is tremendous potential for linking mathematics with other areas of the curriculum and exploring current issues. Pupils can develop the key process skills of representing, analysing, interpreting, evaluating, communicating and reflecting by asking their own questions and finding the data that enables them to answer them. Some possible examples include studying nutritional data and using such data to explore healthy lifestyle issues by comparing the calorie, fat, sugar and salt content of different types of meals or looking at the information on food packaging. A further example is the study of historical data to investigate patterns in deaths during a plague, using for example the data for the plague in the village of Eyam in 1665. As a final example the consideration of global data from such sources as The United Nations ([data.un.org](http://data.un.org)) and Census At School ([censusatschool.ntu.ac.uk](http://censusatschool.ntu.ac.uk)). Both institutions provide huge databases that pupils can use to find answers to questions about global citizenship and sustainable development, for example, how close are we to achieving the Millennium Development Goals?

## Independent Learning

The ability to learn independently in mathematics is an important but demanding challenge for most pupils but one that is important if they are to progress and achieve the top grades at GCSE and beyond. The level of difficulty of independent learning tasks will be decided by the class teacher and it will have the explicit aim of promoting learning and developing progress. The class teacher will be clear about the due date for any independent learning task and pupils will be made aware of how they can seek extra support if required. Independent learning in Mathematics is set with the aim of consolidating understanding of the subject content taught in lessons and will be carefully considered by the member of staff. In addition, teachers may set independent learning which entails reading through notes or revising. A flipped learning activity may also be set whereby pupils may be studying new topics or skills. It is expected that independent learning will be marked, and this marking will help motivate pupils to progress. Feedback to pupils will be consistent and may include written comments or oral feedback. There is an expectation at this key-stage that pupils will take greater responsibility for their learning and so there may be a considerably more independent learning that they will be expected to undertake. As an example, independent learning may consist of a formative assessment task and/or independent study.

## Curriculum Detail

As Mathematics is set by ability across all three years of the key-stage not all sets will cover the same amount of content each year and it is common for the top sets to explore additional topics either in preparation for advanced study or from beyond the confines of a formal examination setting. The table below therefore contains the common skills and knowledge that all sets will study over the three-year key-stage.

### All Years

### Skills and Knowledge

#### Develop Fluency

- Consolidate their numerical and mathematical capability from key stage 3 and extend their understanding of the number system to include powers, roots and fractional indices
- Select and use appropriate calculation strategies to solve increasingly complex problems, including exact calculations involving multiples of  $\pi$  and surds, use of standard form and application and interpretation of limits of accuracy
- Consolidate their algebraic capability from key stage 3 and extend their understanding of algebraic simplification and manipulation to include quadratic expressions and expressions involving surds and algebraic fractions
- Extend fluency with expressions and equations from key stage 3, to include quadratic equations, simultaneous equations and inequalities
- Move freely between different numerical, algebraic, graphical and diagrammatic representations, including of linear, quadratic, reciprocal, exponential and trigonometric functions
- Use mathematical language and properties precisely

#### Reason Mathematically

- Extend and formalise their knowledge of ratio and proportion, including trigonometric ratios, in working with measures and geometry, and in working with proportional relations algebraically and graphically
- Extend their ability to identify variables and express relations between variables algebraically and graphically
- Make and test conjectures about the generalisations that underlie patterns and relationships; look for proofs or counter-examples; begin to use algebra to support and construct arguments and proofs
- Reason deductively in geometry, number and algebra, including using geometrical constructions
- Interpret when the structure of a numerical problem requires additive, multiplicative or proportional reasoning

- Explore what can and cannot be inferred in statistical and probabilistic settings, and express their arguments formally
- Assess the validity of an argument and the accuracy of a given way of presenting information.

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### Solve Problems

- Develop their mathematical knowledge, in part through solving problems and evaluating the outcomes, including multi-step problems
- Develop their use of formal mathematical knowledge to interpret and solve problems, including in financial contexts
- Make and use connections between different parts of mathematics to solve problems
- Model situations mathematically and express the results using a range of formal mathematical representations, reflecting on how their solutions may have been affected by any modelling assumptions
- Select appropriate concepts, methods and techniques to apply to unfamiliar and non routine problems; interpret their solution in the context of the given problem.

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### Number

- Apply systematic listing strategies, including use of the product rule for counting
- Estimate powers and roots of any given positive number
- Calculate with roots, and with integer and fractional indices
- Calculate exactly with fractions, surds and multiples of  $\pi$ ; simplify surd expressions
- Involving squares and rationalise denominators
- Calculate with numbers in standard form
- Change recurring decimals into their corresponding fractions and vice versa
- Identify and work with fractions in ratio problems
- Apply and interpret limits of accuracy when rounding or truncating, including upper and lower bounds.

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### Algebra

- Simplify and manipulate algebraic expressions including those involving surds and algebraic fractions by: factorising quadratic expressions of the form  $ax^2 + bx + c$  including the difference of two squares
  - Simplifying expressions involving sums, products and powers, including the laws of indices
  - Know the difference between an equation and an identity; argue mathematically to show algebraic expressions are equivalent, and use algebra to support and construct arguments and proofs
  - Where appropriate, interpret simple expressions as functions with inputs and outputs; interpret the reverse process as the 'inverse function'; interpret the succession of two functions as a composite function
  - Use the form  $y = mx + c$  to identify parallel and perpendicular lines; find the equation of the line through two given points, or through one point with a given gradient
  - Identify and interpret roots, intercepts and turning points of quadratic functions graphically; deduce roots algebraically and turning points by completing the square
  - Recognise, sketch and interpret graphs of linear functions, quadratic functions, simple cubic functions, the reciprocal function, the exponential function and the trigonometric functions (with arguments in degrees).
  - Sketch translations and reflections of the graph of a given function
  - Plot and interpret graphs (including reciprocal graphs and exponential graphs) and graphs of non-standard functions in real contexts, to find approximate solutions to problems such as simple kinematic problems involving distance, speed and acceleration
  - Calculate or estimate gradients of graphs and areas under graphs (including quadratic and other non-linear graphs), and interpret results in cases such as distance-time graphs, velocity-time graphs and graphs in financial contexts
  - Recognise and use the equation of a circle with centre at the origin; find the equation of a tangent to a circle at a given point
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- Solve quadratic equations including those that require rearrangement algebraically by factorising, by completing the square and by using the quadratic formula; find approximate solutions using a graph
- Solve two simultaneous equations in two variables (linear/linear or linear/quadratic) algebraically; find approximate solutions using a graph
- Find approximate solutions to equations numerically using iteration
- Translate simple situations or procedures into algebraic expressions or formulae; derive an equation (or two simultaneous equations), solve the equation(s) and interpret the solution
- Solve linear inequalities in one or two variables, and quadratic inequalities in one variable; represent the solution set on a number line, using set notation and on a graph
- Recognise and use sequences of triangular, square and cube numbers, simple arithmetic progressions, Fibonacci type sequences, quadratic sequences, and simple geometric progressions and other sequences
- Deduce expressions to calculate the  $n$ th term of linear and quadratic sequences.

### Ratio, proportion and rates of change

- Compare lengths, areas and volumes using ratio notation and/or scale factors; make links to similarity including trigonometric ratios
- Convert between related compound units (speed, rates of pay, prices, density, pressure) in numerical and algebraic contexts
- Understand that  $X$  is inversely proportional to  $Y$  is equivalent to  $X$  is proportional to  $1/Y$ ; construct and interpret equations that describe direct and inverse proportion
- Interpret the gradient of a straight-line graph as a rate of change; recognise and interpret graphs that illustrate direct and inverse proportion
- Interpret the gradient at a point on a curve as the instantaneous rate of change; apply the concepts of instantaneous and average rate of change (gradients of tangents and chords) in numerical, algebraic and graphical contexts
- Set up, solve and interpret the answers in growth and decay problems, including compound interest and work with general iterative processes.

### Geometry and measures

- Interpret and use fractional and negative scale factors for enlargements
- Describe the changes and invariance achieved by combinations of rotations, reflections and translations
- Identify and apply circle definitions and properties, including: centre, radius, chord, diameter, circumference, tangent, arc, sector and segment
- Apply and prove the standard circle theorems concerning angles, radii, tangents and chords, and use them to prove related results
- Construct and interpret plans and elevations of 3D shapes
- Interpret and use bearings
- Calculate arc lengths, angles and areas of sectors of circles
- Calculate surface areas and volumes of spheres, pyramids, cones and composite solids
- Apply the concepts of congruence and similarity, including the relationships between lengths, areas and volumes in similar figures
- Apply Pythagoras' Theorem and trigonometric ratios to find angles and lengths in right-angled triangles and, where possible, general triangles in two- and three-dimensional figures
- Know the exact values of  $\sin \theta$  and  $\cos \theta$  for  $\theta = 0, 30, 45, 60$  and  $90$ , know the exact value of  $\tan \theta = 0, 30, 45$  and  $60$
- Know and apply the sine rule and cosine rule to find unknown lengths and angles
- Know and apply appropriate formulae to calculate the area, sides or angles of any triangle
- Describe translations as 2D vectors
- Apply addition and subtraction of vectors, multiplication of vectors by a scalar, and diagrammatic and column representations of vectors; use vectors to construct geometric arguments and proofs.

## Probability

- Apply the property that the probabilities of an exhaustive set of mutually exclusive events sum to one
- Use a probability model to predict the outcomes of future experiments; understand that empirical unbiased samples tend towards theoretical probability distributions, with increasing sample size
- Calculate the probability of independent and dependent combined events, including using tree diagrams and other representations, and know the underlying assumptions
- Calculate and interpret conditional probabilities through representation using expected frequencies with two-way tables, tree diagrams and Venn diagrams.

## Statistics

- Infer properties of populations or distributions from a sample, whilst knowing the limitations of sampling
- Interpret and construct tables and line graphs for time series data
- Construct and interpret diagrams for grouped discrete data and continuous data, i.e. histograms with equal and unequal class intervals and cumulative frequency graphs, and know their appropriate use
- Interpret, analyse and compare the distributions of data sets from univariate empirical distributions through: appropriate graphical representation involving discrete, continuous and grouped data, including box plots and appropriate measures of central tendency (including modal class) and spread including quartiles and inter-quartile range
- Apply statistics to describe a population
- Use and interpret scatter graphs of bivariate data; recognise correlation and know that it does not indicate causation; draw estimated lines of best fit; make predictions; interpolate and extrapolate apparent trends whilst knowing the dangers of so doing.

## Assessment

Teaching is taught in three teaching 'Blocks' per year. Each block culminates in a progress checkpoint which measures understanding of content covered. Following this there are opportunities for a review/extension week in which students will review and consolidate learning and complete multi-step problem solving questions. These progress checkpoints take place throughout all three years. They are supplemented by exams in years 9 and 10 and mock examinations in year 11, which prepares students for the exam style questions, timed conditions and the rigour of GCSE mathematics and Additional mathematics formal examinations.

## Support

Pupils are supported remotely through a well-organised and purposeful selection of materials on the Mathematics area of Sharepoint. This includes activities and practice questions for each topic, past examination papers, revision guidance and exemplar answers.

## Stretch

The policy of the Mathematics department has always been to stretch all pupils and the aim is to extend their Mathematical ability to the highest levels as quickly as they are able to cope. To this end we set in Year 8 and above. High achieving pupils are identified by staff at different times, as some pupils develop as they get older. Staff will identify such pupils by numerous methods including test results, examination results, performance in class including oral responses and through quality of homework.

It is important that the very able mathematicians are challenged and stretched. This can be done in a variety of ways and teachers of the higher ability sets are encouraged to stimulate these pupils as much as possible. Some pupils have their own individual schemes of work.

Topics well beyond the core curriculum are often taught to the whole set (e.g. A-level topics in this key-stage and UK Maths Challenges) or can be given to pupils to do in their own time, usually as investigations. Successful topics introduced at a very early stage have included group theory and complex numbers.

All pupils have the opportunity to be entered for the Intermediate Maths Challenges each year at this key-stage. Those pupils with the highest scores in the challenges are given the opportunity to progress to follow on rounds (Kangaroo and Olympiad). Mentoring is offered to pupils who progress to these latter stages.

A lunchtime school club (known as MIG) for interested pupils run jointly by staff and sixth-form pupils is also available.

The LRC contains many books of interest to develop an appreciation for Mathematics beyond the confines of the curriculum and the department has its own collection of Mathematics books that can be borrowed by arrangement with teaching staff.

Copies of the UK Maths Challenges and the Maths Olympiads (in the Maths offices) are an excellent source for 'puzzle' type questions. New puzzles and quizzes are regularly displayed in both the Page and South House buildings.

A small number of pupils are also involved in the Olympiad mentoring schemes run outside of school and are sent problems via their own email. These pupils each had their own dedicated mentor and work schemes which will need adapting as they progress through the school.

## Assessment

It is important in Mathematics that pupils' work is marked and assessed soon after it has been completed. Marking is not necessarily all completed by the classroom teacher and at key-stage 4, where pupils are typically set two homeworks a week, it is the norm for one of them to be marked in class and only one by the teacher.

Written feedback will be made where appropriate and, in almost all circumstances, will be positive and give encouragement. Feedback will be given regularly and enable pupils to identify targets for progression.

Other pieces of work, for example, end of topic tests and summative assessments, may be marked numerically, but it is important that pupils know what mark is good, satisfactory, and so on.

Many of the textbooks used at this key-stage have answers in the back and pupils are encouraged to mark their own work by sensible use of these answers. However, regular checks are made by the classroom teacher with regards to presentation and learning by marking selected pieces as well as setting regular tests and formal assignments.

Not only are homeworks marked, but they are considered and gone through in class. This does not necessarily mean going through every point but picking out obvious problems and putting right any faults in basic techniques.

In Year 11 when preparing for the GCSE and Additional Maths examinations past papers will be considered and assessed according to the published mark schemes. Assessment, on occasions, will be done by the pupils themselves (to promote independent learning and an understanding from the pupil of what is expected to obtain each mark), or more formally by the teacher. The quantity and detail of formal marking and feedback at this stage is left to the individual teacher but will ensure that pupils understand the exam requirements, and an indication of exam level performance will be evident.

## Impact

Mathematics has several very useful benefits to our mind if we go into its study and this curriculum has been designed to ensure that the pupils see these benefits. It will develop their ability to reason, encourage analytical thinking and quicken the mind. Mathematics is more than a subject that everyone in school needs to take. Many believe that mathematics is only needed in the Science, Technology Engineering and Mathematics fields (STEM). That's true, maths is essential in those fields, but it is also needed in many other fields including economics, many of the social sciences such as psychology and sociology, and in many of the arts and humanities disciplines including art, music, and mass communications. Mathematics has been called "the universal language".

Numbers and mathematics help us keep score—not just in sports contests, but in measuring money, time, distance, cooking and baking, balancing a cheque book, planning an improvement project, and buying the necessary materials. Building an extension to a house or finding the amount of material to build a fence are both good examples of mathematics in our daily lives.

Logic and quantitative reasoning attained in mathematics helps us make better decisions. Learning how to solve the hard challenges that you will face during this key-stage is an asset that will pay dividends throughout your life. We also use numbers and mathematics for leisure. We play card games, electronic games, crossword puzzles, and Sudoku's. They all share a common element of mathematics.

In summary, a solid foundation in mathematics is an essential skill for pupils pursuing any academic degree and that same quantitative capability is necessary for success in life as well.

## Public Examinations

### Pearson Edexcel GCSE (9-1) in Mathematics (1MA1)

The GCSE examination comprises of three externally-assessed examination papers (of equal weighting) each worth 80 marks. The first of the three papers is non-calculator. All three-examination papers are 90 minutes in duration and can cover any of the examinable content. All pupils are entered for the Higher tier where grades 4 to 9 are available.

### OCR FSMQ Additional Mathematics (6993/01)

Alongside their GCSE study, students at KS4 will also study aspects of the Free Standing Mathematics Qualification (FSMQ): Additional Mathematics. The KS4 curriculum and scheme of work is designed such that all students will have opportunities to extend their understanding of certain topics to the FSMQ level where appropriate. Decisions as to who will sit the FSMQ: Additional Mathematics qualification will be made in Year 11 following the GCSE and Additional Maths MOCK examinations.

This Level 3 FSMQ builds on the skills, knowledge and understanding acquired during the GCSE course. It consists of four main 'pure' mathematics topics (Coordinate Geometry, Pythagoras and Trigonometry, Calculus and Exponential and Logarithms) each of which contains an 'applied' dimension, and two numerical topics (Enumeration and Numerical Methods), all underpinned by an Algebra section. This qualification will encourage pupils to:

- develop fluent knowledge, skills and understanding of mathematical methods and concepts
- acquire, select and apply mathematical techniques to solve problems
- reason mathematically, make deductions and inferences and draw conclusions

- comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context
- develop confidence in using mathematical techniques in a variety of ways.

Additional Maths consists of one component that is externally assessed. The examination consists of one two-hour paper, which assesses all of the Assessment Objectives. The total number of marks available in the examination paper is 100 with pupils answering all the questions. The assessment has a gradient of difficulty and consists of a mix of short and long answer questions. In each question, pupils are expected to support their answers with appropriate working. Pupils are permitted to use a scientific or graphical calculator in this examination. The assessment will contain some synoptic assessment, some extended response questions and at least one unstructured problem-solving question. A formulae sheet will be included at the beginning of the examination paper. Unlike GCSEs, Additional Maths is graded on the scale: A, B, C, D, E, where A is the highest.

# Music

## Aim

Creativity and musical introspection are at the forefront of the Music curriculum and co-curricular musical activities at Reading School. Music enables people to communicate in the most fundamental way – through sound – and this communication covers the whole of the emotional spectrum. The skills learned here, whilst rooted in music, are cross-curricular and feed into every other subject and area of life irrespective of how musical you are or perceive yourself to be; music is the truest life skill. Students develop an in-depth understanding of music from the Baroque era to present day, studying the intricacies of Bach to West End musical theatre. Consequently, they are able to analyse, discuss and contextualise these fundamentals in reference to any style of music from around the world. They are able to interpret and compare music and its construction through aural skills and extended writing. They are exposed to music dating back over 400 years and able to establish and grasp a chronological understanding of development and musical influence and stylistic association.

## Purpose

The GCSE Music course is designed to allow the study of Music through the experience and integration of performing, composing, listening and appraising. The use of Music Technology falls within the parameters of both the composing and performing elements and is a current area of development for Reading School with the ongoing development of our music-based IT infrastructure. The course recognises that we live in an age of cultural diversity and thus includes a wide range of prescribed musical styles. The flexible nature of the course allows students to capitalise on different musical interests. The GCSE Music course is an extension of class work done in Key Stage 3 and caters for a wide spectrum of musical abilities. It gives students the opportunity to make music, both individually and in groups, to develop a life-long interest in music and to progress to further study.

## Cross-Curricular Connections

Given the inherent natural musical ability that exists in us all, Music is perhaps the subject with the widest range of interdisciplinary connections.

### Music is Maths

- Music is divided into different fractions of time. The brain processes mathematical and musical patterns in the same way, looking for repetition and symmetry. Many great works of music have been shown to be structured according to the 'Golden Ratio', which is formed from the Fibonacci sequence.

### Music is a Language

- Music is the universal language, understood all over the world. Studies have shown that people from widely different backgrounds and cultures can listen to the same music and identify the same emotions from it. The listening skills used in playing music are very similar to the listening skills needed to learn a new language. Learning to read and write music gives you the opportunity to communicate your ideas or emotions in a different way.

### Music is Science

- Music is the measure of time through sound. It can be broken down into exact scientific measurements: pitch is measured as the frequency of sound waves, dynamics as volume in decibels, tempo as beats per minute. Listening to music alters the chemicals in our brains. Playing music is one of the only activities that uses the whole brain at once, making connections between the visual, auditory and motor cortices.

### Music is History

- Music has played a huge part in nearly every human culture throughout history. The oldest musical instruments discovered are a pair of flutes made by cavemen over 42,000 years ago. Musical styles and instruments have changed according to the fashion and technology of the times, from prehistoric flutes, to violins, to electric guitars and the computer generated sounds of today. Many historical figures, including Henry VIII, Gandhi and Einstein were accomplished musicians.

### Music is Physical

- Singing or playing an instrument requires great control over many muscles in your body. A singer or wind player must be able to control their breathing with their diaphragm. Instrumentalists need to control their fingers, and require excellent muscle memory in order to remember how to play certain notes. All of this physical control must be quick to react to any change in the music we are playing.

## Music is Art

- Art is a way of expressing thoughts, feelings and ideas without the need for words. It needs imagination and creativity. Drawings of paintings are art to be looked at, whereas music is art to be listened to. Art is what brings all the other aspects of music (the science, the maths, the physical ability, the language, the history) together.

## Independent Learning

Students are set regular homework tasks that relate to and consolidate current learning areas. They are encouraged to self-motivate with regard to listening outside their comfort zones and expanding their stylistic knowledge in relation to the prescribed AoS. Students should develop the ability to 'listen to' rather than just 'hear' music; they should establish a desire to understand the creative complexities behind a composition/recording and be able to use their aural skills to isolate individual musical lines. A wider understanding of the exam and coursework requirements is gained through regular practice and by using exempla material of previous submissions in order to establish a suitable and personal target level which can be reached. Up to date accredited learning resources are in the Music School and LRC for reference and research.

## Year 9

### Skills and Knowledge

#### Advanced Theory and Composition/Solo and Ensemble performance

- More regular performances, both solo and ensemble (with your music GCSE peers)
- Introduction to scoring for orchestra
- Composition lessons – more mature melody writing; harmonisations
- Developing music theory to higher levels
- Analysis of music in various medium
- Short projects working in unfamiliar groups to develop creativity, communication, leadership and team skills.
- Developed aural skills – interval recognition
- Developed understanding of harmony, key signatures etc.
- Regular performances
- Peer feedback and critique
- Written skills when analysing music

## Assessment

- Performance assessed against the Edexcel GCSE criteria
- Music theory tests
- Completed orchestral composition marked against Edexcel GCSE criteria
- Revision Exercises including regular written and spoken exercises used to conclude and link substantive knowledge.

## Years 10

### Skills and Knowledge

#### Set Works

- Bach – Brandenburg Concerto No 5 MVT III
- Queen – Killer Queen
- Steven Schwartz – Defying Gravity
- John Williams – Star Wars Opening Theme
- Beethoven – Pathetique Sonata MVT I
- Listening exercises
- Critical analysis
- Peer discussion
- Simple written analysis tasks
- Practical exercises relating to performance within the given stylistic AoS

#### Composition Coursework

- Film music
- Pop Song
- Chamber music

General performance preparation – solo & ensemble

## Assessment

- Self-assessment against criteria and model answers. Self-evaluation of success of practical tasks.

- Peer-assessment including feedback and critique of performances and practical work.
- Teacher assessment based on observation of analysis process; performance feedback; assessment of written work with clear written feedback where appropriate.
- Revision exercises including regular written and spoken exercises used to conclude and link substantive knowledge. Introduction of exam-style written exercises for group and individual assessment. Emphasis on clarity of written responses and use of appropriate musical/technical language.

## Year 11

## Skills and Knowledge

### Set Works

- Purcell – Music for a While
- Afro Celt Soundsystem – Release
- Esperanza Spalding – Samba Em Preludio

### Composition Coursework

- Briefed compositions given to us by the Edexcel exam board

- Listening exercises
- Critical analysis
- Peer discussion
- Exam-style written analysis tasks
- Practical exercises relating to performance within the given stylistic AoS

General performance preparation – solo & ensemble

### Coursework Portfolio

- 1 Brief Composition – <2 minutes
- 1 “Free” Composition - <2 minutes
- 1 Solo Performance – Grade 4 standard or higher

1 Ensemble Performance - – Grade 4 standard or higher

### General Revision Programme

- Music Theory
- Dictation exercises
- Musicianship exercises
- Consolidation and review of all set works

- Listening exercises
- Critical analysis
- Peer discussion
- Exam-style written analysis tasks
- Practical exercises relating to performance within the given stylistic AoS

## Assessment

- Self-assessment through critical review of written responses and creative portfolio
- Peer-assessment of creative portfolio
- Teacher assessment of written and practical tasks with examiner standard feedback. Targeted support and stretch based on individual needs and development.
- Revision exercises part of the weekly timetable. Quick-fire quizzes to test speed of reaction to question.
- Mock examination and past papers.

## Support

Students are supported with Edexcel accredited learning and revision packs. All lesson material is shared with students through OneDrive along with exam-style questions and exempla material. Y11 students are timetabled weekly 1-2-1 tutorials in the run-up to the coursework deadline. The Music School is also staffed and open to students in Y11 in the week before the summer term commences in order to support revision and coursework targets. Y11 students are further encouraged to attend drop-in sessions during study leave should they need further support.

## Stretch

The Music department stretches and challenges students through scaffolded questioning and student-led activities. This includes presentations and creative group tasks as well as peer feedback. Students are encouraged to learn beyond the curriculum and this is evident in the AoS lessons that go well beyond the framework of the current specification in order to fully contextualise and develop understanding.

## Assessment

The Music department places great emphasis on focussed and individual feedback. This can be either written or the result of a conversation. Students are encouraged to 'go for it' in all areas of the course and not to be afraid of giving a wrong answer. Mistakes are a fundamental part of growth and learning – without them we would stagnate. Students are pre-warned of larger revision exercises with regard to timing and content so that they can prepare. We employ a range of assessment techniques in order to develop communication skills and consolidate knowledge that can be easily recalled.

## Impact

Students have an array of opportunities beyond the classroom which support the curriculum. These include the numerous ensembles that rehearse weekly as well as our annual Masterclass series and workshops with visiting experts. These not only develop and enhance fundamental musical skills such as pitch and rhythm but also present students with real-world experiences and opinions. Students are encouraged to become 'musical ambassadors' for the school and to lead younger students by example – this is especially true in the annual House Music Competition. The diversity of Music at KS4 allows students to experience different cultures and styles from those they would normally and voluntarily enjoy. The communication and team skills learned within this course are transferrable to the wider world and allow our students to become strong leaders.

GCSE Music provides a solid foundation for the AS/A level in Music and is an excellent entrance subject for university - Admissions Tutors look for well rounded, confident and culturally aware students. The music and entertainment industry is big business in the UK and GCSE Music could pave the way to a career within the industry. These might include artist management, accountancy, copyright law, events management, journalism, performer, publisher, sound engineer, tv/radio presenter or even teacher. Perhaps most importantly Music is a skill for life and provides opportunity for enjoyment, leisure, participation and social interaction.

## Public Examinations

Students who complete this course will be more than able to enter the OCR GCSE Music course which is assessed through:

- Performance (vocal or instrumental) (30%)
- Composition (30%)
- Written examination of 1 hours 30 minutes (Listening & Appraising, Aural Recognition and context unheard/unfamiliar music from within the 4 Areas of Study) (40%)

# Photography

## Aim

We live in a visual culture, where we have never been exposed to so much visual imagery. Photography is about looking, learning, thinking, and communicating ideas. Photography means “drawing with light”, with contemporary photographers using a range of digital and analogue techniques to create images that make a personal statement about things that interest or concern them. The most exciting aspect of photography is that you are capturing the world as you see it.

An education in Art and Design: Photography at Reading School should lead to a better understanding of the visual world and provide opportunities for pupils to develop their own visual language and the capacity to make informed, critical judgments. As visual communication is of such importance, this should help pupils to express themselves more effectively and help them understand how ideas and information are communicated. A strong visual education can give young people an appreciation of why art matters, where it comes from, and where it fits in a wider social, historical, and political context. As well as being an enjoyable subject to study, Photography helps pupils to better understand both themselves and the wider world by looking at what has been created by others before them.

## Purpose

Photography is defined here as the practice of creating durable static or moving images by recording light with light-sensitive materials such as photographic film or digitally by means of an image sensor. It includes still photography and other lens-based media. Pupils learn the science, craft, and art behind photography, what good photos can be and how to take them, and how to edit digitally to sympathetically enhance your photographs. Photographers learn how to analyse and critique their own work and the work of others, investigating a range of critical references that will inspire in their own practice.

Pupils undertaking this title must explore practical and relevant critical and contextual sources such as the work of historical and contemporary photographers and the different purposes, intentions and functions of photography as appropriate to their own work. Photography and other light and lens-based media are frequently used to document, record and to provide a visual source of information for other areas of study. Photographers must demonstrate the ability to work creatively with processes and techniques appropriate to the chosen area study such as: photograms; pinhole cameras; digital processes; time-lapse photography; stop-frame animation; installation; film; video; animation; photomontage; digital manipulation of images.

Outcomes can be screen or print-based, comprise still or moving images. In order to provide sufficient opportunities for research into contemporary practice, pupils can explore practitioners working in such areas as advertising, photojournalism, fashion, wildlife, industrial and technical photography, high street photography studios and film, television and video.

In this subject, we seek to challenge and support our pupils so that they are able to grow into being the most confident, competent photographer they can be. We aim to provide a stimulating teaching environment, focusing on the process of making by offering the use of a broad range of media, materials, and techniques so that pupils have a rich experience that prepares them well for their future life, and enables pupils to succeed. Alongside learning by doing, the thoughtful exploration of critical and contextual references is similarly valued, as well as broader reflection on issues and events that influence our lives and practice.

Over the course of three years, our photographers try out new techniques, materials, and processes, and, by repeated reflection on their practice, learn over time on how best they can improve, so that their work shows increasing levels of skill and refinement. As pupils move through the course, less emphasis is put on direct artist-teacher instruction as pupils increase in confidence and competence, with the aim being that pupils are able to work more independently in Year 11; this better prepares them for post-16 courses, and puts the emphasis on their own actions. Given the individual strengths and weaknesses of each pupil, support is matched to the needs of the learner, with artist-teachers offering personalised diagnostic feedback on work each week.

Boundaries between Art, Craft, and Design are porous, so individual projects might involve a combination of materials, processes and technologies. Working with a variety of materials, media, processes, tools, and technologies arouses pupils' curiosity, helps encourage intrinsic motivation that produces sustained concentration and pride in accomplishment, creating a greater capacity for self-motivation, and developing skills as a learner. Pupils are supported to take creative risks and encounter challenge and indeed failure, so that they can learn coping strategies when not all goes well. Emphasis is put on the process of making - the gaining of skills, knowledge, and understanding - rather than purely on the outcome, as this will help ensure pupils show the most creative growth, and become competent, confident artists, makers, and designers who are able to work independently.

Projects are carefully scaffolded in terms of content so that as pupils demonstrate more competence and skill, they are given more freedom in terms of how they develop outcomes, or which critical reference they wish to further explore, with the aim that when pupils start their Major Project towards the end of Year 10, they are well-equipped to make informed choices as to their chosen area of focus.

## Cross-Curricular Connections

As well as developing practical and creative techniques in a range of media, studying Photography gives pupils skills in using different types of equipment and processes, for example pinhole photography, drawing through light, and transforming surface. Learning about different critical and contextual references and the people and cultures involved also encourages pupils to broaden their perspectives.

Transferrable skills acquired by studying the subject are useful and valued in a wide range of subjects and contexts, both inside and outside of the classroom. Alumni show strength in:

- observational, research, and analytical skills
- problem solving creatively
- their ability to manage their workload to meet deadlines
- their ability to develop and realise individual ideas and collaborate with others
- their ability to reflect upon and learn from criticism, and be objective about work
- their openness to new influences and concepts
- cross-cultural and interpersonal acceptance and understanding

## Support

In Photography we strive to offer a supportive learning environment where pupils are challenged to achieve their best, no matter their individual level of ability, cultural background, additional learning needs, or previous art experience. We take the approach that all pupils are artists at an early stage of development, and aim to treat them as such. We have high expectations of all our learners, and work hard to build positive working relationships with pupils. During lessons, staff engage in critical one-to-one and group diagnostic conversations with pupils that aim to encourage self-reflection and increasing independence, whilst referring to the criteria that have been provided for the task at hand.

As part of the broader community of practice within the department, there is a strong culture of pupils across different years supporting each other. As pupils progress through the course, scaffolds are provided for different projects that explicitly outline criteria for tasks, their links to the GCSE assessment objectives, and submission deadlines, so that pupils can see in advance what is required so they can better balance their workload. Homework and associated resources are uploaded onto Microsoft Teams so that pupils may access information outside of lessons.

## Curriculum Detail

The three years of the course have been designed to allow pupils to develop knowledge and understanding through a variety of learning experiences and approaches, including engagement with sources. This will allow them to develop the skills to explore, create, and communicate their own ideas. Pupils will demonstrate these skills through the development, refinement, recording, realisation, and presentation of their ideas through a portfolio and, in Year 11, by responding to an externally set assignment. As pupils progress, expectations with regards the quality and quantity of work are increased.

### Year 9

### Skills and Knowledge

**By working through practical projects based around a theme, pupils will develop practical and theoretical knowledge and understanding of:**

- Relevant materials, processes, technologies and resources
- How ideas, feelings and meanings can be conveyed and interpreted in images and artefacts
- How images and artefacts relate to the time and place in which they were made and to their social and cultural contexts
- Continuity and change in different genres, styles and traditions
- A working vocabulary and specialist terminology

**By repeated practice, increasing competency, refinement, and sophistication will be shown as the course progresses. Pupils will do this by working through practical tasks, reflecting upon their progress, and responding to feedback.**

**Pupils will develop the skills to:**

- Record experiences and observations, in a variety of ways using drawing or other appropriate visual forms; undertake research; and gather, select and organise visual and other appropriate information
- Explore relevant resources; analyse, discuss and evaluate images, objects and artefacts; and make and record independent judgements
- Use knowledge and understanding of the work of others to develop and extend thinking and inform own work
- Generate and explore potential lines of enquiry using appropriate media and techniques
- Apply knowledge and understanding in making images and artefacts; review and modify work; and plan and develop ideas in the light of their own and others' evaluations

- Organise, select and communicate ideas, solutions and responses, and present them in a range of visual, tactile and/or sensory forms

## Assessment

An exploratory year where pupils are trying out new media and techniques, and refining their practice through undertaking a series of short practical tasks. For example, the introductory project explores key technical aspects of photography through different photographic processes and critical references, alongside observation and recording.

### Years 10 and 11

### Skills and Knowledge

**Pupils are introduced to a variety of learning experiences, which encourage the development of skills through the use of appropriate media, processes, techniques and technologies relevant to Art and Design and related area(s) of study.**

**Pupils should show knowledge, understanding and skills in the development of their personal work informed by first-hand experiences and appropriate secondary sources.**

**Pupils are encouraged to progressively develop their own strengths and interests in the subject and, increasingly, follow their own lines of enquiry.**

Pupils will be expected to demonstrate overarching knowledge and skills in the context of their chosen area(s) of photography.

Pupils will be required to demonstrate skills in all of the following:

- the ability to explore elements of visual language, line, form, colour, pattern and texture in the context of photography
- awareness of intended audience or purpose for their chosen area(s) of photography
- the ability to respond to an issue, theme, concept or idea, or work to a brief or answer a need in photography
- appreciation of viewpoint, composition, aperture, depth of field, shutter speed and movement
- appropriate use of the camera, film, lenses, filters and lighting for work in their chosen area(s) of photography understanding of techniques related to the production of photographic images and, where appropriate, presentation and layout.

Pupils must show knowledge and understanding of:

- relevant materials, processes, technologies and resources
- how ideas, feelings and meanings can be conveyed and interpreted in images and artefacts created in their chosen area(s) of photography
- historical and contemporary developments and different styles and genres
- how images and artefacts relate to social, environmental, cultural and/or ethical contexts, and to the time and place in which they were created
- continuity and change in different styles, genres and traditions relevant to photography
- a working vocabulary and specialist terminology that is relevant to their chosen area(s) of photography.

## Assessment

### Year 10

- Autumn + Spring Terms – Foundation project: This focuses on observing and recording, experimentation with different media and techniques, and using critical references as inspirational starting points, with pupils gaining new skills and refining their work as they progress. Photographers are set a series of tasks based around particular technical aspects, techniques, or critical references, producing work in response to the given starting point.
- Summer Term – Major Project: This gets underway after a class trip to an inspirational venue, with pupils choosing their own individual area of focus; this can mean that every pupil's project has a different theme, so progress is supported through project sheets that link work required with the GCSE assessment objectives, with final outcome/s produced that clearly link to the chosen theme. This continues into the Autumn term of Year 11.

### Year 11

- Autumn Term – Continuation of Major Project followed by final outcome/s produced.
- Spring-Summer Terms – Externally Set Assignment (ESA) begins in January; this is set by the examination board EDUQAS, with the pupils producing a body of preparatory work leading up to a final outcome that is produced in 10 hours under controlled conditions.

## Assessment

During lessons constructive oral feedback is provided by staff that is diagnostic in nature, and tailored to the individual strengths and weaknesses of each pupil. Criteria for tasks are shared with the class, so that pupils are aware of what they need to work

towards with regards technical requirements, formal qualities, media and technique, or critical and contextual references. Referring back to these criteria, areas for improvement are suggested, with the expectation that pupils act promptly upon feedback given, so that their work can be seen to improve in terms of quality.

In addition to individual feedback from staff, group critiques offer pupils the opportunity to view the work of others, gaining ideas from their peers and offering constructive feedback as to how work could be improved. The nature and depth of questioning, and the balance of teacher or pupil-led discussion changes over the course of the three years. The concepts discussed are increasingly complex and nuanced, with pupils becoming more competent at independent critical analysis, and more confident in talking about their own work.

Individual pieces of work are not graded, so that pupils are best able to focus on the feedback given as this is the surest way to improve their work. Review grades looking at Curiosity, Perseverance, and Reflection are provided in accordance with the whole school assessment cycle; these grades consider the individual pupil's progress across the term when thinking about their own level of ability, attitude in class, and consistency in meeting deadlines. From the end of Year 10 onwards, projected GCSE grades are provided as part of whole school assessments.

At the end of the Year 11 course, coursework is marked by staff following standardisation materials provided by the examination board EDUQAS; these marks are submitted to EDUQAS, with a sample of work from both units of work reviewed by a visiting moderator to ensure that staff have followed the processes and marking criteria given.

## Impact

Feedback from pupils currently on art and design courses offered is overwhelmingly positive. Pupils most frequently say that they appreciate the practical aspects of the subject, that it allows them to use their imagination, and that it helps them creatively express their thoughts and feelings, which they do not always find in other subjects. Individuality in their making helps them take pride in the work they produce, and they feel they have a greater sense of freedom in what they can do in lessons. They enjoy experimenting with new media and techniques, and that they have to move outside of their creative comfort zones, which they can often find challenging but enjoy learning new skills.

Showing the value and transferrable skills learnt from the subject, recent alumni from the Art department have gone on to study a diverse range of courses in the creative industries and beyond, such as Architecture, Fine Art, Animation, Computer Science, Engineering, Medicine, Physics, English Literature, and Mathematics. Institutions attended are again varied, for example Bath, Cambridge, UCL, Oxford Brookes, Nottingham, Cardiff, Sheffield, and Bournemouth. For those pupils who did not go onto further study in the creative arts, many get in touch with the department to let staff know they are still creating their own artwork in their free time, showing how their education in the arts helped engender lifelong learning and enjoyment.

## Public Examinations

### WJEC Eduqas GCSE Art and Design (Photography) C656QS

#### Component 1: Portfolio

A portfolio of practical work that in total shows explicit coverage of the four assessment objectives. It must include a sustained project evidencing the journey from initial engagement to the realisation of intentions and a selection of further work undertaken during the pupil's course of study.

- No time limit - 60% of GCSE

#### Component 2: Externally Set Assignment

Pupils respond to their chosen starting point from an externally set assignment paper relating to their subject title, evidencing coverage of all four assessment objectives.

- Preparatory period followed by 10 hours of supervised time - 40% of GCSE

The ability to handle materials, techniques and processes effectively, skilfully and safely underpins all the assessment objectives. It is important in enabling pupils to develop a personal language, to express ideas and to link their intentions to outcomes in a confident and assured manner.

# Physical Education

## Aim

Our aim in PE and Sport is to support academic excellence and character development through physical activity. We aim for every student to leave Reading School at the end of year 13 with a love of physical activity. A high-quality physical education at Reading School inspires its students with intellectual curiosity about the physiological and psychological way in which the body interacts in sport, as well as the impact that teams, media and sponsors have. Students will develop the skills necessary to physically train for sport and analyse a range of data, gathered through testing methods and compare this against their elite sporting idols. They will be able to interpret how decisions are made within the context of a sporting environment, how to develop these with the correct guidance and feedback. Students will immerse themselves in sport through looking at different perspectives, and experiences they will learn to see the sporting world differently. <sup>(66)</sup>

## Purpose

GCSE PE as an option choice from year 9 covers a wide variety of theory content, looking at physiology, psychology and sociology of sport which leads to a deep understanding of the sporting world. Students are also assessed practically in three sports of their choice and will get the opportunity to further develop their performance level in their chosen sports as well as try new activities. In core PE from year 9 onwards, students will cover fitness training, fitness components, and fitness testing, indoor games, wrestling and athletics. In games afternoons they will cover football, rugby, cricket and athletics as major sport. They will have the opportunity to choose basketball, badminton, table tennis and climbing as minor sports options. Topics are chosen for their ability to inspire a curiosity in their own human body, and to deepen student understanding of the difference between a professional athlete, a member of the public and a person that chooses not to exercise. These comparisons across physical activity demographics throughout the course enables students to bring to bear their own contextual knowledge, engaging them in the subject, whilst exposing them to unfamiliar contexts gives them a sense of perspective valued by employers. The topics chosen, build on the foundations that are laid in core PE lessons in Years 7-8, where similar ideas are floated, yet a more critical approach is fostered at KS4. The topics studied are sequenced to look at physiological aspects of the activity and psychological aspects of activity, in order that students recognise the inherent interplay between the two. Students are also able to develop their own sporting ability through the practical nature of the course, starting with an experience of a wide range of activities before focusing on 3 sports in their final year. The complexity of discussion grows over the course, as, through a growing bank of place knowledge, students are able to interlink the two elements with the tools to recognise the complexity of an issue and apply understanding in unfamiliar contexts.

## Cross-Curricular Connections

Physical education is an inherently interdisciplinary subject that unites the sciences of biology, chemistry and physics with the social sciences in the body of psychology and sociology. Physical education also applies the understanding of contemporary sporting issues, enhancing students' interpretation of economics, sponsorship, and the historical background of sports and their origins. Insightful analysis of this data requires manipulation and processing of data, something which mathematicians relish. Physical education students have relished the interdisciplinary nature of the course because of its breadth and depth of subject knowledge and have demonstrated that modules are particularly well-suited to compliment other subjects content within school.

Within a student's KS4 experience at Reading School, their learning in PE will have particular, but not exclusive, overlap with the following subjects:

- Biology – anatomy and physiology
- Chemistry – gaseous exchange and performance enhancing drugs
- Physics – lever systems, planes and axis of movements
- Economics – commercialisation of sport
- Politics – sport and politics
- History – origins and development of sports
- Mathematics – use of data within sport
- ICT – use of technology in sport

**Independent Learning Paper 1****Skills and Knowledge**

- The Anatomy and physiology of the human body
- Structure and function of the heart and lungs
- Anaerobic and aerobic exercise
- Movement analysis
- Physical training methods

- Identifying the inter-relationships among phenomena
- Ability to critique the reliability of evidence
- Suggesting reasons for differences
- Understanding of the physiology of the human body and the way in which it responds to exercise stress.
- Recognising the strengths and weaknesses of different responses
- Summarising and distilling of most relevant information
- Description of data trends
- Recognition of multiple points of view
- Recognition of the wider knock-on impacts of a human/physical change

- How does the cardio-respiratory system work at rest and whilst at exercise?
- How do muscles produce movement within the body?
- What is the function of the skeletal system
- Which components of fitness are best suited for certain sports?
- How to design a training programme?
- Which body types are best suited for certain sports?
- Which training methods are best suited for certain sports?

- Identifying the inter-relationships among phenomena
- Ability to critique the reliability of evidence
- Suggesting reasons for differences
- Understanding of the physiology of the human body and the way in which it responds to exercise stress.
- Recognising the strengths and weaknesses of different responses
- Summarising and distilling of most relevant information
- Description of data trends
- Recognition of multiple points of view
- Recognition of the wider knock-on impacts of a human/physical change

**Paper 2****Skills and Knowledge**

- Sports psychology
- Socio-cultural influences on sport
- Commercialisation of sport
- Ethical issues
- Health and fitness

- Appreciation of the relative significance of impacts and processes
- Ability to explain patterns of engagement in sport
- Setting processes within systems
- Distinguishing between elite performers and members of the public

**Assessment**

- Core PE and GCSE PE Assessment across four pillars of Excellence, Integrity, Leadership and Community.
- Self-assessment: against criteria and against model answers
- Peer-assessment: process-based questions, definition knowledge, do they have correct technique
- Teacher assessment: ability to structure evaluative questions, presentations
- Tests: every half term - low stakes end of topic tests

Team Activity	Individual
<ul style="list-style-type: none"> <li>• Acrobatic gymnastics. Cannot be assessed with gymnastics.</li> </ul>	<ul style="list-style-type: none"> <li>• Amateur boxing</li> </ul>
<ul style="list-style-type: none"> <li>• Association football. Cannot be 5 a side</li> </ul>	<ul style="list-style-type: none"> <li>• Athletics. Two different events/groups.</li> </ul>
<ul style="list-style-type: none"> <li>• Badminton. Cannot be assessed with singles</li> </ul>	<ul style="list-style-type: none"> <li>• Badminton singles. Cannot be assessed with doubles.</li> </ul>
<ul style="list-style-type: none"> <li>• Basketball</li> </ul>	<ul style="list-style-type: none"> <li>• Canoeing/Kayaking-slalom. Cannot be assessed in both. Cannot be assessed with sprint</li> </ul>
<ul style="list-style-type: none"> <li>• Camogie. Cannot be assessed with hurling</li> </ul>	<ul style="list-style-type: none"> <li>• Canoeing/kayaking – sprint. Cannot be assessed in both. Cannot be assessed with slalom</li> </ul>
<ul style="list-style-type: none"> <li>• Cricket</li> </ul>	<ul style="list-style-type: none"> <li>• Cycling track or road. Cannot be assessed in both.</li> </ul>
<ul style="list-style-type: none"> <li>• Dance</li> </ul>	<ul style="list-style-type: none"> <li>• Dance solo. Cannot be assessed with team.</li> </ul>
<ul style="list-style-type: none"> <li>• Figure skating. Can only be used for one activity. Cannot be assessed with dance.</li> </ul>	<ul style="list-style-type: none"> <li>• Diving. Platform only.</li> </ul>
<ul style="list-style-type: none"> <li>• Gaelic football</li> </ul>	<ul style="list-style-type: none"> <li>• Golf</li> </ul>
<ul style="list-style-type: none"> <li>• Futsal. Cannot be assessed with football.</li> </ul>	<ul style="list-style-type: none"> <li>• Gymnastics (artistic) cannot be rhythmic</li> </ul>
<ul style="list-style-type: none"> <li>• Handball</li> </ul>	<ul style="list-style-type: none"> <li>• Equestrian</li> </ul>
<ul style="list-style-type: none"> <li>• Hockey (must be field)</li> </ul>	<ul style="list-style-type: none"> <li>• Rock Climbing (indoor or outdoor)</li> </ul>
<ul style="list-style-type: none"> <li>• Hurling. Cannot be assessed with camogie</li> </ul>	<ul style="list-style-type: none"> <li>• Figure skating. This can only be used for one activity. Cannot be assessed with dance.</li> </ul>
<ul style="list-style-type: none"> <li>• Ice hockey. Cannot be assessed with inline roller hockey</li> </ul>	<ul style="list-style-type: none"> <li>• Sailing (Royal Yachting Associated recognised sailing boat classes only). This can only be used for one activity. Students must perform in the role of helm.</li> </ul>
<ul style="list-style-type: none"> <li>• Inline roller hockey. Cannot be assessed with ice hockey</li> </ul>	<ul style="list-style-type: none"> <li>• Sculling. Cannot be assessed with rowing, canoeing or kayaking.</li> </ul>
<ul style="list-style-type: none"> <li>• Lacrosse</li> </ul>	<ul style="list-style-type: none"> <li>• Skiing (Outdoor/indoor on snow). Cannot be assessed with snowboarding. Must not be on dry slopes.</li> </ul>
<ul style="list-style-type: none"> <li>• Netball</li> </ul>	<ul style="list-style-type: none"> <li>• Snowboarding (Outdoor/indoor on snow). Cannot be assessed with skiing. Must not be on dry slopes.</li> </ul>
<ul style="list-style-type: none"> <li>• Rowing</li> </ul>	<ul style="list-style-type: none"> <li>• Squash. Cannot be assessed with doubles.</li> </ul>
<ul style="list-style-type: none"> <li>• Rugby League. Cannot be assessed with rugby union/sevens)</li> </ul>	<ul style="list-style-type: none"> <li>• Swimming. Cannot be synchronised swimming. Cannot be personal survival. Cannot be lifesaving.</li> </ul>

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| <ul style="list-style-type: none"> <li>Rugby Union (can be assessed as sevens or 15's). Cannot be assessed with rugby league. Cannot be tag rugby</li> </ul>   | <ul style="list-style-type: none"> <li>Table tennis. Cannot be assessed with doubles table tennis.</li> </ul> |
| <ul style="list-style-type: none"> <li>Sailing (Royal Yachting Associated recognised sailing boat classes only.) This can only be used for one activity. Students must perform in the role of helm.</li> </ul> | <ul style="list-style-type: none"> <li>Tennis. Cannot be assessed with doubles tennis.</li> </ul>             |
| <ul style="list-style-type: none"> <li>Sculling. Cannot be assessed with rowing, canoeing, kayaking, or individual sculling.</li> </ul>  | <ul style="list-style-type: none"> <li>Trampolining</li> </ul>  |
| <ul style="list-style-type: none"> <li>Squash doubles. Cannot be assessed with singles squash</li> </ul>   | <ul style="list-style-type: none"> <li>Windsurfing</li> </ul>   |
| <ul style="list-style-type: none"> <li>Table tennis doubles. Cannot be assessed with singles.</li> </ul>   | <ul style="list-style-type: none"> <li>- Volleyball</li> </ul>  |
| <ul style="list-style-type: none"> <li>Tennis. Cannot be assessed with singles tennis</li> </ul>   | <ul style="list-style-type: none"> <li>- Waterpolo</li> </ul>   |

## Assessment- GCSE PE

- Students must choose an individual activity, a team activity and another of your choice (individual or team).
- Practical is 40% of final grade

## Support

Students are supported remotely through a well-organised and purposeful selection of materials. All lesson material is permanently available, along with revision guidance, exemplar answers and practice questions. Furthermore, all students have access to a textbook. The Sports and Physical Education department has an open-door policy where students are welcome to come and discuss areas of uncertainty. Certain students in Y11 are selected for mentoring, whereby in exchange for a willingness to act on feedback, staff members provide individual support. Students given access to online self-assessment checkpoint tests and lectures for every topic on 'The Everlearner' platform.

## Stretch

The physical education department aim to stretch and challenge students through imaginative and varied lessons, including debates, student-led presentations and decision making exercises; all of which place no ceiling on the potential outcomes and encourage self-directed learning. Where relevant, students are directed towards appropriate wider reading concerning the topic in hand, and encouraged to look for topical elements of physical education within current affairs.

## Impact

Students have the opportunity to participate in debates, sporting opportunities, fieldtrip's and potentially sports tours. These develop a context within the real world of sport and open up ideas of future career possibilities crucial to character development, with independent critical thinking, empathy and problem solving all highly valued by employers. Our curriculum is structured to allow generous time for discussion, and for consideration of others' opinions. In addition, Physical Education diverse subject content allows pupils to keep their options open later on. The knowledge and skills that students may develop will enhance their understanding of global issues, their understanding of the impact of their own lifestyle choices, and their appreciation of the rich range of human experiences.

## Public Examinations

Students who complete this course will be more than able to enter the AQA PE GCSE course (8582). The question types in these papers include multiple-choice, short answer and extended discursive prose. Assessment involved two written papers and one non-examined Practical Performance, analysis and evaluation worth 40% of the course.

# Physics

## Aim

GCSE study in the sciences provides the foundation for understanding the material world. Scientific understanding is changing our lives and is vital to the world's future prosperity, and all learners will be taught essential aspects of the knowledge, methods, process and uses of science. They will be helped to appreciate how complex and diverse phenomena of the natural world can be described in terms of a small number of key ideas relating to the sciences which are both inter-linked and are of universal application.

Physics explores phenomena from particles smaller than atoms to massive stars who reside billions of kilometres away, and everything in between. In Physics we complement facts – from observation and experiment – with laws that summarise said facts, often using mathematics as our language of choice. We then use these laws to develop and test theories to glean a better understanding, and even explanation, of the physical universe. At GCSE, we study the physics that form the basis of many known phenomena, and weave our understanding thereof into solutions to practical problems being tackled by scientists and engineers at this very moment, with a conscious appreciation of the social and environmental impacts.

## Purpose

Key Stage 4 Physics encourages students to:

- develop scientific knowledge and conceptual understanding of fundamental physics
- develop understanding of the nature, processes and methods of science, through different types of scientific enquiries that help them to answer scientific questions about the physical world around them
- develop and learn to apply observational, practical, modelling, enquiry and problem-solving skills, both in and outside the laboratory, with a particular emphasis on the relevant mathematics, where required
- develop their ability to evaluate claims based on science through critical analysis of the methodology, evidence and conclusions, both qualitatively and quantitatively.

## Cross-Curricular Connections

Physics has obvious links to the other sciences forming the bridge between them and Mathematics. The practical skills taught in Physics will allow the students to gain confidence and precision when working that will help with any other practical subject. There is also a Maths requirement in the GCSE specification that will encourage students to make links between the two subjects.

## Independent Learning

Homework will be a combination of exercises arising directly from the lessons, digital tasks (e.g. Kerboodle, IsaacPhysics), research projects and exam questions. Independent learning is also expected as students consolidate notes, prepare for practicals and revise for regular tests.

## Year 9

## Skills and Knowledge

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>• describe how and why the atomic model has changed over time</li><li>• explain the differences in density between the different states of matter</li><li>• describe how heating a system will change the energy stored within the system and raise its temperature or produce changes of state</li><li>• define the term specific heat capacity and distinguish between it and the term specific latent heat</li><li>• explain how the motion of the molecules in a gas is related both to its temperature and its pressure</li><li>• explain how doing work on a gas can increase its temperature</li><li>• describe how to measure distance and time</li><li>• describe how such examples involve interactions between pairs of objects which produce a force on each object</li><li>• describe examples of the forces acting on an isolated solid object or system</li></ul> | <ul style="list-style-type: none"><li>• apply the relationship between density, mass and volume</li><li>• Measurement of length, volume and mass and using them to calculate density.</li><li>• calculate the energy change involved in a change of state</li><li>• calculate the differences in pressure at different depths in a liquid</li><li>• interpret enclosed area in velocity-time graphs</li><li>• calculate average speed for non-uniform motion</li><li>• apply formulae relating distance, time and speed, for uniform motion, and for motion with uniform acceleration</li><li>• use vector diagrams to illustrate resolution of forces, a net force (resultant force), and equilibrium situations</li></ul> |
|--|---|

- describe, using free body diagrams, examples where two or more forces lead to a resultant force on an object
- describe the difference between elastic and plastic deformation (distortions) caused by stretching forces
- describe the difference between linear and non-linear relationships between force and extension
- explain how levers and gears transmit the rotational effects of forces
- apply Newton's second law in calculations relating forces, masses and accelerations
- calculate a spring constant in linear cases
- calculate the work done in stretching

## Assessment

- Self-assessment: Knowledge audit. Kerboodle tasks. A range of exercises and study resources.
- Peer-assessment: Multiple choice questions, practice exam questions, research and presentation, and group work in practicals.
- Teacher assessment: Practical skills, research tasks and presentations.
- Tests: End of topic tests, end of year exam.

## Year 10

## Skills and Knowledge

- describe that charge is a property of all matter and that there are positive and negative charges.
- describe the production of static electricity
- explain how transfer of electrons between objects can explain the phenomena of static electricity
- recall and use the relationship between quantity of charge, current and time
- describe the differences between series and parallel circuits
- describe the difference between permanent and induced magnets
- describe how to show that a current can create a magnetic effect and describe the directions of the magnetic field around a conducting wire
- describe wave motion in terms of amplitude, wavelength, frequency and period
- describe processes which convert wave disturbances between sound waves and vibrations in solids
- recall that electromagnetic waves are transverse and are transmitted through space where all have the same velocity
- recall that different substances may absorb, transmit, refract, or reflect electromagnetic waves in ways that vary with wavelength
- represent d.c. circuits with the conventions of positive and negative terminals, and the symbols that represent common circuit elements
- recall and apply the relationship between I, R and V
- use graphs to explore whether circuit elements are linear or non-linear
- use graphs and relate the curves produced to the function and properties of circuit elements
- calculate the currents, potential differences and resistances in d.c. series and parallel circuits
- Plotting of magnetic fields around different shaped magnets.
- apply the equation that links the force on a conductor to the magnetic flux density,
- the current and the length of conductor to calculate the forces involved
- apply the equations linking the potential differences and numbers of turns in the two coils of a transformer
- apply formulae relating velocity, frequency and wavelength
- apply the relationships between frequency and wavelength across the electromagnetic spectrum
- use ray diagrams to illustrate reflection, refraction and the similarities and differences between convex and concave lenses

## Assessment

- Self-assessment: Knowledge audit. Kerboodle tasks. A range of exercises and study resources.
- Peer-assessment: Multiple choice questions, practice exam questions, research and presentation, and group work in practicals.
- Teacher assessment: Practical skills, research tasks and presentations.
- Tests: End of topic tests, end of year exam.

## Year 11

## Skills and Knowledge

- recall that some nuclei are unstable and may emit alpha particles, beta particles, or neutrons, and electromagnetic radiation as gamma rays
- explain the concept of half-life and how this is related to the random nature of radioactive decay
- explain why the hazards associated with radioactive material differ according to the half-life involved
- describe all the changes involved in the way energy is stored when a system changes for common situations
- describe how, in different domestic devices, energy is transferred from batteries or the a.c. from the mains
- explain the factors which affect the distance
- required for road transport vehicles to come to rest in emergencies and the implications for safety
- estimate how the distances required for road
- vehicles to stop in an emergency, varies over a range of typical speeds
- describe the main energy sources available for use on Earth, compare the ways in which they are used and distinguish between renewable and non-renewable sources
- explain how red shift and other evidence can be linked to the Big-Bang model
- explain for circular orbits, how the force of gravity can lead to changing velocity of a planet but unchanged speed
- balance equations representing the emission of alpha-, beta- or gamma-radiation in terms of the masses, and charges of the atoms involved
- calculate the net decline, expressed as a ratio, during radioactive emission after a given (integral) number of half-lives
- make calculations of the energy changes associated with changes in a system, recalling or selecting the relevant equations for mechanical, electrical, and thermal processes; thereby express in quantitative form and on a common scale the overall redistribution of energy in the system
- calculate the amounts of energy associated with a moving body, a stretched spring and an object raised above ground level
- calculate energy efficiency for any energy transfer
- link the potential differences and numbers of turns of a transformer to the power transfer involved; relate this to the advantages of power transmission at high voltages

## Assessment

- Self-assessment: Knowledge audit. Kerboodle tasks. Past papers
- Peer-assessment: Research and presentation. Multiple choice questions
- Teacher assessment: Practical skills, research tasks and presentations. Longer response questions
- Tests: End of topic tests, end of year exam. Mock exam.

## Support

Physics support will be offered in a variety of formats. Kerboodle can be used by all students to access support materials for any topics they are struggling with – students have access to the course textbook via Kerboodle, and we currently lend physical copies of the textbook to all students (for return upon completing year 11 study). A CGP revision guide is offered for purchase to all Y9 students at the start of the course.

## Stretch

There are numerous opportunities for students to go above and beyond the depth of study contained in a typical GCSE course if they are self-motivated enough to do so. We also support and endorse opportunities for students to engage in STEM competitions to stretch and challenge them in new and exciting areas of science.

## Assessment

The students will have frequent short topic tests throughout years 9-11 to ensure understanding of the core knowledge. End of year exams will be a more thorough assessment of all the content covered up to that point in the course. Practical skills will be assessed throughout the whole course and the students will have to complete a minimum of 8 required practicals which will be teacher assessed in terms of practical competence.

## Impact

Physics students should be able to demonstrate their ability to work both independently and in a group. Independently they are able to use their initiative, be organised and meet deadlines. In a group they are able to interact constructively as part of a team. Physics will also help students learn the need to pay attention to detail and to demonstrate their ability to manipulate precise and intricate ideas, to construct logical arguments and to use technical language correctly

## Public Examinations

OCR Physics A (Gateway) J249

The students will sit two examinations, each worth 50% of the final grade:

- Paper 3 (J249/03) 90 marks, 1 hour 45 minutes, assessing modules P1-4 and P9
- Paper 4 (J249/04) 90 marks, 1 hour 45 minutes, assessing modules P5-8 and P9

Module P9 comprises the practical skills that are embedded throughout the course, and complement the subject content covered in modules 1-8.

For clarification, Papers 1 and 2 (not listed above) are attributed to the Foundation Tier Qualification (grades 1 to 5); Reading School students study for, and sit, the Higher Tier Qualification (grades 4 – 9).

# Theology and Philosophy

## Aim

Theology and Philosophy at Reading School has both a pedagogical and a utilitarian aim.

Firstly, 'Philosophy is thinking in slow motion' (John Campbell). The word 'Philosophy' literally comes from two Greek concepts meaning "The love for wisdom" In the theology and philosophy department we put a high premium on wisdom rather than mere intellectual ability.

Secondly, Theology literally means 'thinking about God'. One classic definition of theology was given by St Anselm. He called it 'faith seeking understanding' and for many this is the true function of theology. However, another view was expressed by Peter Abelard who put things the other way around and said 'I must understand before I can believe'. Theology then, is the wrestling with the question of God and what it means to understand and appreciate different faith traditions.

There is a powerful piece of folk wisdom: prepare the child for the road, not the road for the child. In Theology and Philosophy this is done in three ways:

- Helping us to understand the world we live in. Religion has been a key driver in the development of our politics, history, art, literature and music. Any attempt to understand the world without engaging with religion is going to be flawed.
- Society is diverse. Our students need to be skilled intercultural navigators as they engage with people with potentially very different religious backgrounds and worldviews.
- Theology and Philosophy provides space to critically engage with fundamental questions. This is not only a vital component in itself, but offers a hugely important contribution to Reading School as a whole and helps to develop students who are well-rounded and equipped to face challenges in the real world.

At a time when society is becoming increasingly ill-equipped to cope with matters that are controversial but highly valued, there is an urgent need to equip students with the skills needed to engage with these issues in a healthy way. Society is pluralistic, comprising of many faiths and cultures, which means that for people to be able to co-exist, steps need to be taken to reduce and remove prejudice. Therefore, an understanding of other people's beliefs helps contribute towards building a more cohesive and tolerant society.

Deep thinking can only take place when there is an openness to engage with people who hold different perspectives, allowing us to clarify our own views and to engage with others in a humble and respectful way. A subject like Theology and Philosophy addresses everyday life issues, and the questions that people ask are so important because how they are answered will affect how we live. Our subject is therefore a practical subject which goes beyond the classroom, leading to 'truthful living,' and also developing a wide range of employability skills.

## Purpose

Theology and Philosophy develops a variety of skills and attitudes like analysing, logical and critical thinking, persuasive writing, evaluating, speaking, etc. Theology and Philosophy encourages one to adopt an enquiring, critical and reflective approach to the world, truth-claims and beliefs. This will prepare students excellently for further study at University in any subject. Theology and Philosophy will make our students more employable because of the transferrable skills that it develops. Figures from the Higher Education statistics agency show Theology and Philosophy students, are in growing demand from employers. At Reading School we believe that we are offering a very unique opportunity to our students to get an AS qualification at the end of Year 11.

## Cross-Curricular Connections

Theology and Philosophy undergirds every other subject and is also an inherently interdisciplinary subject. Philosophy as a subject is enriched by many aspects of human experience, for example, there are obvious links between, philosophy and the arts and culture, philosophy and ethics, philosophy and history as well as philosophy and science.

## Independent Learning

Students in Theology and Philosophy are expected to realise that "homework" is compulsory after each lesson due to the demanding and rigorous nature of this AS-level subject! This will often be tested in class tests or oral reviews in lessons. On top of this, end of unit assessments and essay tasks will be given from time to time as part of the formal and summative assessments. Application of knowledge and understanding to examination-style questions grows in frequency across the course, with an emphasis on the idea that there is rarely one 'correct' answer. We work closely with the LRC to direct boys to an up-to-date set of resources.

**Year 9****Skills and Knowledge****Philosophy of religion**

- Ancient philosophical influences
  - The nature of the soul, mind and body
  - Arguments about the existence or non-existence of God
  - The nature and impact of religious experience
  - The challenge for religious belief of the problem of evil
- The philosophical language of soul, mind and body in the thinking of Plato and Aristotle
  - Metaphysics of consciousness, including:
    - substance dualism
    - materialism
  - The teleological argument
  - The cosmological argument
  - Challenges to arguments from observation
  - The ontological argument
  - The nature and influence of religious experience, including:
    - mystical experience
    - conversion experience
  - Different ways in which individual religious experiences can be understood
  - The problem of evil and suffering:
    - different presentations
    - theodicies that propose some justification or reason for divine action or inaction in the face of evil

**Assessment**

- Self-assessment: against success-criteria and against model answers.
- Peer-assessment: developing familiarity with the Mark Scheme.
- Teacher assessment: ability to structure evaluative questions, whole class feedback, D.I.R.T (dedicated Improvement and reflection time)
- Tests: Class tests; end of unit tests; essay-writing under exam conditions.
- Mock-exam: Full range of exam-style questions including an essay

**Year 10****Skills and Knowledge****Religion and ethics**

- Normative ethical theories
  - The application of ethical theory to two contemporary issues of importance
- Aquinas' natural law, including:
    - Telos
    - The four tiers of law
    - The precepts
  - Fletcher's situation ethics, including:
    - Agape
    - The six propositions
    - The four working principles
    - Conscience

- Kantian ethics, including:
  - Duty
  - The hypothetical imperative
  - The categorical imperative and its three formulations
  - The three postulates
  
- Utilitarianism, including:
  - Utility
  - The hedonic calculus
  - Act utilitarianism
  - Rule utilitarianism
  
- Key ideas, including:
  - Sanctity of life
  - Quality of life
  - Voluntary euthanasia
  - Non-voluntary euthanasia

## Assessment

- Self-assessment: against success-criteria and against model answers.
- Peer-assessment: developing familiarity with the Mark Scheme.
- Teacher assessment: ability to structure evaluative questions, whole class feedback, D.I.R.T (dedicated Improvement and reflection time)
- Tests: Class tests; end of unit tests; essay-writing under exam conditions.
- Mock-exam: Full range of exam-style questions including an essay

## Year 11

### Skills and Knowledge

#### Developments in religious thought Learners will study:

- Religious beliefs, values and teachings, their interconnections and how they vary historically and in the contemporary world
  - Sources of religious wisdom and authority
  - Practices which shape and express religious identity, and how these vary within a tradition
- Human relationships pre- and post-Fall
    - Original Sin and its effects on the will and human societies
    - God's grace
  
  - Natural knowledge of God's existence:
    - As an innate human sense of the divine
    - As seen in the order of creation
  
  - Revealed knowledge of God's existence:
    - Through faith and God's grace o revealed knowledge of God in Jesus Christ
  
  - Jesus Christ's authority as:
    - The Son of God
    - A teacher of wisdom
    - A liberator

- The diversity of Christian moral reasoning and practices and sources of ethics, including:
  - The Bible as the only authority for Christian ethical practices
  - Bible, Church and reason as the sources of Christian ethical practices
  - Love (agape) as the only Christian ethical principle which governs Christian practices
  
- The teaching and example of Dietrich Bonhoeffer on:
  - Duty to God and duty to the State
  - Church as community and source of spiritual discipline
  - The cost of discipleship

## Assessment

- Self-assessment: against success-criteria and against model answers.
- Peer-assessment: developing familiarity with the Mark Scheme.
- Teacher assessment: ability to structure evaluative questions, whole class feedback, D.I.R.T (dedicated Improvement and reflection time)
- Tests: Class tests; end of unit tests; essay-writing under exam conditions.
- Mock-exam: Full range of exam-style questions including an essay

## Support

Students are supported remotely through a well-organised and purposeful selection of materials in Microsoft teams. All lesson material is permanently available, along with revision guidance, exemplar answers and practice questions. Students in Year 11 each receive their own textbook to take home and use until they have written the final examination. A voluntary theology and philosophy-clinic runs every Tuesday/ Wednesday lunchtimes in Room 8, and the theology and philosophy office has an open-door policy where students are welcome to come and discuss areas of uncertainty.

## Stretch

By its very nature, theology and philosophy stretches and challenges students in deep thinking, debating and discussion. The department assist further in this through imaginative and varied lessons, including debates, student-led presentations and decision-making exercises; all of which place no ceiling on the potential outcomes and encourage self-directed learning. Where relevant, students are directed towards appropriate wider reading concerning the topic and encouraged to look for the philosophical and ethical nature of topical current affairs.

## Assessment

Assessment and feedback in Theology and Philosophy encourages improvement in students' skills, knowledge and understanding. As essays form a major part of the course, we have adopted a numbering system whereby students are expected to take maximum ownership of the feedback-process. The numbers on their marked essays directly relate back to written feedback that are displayed in lesson time and guides the student in terms of the kind of improvements they need to make in order to improve. This is usually followed up by an essay in exam conditions in class where they have the opportunity to apply their "EBI". insights.

## Impact

Students have the opportunity to participate in a variety of debates and discussions on topics that are philosophical, theological and ethical in nature. These develop crucial elements of character, with independent critical thinking, empathy and problem solving all highly valued by employers. Our curriculum is structured to allow generous time for discussion, and for consideration of others' opinions. In this way, learning-activities, as well as the content of the course, promotes the Spiritual, Moral, Social and Cultural aspects of our students' growth in wisdom. The knowledge and skills that students will gain, will enhance their critical thinking skills, their understanding of global issues and the impact of their own lifestyle choices. It will also increase their appreciation for the history and rich inheritance of human thinking.

## Public Examinations

**AS-level certificate examination (OCR, Religious Studies specification: H173)**

This course is assessed through:

- Three exam papers of 1 hour 15 minutes, worth 180 marks.

# Spanish

## Aim and Purpose

With ever increasing globalisation, speaking more than one language is fast becoming an expectation both professionally and privately. Apart from the undeniable economic benefits and the cultural enrichment a foreign language provides, it is also scientifically proven that learning new languages, and handling various complex grammatical structures improves our memory, our problem-solving and critical-thinking skills. It also enhances our concentration, the ability to multitask and crucially our communication skills.

Learning a language is always a fun and rewarding experience, and learning Spanish at Reading School is not an exception.

Spanish is the official language in 21 countries around the world with nearly 500 million people who speak Spanish as a native language. This makes it second on the list of languages by number of native speakers. In the United States alone there are over 50 million people who speak Spanish as their native or second language, more than in any other Spanish speaking country, with the exception of Mexico. Spanish is also considered one of the easiest languages for a native English speaker to learn. The grammar and sentence structure are different from English, but simpler and both languages have Latin roots, sharing thousands of cognate words.

Communicating in Spanish will open doors whether you want to travel, work, study or live abroad. Communication, mental agility, presentation and interpersonal skills are some of the valuable skills for life honed by a GCSE in Spanish. Four language skills are tested at GCSE level: listening, speaking reading and writing, all of which count 25% towards the final grade, providing an all-round education in the subject and affording the learner fluency in Spanish.

These are honed via a range of relevant and purposeful topics, including:

- Meeting new people
- Fashion
- Leisure
- Wellbeing
- Careers
- Technology

The Spanish culture is widely known for great food, Flamenco music and dance, bullfights, fantastic beaches and lots of sunshine. There is much more on offer as well since Spain has been one of the cultural centres of Europe for thousands of years. Communicating in Spanish will open doors whether you want to travel, work, study or live abroad.

In Spanish four language skills are tested at GCSE level: listening, speaking reading and writing, all of which count 25% towards the final grade, providing an all-round education in the subject and affording the learner fluency in Spanish.

### Skills for Life

- Communications skills: spoken and written
- Mental agility and problem solving
- Presentations skills
- Team-working and interpersonal skills
- Listening skills, questioning and forming opinions

## Cross-Curricular Connections

Languages are an inherently interdisciplinary subject, uniting skills from all areas of the curriculum. Given the wide range of skills acquired through language learning, universities value students who studied a language for GCSE, with the Russell Group Universities even expecting their applicants to have a language to at least GCSE level, since well developed communication skills which are essential in today's workplace.

## Independent Learning

Generally, every language requires a certain amount of independent learning as it is essential that vocabulary is learnt and/ or consolidated by the student at their own pace. Students can learn/revise vocab with their vocab booklet or online resources (Quizlet). Grammar will be learnt and explained in lessons, but we will ask students to practise it at home and so embed their prior learning. This can be done in their exercise book, on Teams uploaded materials or with online resources (This Is School, BBC Bitesize).

## Year 9

### Skills and Knowledge

- We build on the topics and structures studied in Years 7 and 8 in greater depth in terms of using more sophisticated ideas, grammar and vocabulary. We teach through interactive lessons, language learning websites, our on-line textbook with listening material, role-plays, pair work and formal and informal assessment.
  - We will start the GCSE book at the end of the year, including fun activities which include a lot of speaking to help students understand how to achieve the top grades in Spanish.
  - Students will prepare basic writing and speaking exercises and, with the help of scaffolding, learn how to extend their writing and speaking and how to sound sophisticated and achieve the top grades.
- Tenses: present, perfect past, imperfect past, future
  - Verbs: regular and irregular, reflexives, modal verbs
  - Infinitive constructions
  - Adjective and adverb endings
  - Word order and subordinate clauses

### Assessment

Assessment and feedback: through regular formal and informal feedback students will recognise their own strengths and weaknesses to help them concentrate on what they need to improve on.

- Self-assessment: against criteria and against model answers
- Peer-assessment: content needed for written and spoken tasks
- Teacher assessment: ability to apply Grammar, understand and produce the language
- Tests: every half term - low stakes end of topic tests

## Years 10 and 11

### Skills and Knowledge

- We immerse ourselves in the GCSE topics using the AQA textbook and a range of other materials, consolidating all Grammar we have learnt and getting ready for the exams, which includes practice in all four skills as well as translation, using real exam material similar to that which the students will sit in their final exam.
- Revise previous grammar
  - Comparison of adjectives
  - Tenses: pluperfect, conditional/ future perfect
  - Passive
  - Impersonal verbs
  - Relative clause

### Assessment

Through regular formal and informal feedback students will recognise their own strengths and weaknesses to help them concentrate on what they need to improve on.

- Self-assessment: self-reflection on written and spoken tasks
- Peer-assessment: content needed for written and spoken tasks
- Teacher assessment: ability to apply Grammar, understand and produce the language
- Tests: every half term - low stakes end of topic tests

### Support

- We offer a Spanish clinic once to twice a week and we have a mentoring system where Year 12 students are available to assist boys.

- We recommend students to use different websites such as [quizlet.com](http://quizlet.com), [thisisschool.com](http://thisisschool.com) and [kerboodle](http://kerboodle) which assist in vocabulary learning as well as Grammar learning and consolidation. These websites are very easy to access and can be used from any device such as mobile phones at any time.

## Stretch

- We offer trips abroad; we currently have an exchange programme with an independent school in Albacete (Castilla-La Mancha region), which offers the perfect opportunity to completely immerse into the language.
- We also offer local visits, where the students will have the opportunity to stretch their skills.

## Public Examinations

### AQA GCSE Spanish (8698)

Students who complete this course will be more than able to enter the AQA Spanish GCSE course (8698). This course is assessed through:

- Speaking 25% (12-15 minutes 1:1 with teacher. Photo card and Role-play card and conversation)
- Listening 25% (comprehension questions include written and multiple-choice tasks; dictation of short, spoken extracts 45 minutes)
- Reading 25% (written answers, multiple-choice and a translation from Spanish into English, 1 hour)
- Writing 25% (two writing tasks, one of 90 words and one of 150 words. This paper also contains a translation from English into the target language. 1 hour 15 minutes)