

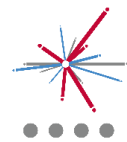
# Ark Pioneer Academy

**Year 10**  
**Curriculum Information Booklet**  
**2022 - 23**



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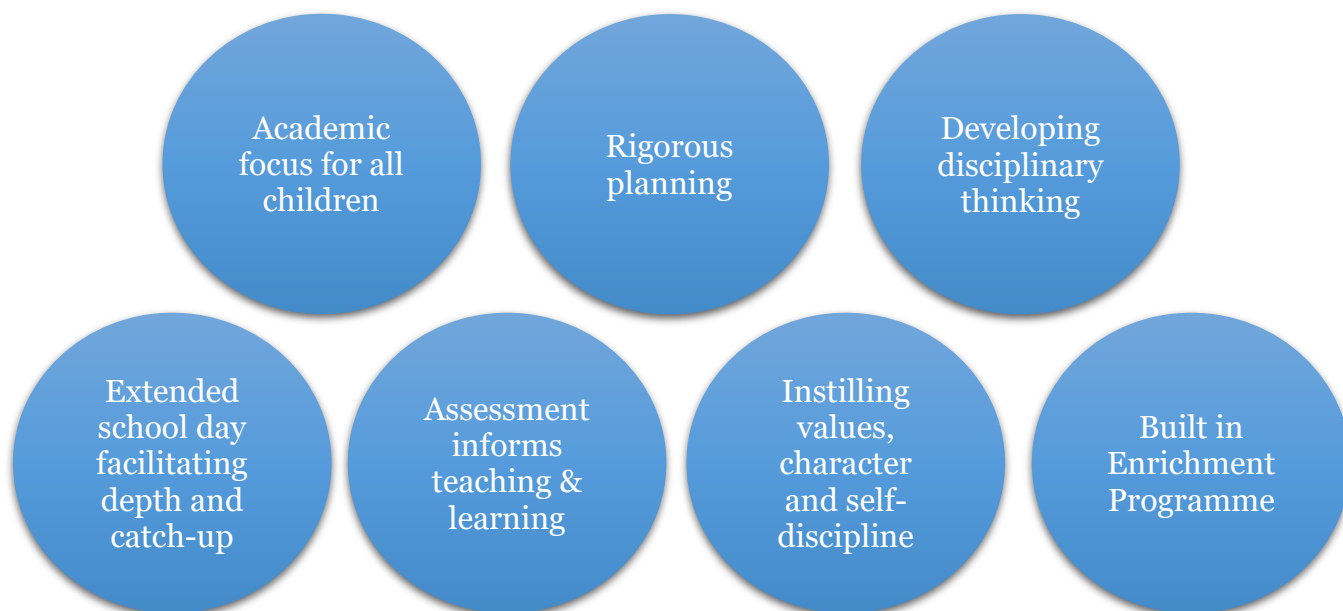


## Introduction

*At Ark Pioneer, the curriculum in each subject area is designed backwards from university study, through A-Level, GCSE and down to Key Stage 3. Our subject leaders have created a rigorous curriculum in every subject that promotes curiosity and develops a depth of understanding.*

*All subject areas aim to prepare our pupils for future study within this discipline, leaving no doors closed to pupils as they narrow their choices later in their education.*

## Our Curriculum Values

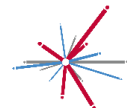


### Academic focus for all children

At Ark Pioneer, pupils study a traditional curriculum, with an academic focus from Key Stage 3 through to our Sixth Form offer. In years 7 to 9, we offer a rich and varied curriculum, designed to prepare pupils fully for GCSEs and the ‘step-up’ to Key Stage 4. We have a strong focus on English, mathematics and science, with high allocations for these three core subjects (see table below). Each pupil also spends significant studying the humanities and French.

However, our pupils also experience a range of practical and expressive subjects including design technology, art, music, drama and PE every week. Computing skills are taught through a range of subjects, built into our Values & Character programme and individual pillar days and enhanced by our Digital Strategy, ensuring our pupils are responsible, competent, confident and creative users of information and communication technology.

This balanced curriculum diet ensures they develop into rounded individuals, with a range of strengths and talents.



### **Rigorous planning through a 7 year journey**

Our curriculum is planned 'backwards' from university study in each subject and includes a thorough base of content. At each point the knowledge, conceptual understanding and skills that need to be mastered in order to move on are clearly defined in our curriculum maps, medium term plans and at a pupil level, in subject knowledge organisers and supporting classroom resources.

Our teachers have a detailed understanding of the curriculum structure and sequence, recognising how each lesson's learning fits into the pupils' broader development within the subject from Key Stage 3 onwards.

### **Developing disciplinary thinking**

Each subject curriculum promotes disciplinary thinking and explores the big ideas underpinning that discipline. Teachers develop a depth of understanding in each pupil, ensuring they are well prepared for future study, leaving no doors closed to pupils as they narrow their choices later in their education.

### **Extended school day facilitating depth and catch-up**

We are lucky to have an extended school day which facilitates exploring core subjects in depth and catch-up in particular in reading, English and maths. We commit extra curriculum time to English and mathematics in every year group and train all teachers to be confident teachers of reading. This allows our pupils to quickly develop literacy and numeracy skills to a very high level, including improving their reading age, all of which increases their chances of being successful across every subject.

Pupils who enter at below average levels of attainment and pupils with additional learning needs are supported to catch up, so they can access, and be successful in, our curriculum. This includes interventions in lessons as well as EAL, homework and academic support outside of school targeted at pupils who need it most.

### **Assessment informs teaching & learning**

We use assessment to support us in teaching our curriculum and of course to support pupils' reflection on their learning. Regular 'low-stakes' assessments such as quizzes, allow us to identify misconceptions or gaps and to plan appropriate immediate interventions such as re-teaching specific content or addressing issues with individual pupils or groups. Pupils can also learn from these experiences, identifying their mistakes and correcting and improving their work so they can do better next time.

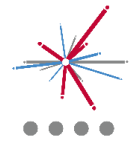
Challenging and fair end of year tests allow us to grade pupils and indicate where they are in relation to national expectations for their age group. Parents receive a report with a grade at the end of each year.

Both forms of assessment inform our improvement of curriculum planning and inform any training needed.

### **Instilling values, character and self-discipline in every child**

We devote significant time to instilling our school community values and to building on each pupil's character and habits to support their academic and personal development. Through our Values and Character Programme our pupils reflect on personal development and relationships, consider what it means to be a British citizen and explore national and global issues.

Pupils are taught specific skills they need to succeed both at university and in the workplace. This includes developing key dispositions such as debating (which they do every week when discussing news items) and presenting (in form and through specific opportunities eg Pupil



Council) as well as embedding useful learning habits such as practice, repetition and recall through ‘copy, cover, check’.

All of this is intertwined with teaching the value of *self-discipline* and developing a sense of responsibility in all of our pupils, supporting them to grow into thoughtful and engaged members of society, acting responsibly and making good decisions.

### **Built in Enrichment Programme**

We are proud that our extended school day allows us to offer two sessions of enrichment for pupils in every year group. Every pupil is exposed to a variety of interests whether sports, arts or academic and has the chance to develop passions that will give them enjoyment throughout their lives. This starts in year 7 with a rotation through lots of enrichments to give them a taster of new interests and push them outside their comfort zone. Enrichment schedule for each term will be shared in the parent update and pupils can see it on their form board.

In addition, we subsidise instrumental lessons for all pupils and offer opportunities for our choir, band and instrumentalists to rehearse and perform regularly. Please ask Ms Barnes if you wish to take up an instrument [j.barnes@arkpioneer.org](mailto:j.barnes@arkpioneer.org)



Pupils play sports at lunchtime and our teams practice and compete regularly in local and network fixtures after school. Club schedule for each term will be shared in the parent update and pupils can see it on their form board.

Our pupils are encouraged to take part in school events and competitions from UK Maths Trust, to ‘bake-offs’ to photography through the year – ensuring aspirations for every child stretch well beyond the base curriculum offer. We share opportunities with parents in the weekly parent bulletin and with pupils in form time.



## Subject weighting and pupil groups

In Key Stage 4, our pupils are exposed to a more grown up, sophisticated study of their chosen GCSE subjects, including the core subject offer in English Maths & Science and options subjects including Art, Product Design, Music, Drama, Physical Education, Religious Education, French, History, Geography and Computer Science. In addition all pupils have a double period of Core PE as part of their timetable and two enrichment sessions as in Key Stage 3

The weighting of subjects through each week and number of pupil groups is shown here:

Core Subjects	Periods	Groups	Options Subjects**	Periods	Groups
<i>English</i>	6	7	<i>Art &amp; Design</i>	3	2
<i>Maths</i>	5	7	<i>Computer Science</i>	3	2
<i>Science</i>	7/6*	7	<i>Drama</i>	3	2
<b>Personal Development</b>	<b>Periods</b>	<b>Groups</b>	<i>French</i>	3	5
<i>Core PE</i>	2	6	<i>Geography***</i>	4	5
<i>Enrichment</i>	2	6/7	<i>History</i>	4	4
<i>Values &amp; Character programme</i>	2.5	6	<i>Music</i>	3	1
			<i>Physical Education (GCSE)</i>	3	2
			<i>Product Design</i>	3	2
			<i>Religious Education</i>	3	2

\* Triple Scientists have 7 lessons of science

\*\* Options groups are determined by pupil choice during Options Interviews

\*\*\* Some groups of pupils studying geography at KS4 have 3 lessons in their timetable

All pupils belong to a homegroup, named after a role model who has modelled our school values amidst many challenges. Each homegroup's tutor is the main parental link and delivers our Values & Character programme to pupils each morning, taught in their form base.

## Year 10 Team



10 Ardern  
Ms Kerr  
(Geography)



10 Johnson  
Ms Gogo  
(SIC History)



10 Lawrence  
Mr Russell  
(LT PE)



Co-tutor 10  
Ms Fayemiwo  
(English)



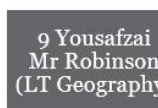
Co-tutor 10  
Ms Bajwa  
(Maths & Community Link)



9 Moore  
Mr Allman  
(PE)



9 Rashford  
Ms Daley  
(English & KS3 Coord.)



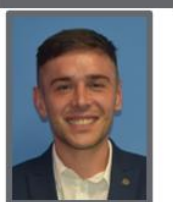
9 Yousafzai  
Mr Robinson  
(LT Geography)



Co-tutor 10  
Ms Ferguson Small (Lead Practitioner EN Mastery)



Mr Biswas  
Head of Year 10  
(Maths)





In year 10 & 11, English, maths and science groups are blocked individually allowing each group to set according to subject attainment and deliver a tailored curriculum to support pupil progress across the attainment spectrum. Most options groups are mixed ability, however, in subjects with multiple groups there is streaming again to support tailoring teaching and curriculum to the specific needs of pupils, ensuring they make strong progress.

It is so important to mention that though we do have this grouping structure to support pupil progress, we never communicate set numbers or discuss grouping with pupils, other than reiterating that the group they are in ensures they are challenged to achieve their potential and that we are working to ensure every child does well enough in GCSE to have real options and choices for their future. This is important for parents to be aware of and reinforce the same messaging. We know this will ensure every child maintains the growth mindset they need to succeed.

### **Key Stage 5 Curriculum:**

Ark Pioneer will open its sixth form in 2024 after our 2019 founding pupils complete GCSEs. We will offer A Level courses across a range of academic subjects following on from our Key Stage 4 offer with the addition of economics, psychology and sociology.

We also intend to offer a number of rigorous level 3 qualifications, the *Applied Science Professional Pathway* and the *Business Professional Pathway* – which have been designed by Ark Schools in close collaboration with partners from the commercial and public sectors and are complemented by a careers readiness programme, careers mentoring and business partnerships.

We believe this offer will prepare Ark Pioneer pupils to attend the best universities in the country or embark on a higher level apprenticeship of their choice.

## **Homework**

At Ark Pioneer, we believe that homework is crucial to success at school. Effective homework consolidates and secures learning and builds independence and self-discipline. Homework is recorded clearly in the planner by pupils, written in during the lesson when the homework is set. Form tutors will issue pupils with a homework timetable that sets out clearly the days each week subjects can set homework.

It is our expectation that all homework is completed to deadline and to the expected high standard. On the due date, homework will be checked at the beginning of the lesson and pupils leave the work visible on their desk.





## Subject Aim

Through studying English, pupils will develop their confidence to speak, read and write fluently so that they can effectively communicate their ideas and emotions to others and through their reading and listening. By developing a passion and appreciation for reading, we want pupils to appreciate our rich and varied literary heritage so that they acquire a wide vocabulary and develop culturally, emotionally, intellectually, socially and spiritually.

Additionally, pupils should be able to analyse language, structure and form of whole texts, including a variety of forms, and articulate themselves academically in well-structured critical essays, considering context and writer's intentions. Alongside this, pupils will enhance their understanding of grammar and knowledge of linguistic conventions so that they can analyse as well as manipulate conventions to suit audience, purpose and text-type.

## Year 10 Termly Overview

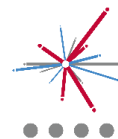
Term	Topic	Key subject knowledge
<b>AUT 1</b>	<i>Exploring creative reading and writing</i>	<ul style="list-style-type: none"> <li>• Fiction text types</li> <li>• Setting and themes</li> <li>• Characterisation and narrative voice</li> <li>• Language and structure</li> <li>• Annotating texts and responding to a fiction text</li> </ul>
<b>AUT 2</b>	<i>19<sup>th</sup> Century Prose: A Christmas Carol</i>	<ul style="list-style-type: none"> <li>• Plot summary of the play</li> <li>• Characters and characterisation</li> <li>• Themes, form, structure and language</li> <li>• Dramatisation</li> </ul>
<b>SPR 1</b>	<i>Non-fiction writers' viewpoints and perspectives</i>	<ul style="list-style-type: none"> <li>• Non-fiction text types</li> <li>• Purpose and audience</li> <li>• Language, structure and responding to a non-fiction text</li> </ul>
<b>SPR 2</b>	<i>Power and Conflict &amp; Unseen Poetry</i>	<ul style="list-style-type: none"> <li>• Pupils will focus their study on an anthology of key poems and review:</li> <li>• Form, structure, rhyme, imagery, themes, content and context</li> </ul>
<b>SUM 1</b>	<i>Shakespeare's Macbeth?</i>	<ul style="list-style-type: none"> <li>• Plot summary of the play</li> <li>• Characters and characterisation</li> <li>• Themes, form, structure and language</li> <li>• Dramatisation</li> </ul>
<b>SUM 2</b>	<i>How can I best bring together all skills taught so far?</i>	<ul style="list-style-type: none"> <li>• Bringing learning together to excel in examinations</li> </ul>

## Assessment Details

In addition to regular knowledge quizzes and multiple-choice style questions, pupils will also undertake extended writing tasks where pupils' analytical skills, vocabulary, grammar and punctuation skills are assessed. In GCSE study, pupils will be entered for 2 GCSEs: the AQA Literature Specification and AQA Language specification. In Literature, pupils will study and be assessed on Macbeth, A Christmas Carol, An Inspector Calls, Conflict and Power poetry and Unseen poetry.

## Exam Board: AQA





## Subject Aim

Mathematics teaches students to be logical, analytical, problem solvers which fosters resilience, independent thinking and a growth mindset – all skills required to become lifelong learners in any chosen profession.

By exploring mathematical concepts and explicitly modelling key language and notations students will be supported and encouraged to articulate their mathematical thinking and communicate their methods accurately.

The regular use of cross curricular connections will develop students' thirst for knowledge, curiosity and appreciation of the power and versatility of mathematics.

## Year 10 Termly Overview

Term	Enquiry Question	Key subject knowledge
AUT1	<i>How can we model global population growth? How much of architecture is mathematics?</i>	<ul style="list-style-type: none"> <li>Exponential functions, compound and simple interest</li> <li>Constructions, plans and elevations, scale drawings and problems</li> </ul>
AUT2	<i>Is the quadratic the queen of all equations? Can a proof be beautiful?</i>	<ul style="list-style-type: none"> <li>Solving quadratics using completing the square, factorisation, the quadratic formula and simultaneous equations</li> <li>Algebraic identities, proof construction, congruence, geometric proof</li> </ul>
SPR1	<i>Do we think in 2 or 3 dimensions? How is a vector similar to a journey?</i>	<ul style="list-style-type: none"> <li>Volume and surface area of curvilinear and more complex shapes</li> <li>Operations on vectors, resultant vectors, applied vectors</li> </ul>
SPR2	<i>How did curiosity about the world lead us to trigonometry?</i>	<ul style="list-style-type: none"> <li>Sine and cosine rules, applied trigonometry, 3D trigonometry, trigonometric graphs, exact values of trigonometric functions</li> </ul>
SUM1	<i>Is there a right way to investigate a hypothesis?</i>	<ul style="list-style-type: none"> <li>Sampling, scatter graphs, pie charts, frequency polygons, stem and leaf diagrams, cumulative frequency, box and whisker diagrams, histograms, grouped data averages, Venn diagrams, probability</li> </ul>
SUM2	<i>What is the best algorithm for finding true love? What is the purpose of circle theorems?</i>	<ul style="list-style-type: none"> <li>Exploration of various algorithms across number, algebra, and ratio and proportion</li> <li>Angles in an arc, quadrilaterals in circles, tangents to circles</li> </ul>

## Assessment Details

In addition to regular multiple choice style questions students will also undertake extended problem-solving questions with real-life contexts to enable them to identify and apply appropriate mathematical methods. In GCSE study, we will follow Edexcel Specification 1MA1 at the Higher or Foundation tier of entry.

## Exam Board: Edexcel



## Subject Aim

We aim to improve opportunities for all young people regardless of background. In science, this means pupils developing a comprehensive and connected understanding of the big picture of science and ensuring that young people leave school with enough science capital to inform their decision making throughout their life, to understand their impact on the environment and how to be and stay healthy.

## Year 10 Overview

Discipline	Enquiry Question	Key subject knowledge
Biology	<i>How does the digestive system work?</i>	<ul style="list-style-type: none"> <li>The digestive system</li> <li>Models of enzymes</li> </ul>
	<i>What is the role of oxygen in the human body?</i>	<ul style="list-style-type: none"> <li>Respiratory system</li> <li>Circulatory system</li> <li>Respiration</li> </ul>
	<i>How do ecosystems cycle carbon and water?</i>	<ul style="list-style-type: none"> <li>Transpiration/translocation</li> <li>Photosynthesis</li> <li>Water and carbon cycles</li> </ul>
	<i>How do our bodies protect us from disease?</i>	<ul style="list-style-type: none"> <li>Communicable diseases</li> <li>Vaccines/antibiotics/resistance</li> <li>Drug development</li> </ul>
	<i>How do populations depend on each other?</i>	<ul style="list-style-type: none"> <li>Ecosystem organisation</li> <li>Environmental changes and the effects on populations</li> </ul>
Chemistry	<i>How does atomic structure determine bonding?</i>	<ul style="list-style-type: none"> <li>Metallic bonding and alloys</li> <li>Ionic bonding</li> <li>Covalent bonding</li> </ul>
	<i>How do ionic substances react?</i>	<ul style="list-style-type: none"> <li>Ionic equations</li> <li>Half equations</li> <li>Electrolysis</li> </ul>
	<i>How can we use conservation of mass to calculate concentration?</i>	<ul style="list-style-type: none"> <li>Moles</li> <li>Limiting reactants</li> <li>Neutralisation reactions</li> </ul>
	<i>How do we represent energy changes during chemical reactions?</i>	<ul style="list-style-type: none"> <li>Exothermic/endothermic reactions</li> <li>Calculating bond energies</li> </ul>
Physics	<i>How can we use forces to predict change?</i>	<ul style="list-style-type: none"> <li>Newton's 2<sup>nd</sup> Law</li> <li>Momentum</li> <li>Hooke's Law</li> </ul>
	<i>How can scientists show that energy is conserved using calculations?</i>	<ul style="list-style-type: none"> <li>Density</li> <li>Kinetic/gravitational/elastic potential energy</li> <li>Power</li> <li>Energy efficiency</li> </ul>
	<i>How can resistance prevent energy transfer?</i>	<ul style="list-style-type: none"> <li>Resistance</li> <li>Power in circuits</li> <li>Transformers</li> </ul>
	<i>What is nuclear energy?</i>	<ul style="list-style-type: none"> <li>Types of radiation</li> <li>Nuclear equations</li> <li>Half life</li> </ul>

## Assessment Details

In addition to regular knowledge quizzes and multiple-choice style questions students will also undertake regular short answer questions in relation to key science practicals. In GCSE study, we will follow the AQA Specification offering both separate science or combined science pathways.

## Exam Board: AQA

# History



## Subject Aim

In history, pupils consider how the past influences the present, what past societies were like, how these societies organised their politics, and what beliefs and cultures influenced people's actions.

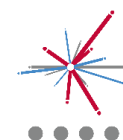
## Year 10 Termly Overview

Term	Topic	Key subject knowledge
Autumn	<i>Migration in medieval England, c800-c1500</i>	<ul style="list-style-type: none"><li>• Vikings in England</li><li>• Normans in England</li><li>• Migration of merchants and Jewish people to England</li></ul>
	<i>Spain and the 'New World', c1490-c1555</i>	<ul style="list-style-type: none"><li>• Columbus' first voyage and Spanish colonisation of the Caribbean</li><li>• Spanish conquest of the Aztec Empire (Mexico)</li><li>• Spanish conquest of the Inka Empire (including Peru)</li></ul>
Spring	<i>Early Elizabethan England, 1558-88</i>	<ul style="list-style-type: none"><li>• Elizabeth I's religious settlement</li><li>• Challenges to Elizabeth I at home and abroad</li><li>• Elizabethan culture and society</li></ul>
Summer	<i>Migrants in Britain, c1500-present</i>	<ul style="list-style-type: none"><li>• Migrants in early modern England, c1500-c1700</li><li>• Migrants in eighteenth- and nineteenth-century Britain</li><li>• Migration in modern Britain, 1900-present</li></ul>

## Assessment Details

Pupils will regularly write answers in response to questions historians have asked about the periods and topics we are studying in order to show the knowledge and historical thinking they are developing. Each term there will also be a formative assessment, consisting of exam-style questions.

## Exam Board: Edexcel



## Subject Aim

Geography at Pioneer will empower our students to:

- Make sense of the world, beyond their local surroundings and everyday experience.
- Engage in the ‘big conversations’ – the significant matters of our time.
- Prepare young people for lives as active citizens.

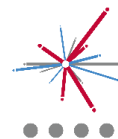
## Year 10 Termly Overview

Term	Enquiry Question	Key subject knowledge
<b>AUT1</b>	The Challenge of Natural Hazards	<ul style="list-style-type: none"> <li>• Understanding and managing risks from natural hazards including geological and atmospheric hazards</li> <li>• Causes and impacts of climate change as well as adaptation and mitigation strategies</li> </ul>
<b>AUT2</b>	The Living World	<ul style="list-style-type: none"> <li>• Understanding the diversity of natural ecosystems globally and the opportunities and challenges they provide for humans who interact with them (focus: tropical rainforests and hot deserts)</li> </ul>
<b>SPR1</b>	Urban Issues	<ul style="list-style-type: none"> <li>• Understanding the opportunities and challenges of living in large megacities including Rio de Janeiro (Brazil) and London</li> </ul>
<b>SP2</b>	Human Fieldwork	<ul style="list-style-type: none"> <li>• Human fieldwork to involve investigation into opportunities and challenges of living in a particular area in London</li> </ul>
<b>SUM1</b>	Physical Landscapes: Coasts	<ul style="list-style-type: none"> <li>• Coastal processes, landforms and management issues</li> </ul>
<b>SUM2</b>	Physical Landscapes: Rivers	<ul style="list-style-type: none"> <li>• River processes, landforms and management issues</li> </ul>

## Assessment Details

Students will undertake knowledge quizzes, multiple choice questions (MCQs) and answer geographical enquiry questions through extended writing tasks designed to show the knowledge or skills learned in lessons. Each term there will be a ‘termly formative’ where students will complete a MCQ and an extended writing task. This enables us to identify students’ strengths and areas for re-teach in order to develop pupil knowledge. At the end of the year, there will be a Summer Assessment covering the year’s content.

## Exam Board: AQA



## Subject Aim

Through studying French in Year 9, pupils will be able to communicate in spoken and written French, with a grammatical focus on conjugating verbs across multiple tenses. Pupils will continue to build their speaking and listening skills, whilst also beginning to produce written and spoken French spontaneously. Culturally, pupils will learn about French festivals and the French school system.

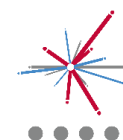
## Year 10 Termly Overview

Term	Enquiry Question	Key subject knowledge
Autumn 1	<i>Qui suis-je ?</i> Who am I ?	Explain family relationships using reflexive verbs. Discuss friends and what makes a good friend. Use past, present and future tenses to describe time with friends and family.
Autumn 2	<i>Le temps des loisirs</i> Leisure time	Discuss your hobbies – including sports, online life, reading, films and TV. Use <i>depuis</i> with the present tense. Contrast current hobbies using the imperfect tense.
Spring 1	<i>Jours ordinaires, jours de fête</i> Ordinary days, festival days.	Discuss your daily life using <i>pouvoir</i> and <i>devoir</i> . Discuss food using the pronoun <i>en</i> . Describe celebrations and festivals, using <i>venir de</i> .
Spring 2	<i>De la ville à la campagne.</i> From city to countryside.	Describe where you live, using the pronoun <i>y</i> . Discuss your local area and what there is to see and do. Describe weather and local communities.
Summer 1	<i>Les vacances.</i> The holidays.	Describe what you do on holiday (past, present, future). Book and review hotels and restaurants. Discuss travelling using <i>avant de</i> . Describe holiday disasters using the pluperfect tense.
Summer 2	<i>Au collège.</i> At school.	Discuss your school and compare with French-speaking schools. Describe school rules and how to get the best out of school. Describe school trips.

## Assessment Details

Pupils will be assessed in their communication and understanding of French across four skills; reading, writing, speaking and listening. They will also be assessed on their knowledge of vocabulary, grammatical structures and their translation skills. At GCSE, French is assessed at Higher and Foundation tier with three written exams (writing, reading and listening) and a short speaking exam. Each exam is equally weighted.

## Exam Board: Edexcel.



## Subject Aim

Through computer science our students will use technology as a tool for learning and expression in a variety of disciplines and interests, becoming not just consumers of technology but creators of it. As a result, students will be empowered use technology as an accessible medium for creative and personal expression, as well as a tool for representing and solving problems. Finally, we want students to learn about the wider issues surrounding the use of technology in society, through engaging in discussions and reflecting upon the ethical, legal, and environmental issues, and developing digital literacy.

## Year 10 Termly Overview

Term	Enquiry Question	Key subject knowledge
Autumn 1	How does a computer think?	<ul style="list-style-type: none"> <li>• Be able to list the components of the CPU and explain their purposes</li> <li>• Be able to draw logic circuits and Truth Tables for second level logic circuits.</li> <li>• Be able to calculate file sizes</li> <li>• Be able to convert between binary, denary, and hexadecimal and perform calculations with the different number bases</li> </ul>
Autumn 2	What is sequence, iteration, and selection?	<ul style="list-style-type: none"> <li>• Be able to assign values to and perform operations on variables, as well as utilize selection and iteration to control how a program is executed</li> <li>• Understand how Cache size, clock speed, and number of cores affects CPU performance</li> <li>• Know the difference between Primary storage and secondary storage, RAM, and ROM</li> </ul>
Spring 1	How can we use decomposition and abstraction in our code?	<ul style="list-style-type: none"> <li>• Be able to describe and give examples of a range of different embedded systems</li> <li>• Be able to use trace tables to track a piece of code as it runs</li> </ul>
Spring 2	How can we interpret written code?	<ul style="list-style-type: none"> <li>• Understand why it is useful to use subprograms</li> <li>• Be able to code with subprograms</li> </ul>
Summer 1	How is technology incorporated in our lives?	<ul style="list-style-type: none"> <li>• Being able to explain the advantages and disadvantages of peer to peer and client-server networks</li> <li>• Being able to explain the difference between LANs and WANs</li> <li>• Be able to distinguish when different protocols should be used</li> <li>• Be able to discuss the ethical, privacy, environmental, and cultural concerns surrounding networks and the internet</li> </ul>
Summer 2	How can we ensure our code is running effectively?	<ul style="list-style-type: none"> <li>• Be able to compare the efficiency of different searching and sorting algorithms</li> <li>• Be able to code authentication and input validation</li> <li>• Be able to identify logic and syntax errors in your code</li> </ul>

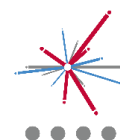
## Assessment Details

Pupils will undertake two assessment papers; they are both worth 50% of the total marks and are 80-mark papers lasting 1 hour 30 minutes. The first paper will consist of short and medium answer questions. There will also be one 8-mark extended response question.

The second paper is split into section A and section B. Section A is worth 50 marks and assesses students' knowledge and understanding of concepts of Computer Science. Students then apply these to problems in computational terms, where they may use an algorithmic approach.

Section B is worth 30 marks and assesses students' Practical Programming skills and their ability to design, write, test, and refine programs. The question paper will consist of short and medium answer questions.

## Exam Board : OCR



## Subject Aim

Through Physical Education students will develop a desire to partake in regular physical activity. They will be equipped with the constant opportunity to develop motor competency, backed by a curriculum offer that allows pupils to master skills. The route of physical education allows pupils to gain an insight into the necessity of physical activity and the invaluable impact it has on an individual's physical, social and emotional wellbeing.

## Year 10 Termly Overview

Term	Enquiry Question	Key subject knowledge
Autumn 1	How does the skeletal and muscular system support movement?	<p>Practical – Invasion Games, Individual Games, Health and wellbeing, tactical awareness</p> <p>Theory – The structure and function of the skeletal system. The structure and function of the muscular system</p>
Autumn 2	How does the cardiovascular and respiratory system work at rest and during exercise	<p>Practical – Invasion Games, Individual Games, Health and wellbeing: • A range of techniques/skills within varying game contexts • Tactical awareness</p> <p>Theory – The cardiovascular and respiratory system</p>
Spring 1	What are the effects of exercise on different body systems	<p>Practical – Invasion Games, Individual Games, Health and wellbeing: • A range of techniques/skills within varying game contexts • Tactical awareness</p> <p>Theory – The short term and long-term effects of exercise on the muscular, cardiovascular, and respiratory system</p>
Spring 2	How can the knowledge of components of fitness and principles of training enhance a training program	<p>Practical – Invasion Games, Individual Games, Health and wellbeing: • A range of techniques/skills within varying game contexts • Tactical awareness</p> <p>Theory – The principles of training. The Components of fitness. Preventing Injury in physical activity and training</p>
Summer 1	What are the key factors and groups for engagement in sporting activity	<p>Practical – Invasion Games, Individual Games, Health and wellbeing: • A range of techniques/skills within varying game contexts • Tactical awareness</p> <p>Theory – Engagement Patters of different social groups</p>
Summer 2	How does the commercialisation of physical activity effect sport	<p>Practical – Invasion Games, Individual Games, Health and wellbeing: • A range of techniques/skills within varying game contexts • Tactical awareness</p> <p>Theory – Commercialisation of physical activity and sport. The golden triangle. Effects of sponsorship on sport, athlete, and spectator.</p>

## Assessment Details

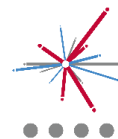
Theory: At GCSE level, Students have two exam papers and these are worth equal weighting.

Practical: Pupils will be assessed in their ability to perform skills within competitive situations, taking into account pupil's ability to perform with accuracy/disguise and precision. At GCSE level students will need to use 3 sports for their assessment, this must be from a mixture of individual and team sports

## Exam Board: OCR



# Music



## Subject Aim

In many ways learning music is much like learning a language. For students, learning how to understand music, read music or play an instrument can change the brain and impact other areas of learning.

Through Music, students will develop creativity, character and confidence. They will increase their understanding of a variety of styles, music theory and history; increasing their cultural capital.

## Year 10 Termly Overview

Term	Enquiry Question	Key subject knowledge
Autumn 1	What are the musical elements of <i>Africa</i> by Toto? (set work)  Developing musical literacy & keyboard skills	Concepts of melody, harmony and tonality:  Inversions, dissonance, range, intervals, pentatonic, blue notes, modulations to relative major/minor.
Autumn 2	What are the elements of Film Music 1?  How can I develop a chord sequence?	Concepts of melody, harmony and tonality, texture, rhythm, sonority and special effects to represent the on screen image.
Spring 1	What are the elements of Film Music 2?  How can I compose a melody to fit my chords?	Special effects, extreme dynamics and tempi, varying time signatures, chromatic and extended harmonies.  The relationship between melody and chords
Spring 2	What are the musical elements of <i>Badinerie</i> by Bach? (set work)  How can I establish a genre in my free composition?	Features of baroque music: Diatonic, sequence, contrapuntal, imitation, pedal, orchestra  Loops, samples, panning, phasing, melismatic/syllabic
Summer 1	What are the musical elements of Jazz & Blues?  How can I create and develop an idiomatic bassline?	Harmonic features: Primary and secondary chords, cadences, standard chord, progressions, power chords,  Rhythmic devices such as syncopation, driving rhythms.
Summer 2	What are the musical elements of Popular music?  How can I create countermelodies and develop texture?	Strophic form, 32 bar song form, verse, chorus, middle 8, riffs, bridge, fill, break, intros and outros, backing tracks, improvisation.  Polyphonic, layered, round, canon and countermelody

## Assessment Details

Students will be assessed on practical work, such as performances and compositions. Theory-based assessments will take place as listening exams, on a half termly basis.

## Exam Board : Eduqas



## Subject Aim

In Year 10 the Art curriculum shifts gears, pushing students towards a state of increased autonomy and self-awareness as artists. The first year of the course is built around the 'Feast' coursework project, which represents 60% of the final grade. Through this varied project, students will continue developing their already broad skill-base and learn how established artists tell the story of their own practise through sketchbooks and portfolios. After the mock exam, students begin their second coursework project 'Wearable Sculpture'.

## Year 10 Termly Overview

Term	Enquiry Question	Key subject knowledge
Aut 1	How do artists use sketchbooks?	<ul style="list-style-type: none"> <li>• Bratby, Tillmans &amp; the YBA's.</li> <li>• Sketchbook presentation and basic photography skills.</li> <li>• Annotation &amp; analysis.</li> <li>• Collage after Gordon, Letinsky and Lassry.</li> </ul>
Aut 2	How do artists experiment with techniques and materials?	<ul style="list-style-type: none"> <li>• Drypoint and intaglio after Thiebaud.</li> <li>• Short experiments after Creed, Ruscha and Self.</li> <li>• Painterly studies after Soutine, Rembrandt and Bacon.</li> <li>• Remixing art history through collage.</li> </ul>
Spr 1	How do artists translate work between sculptural and 2D media?	<ul style="list-style-type: none"> <li>• Timelapse after Taylor-Johnson.</li> <li>• Using mixed-media to 'distress' images.</li> <li>• Sculpture in clay and casting after Roth.</li> <li>• Soft sculpture with textiles after Oldenburg.</li> </ul>
Spr 2	How do artists develop and refine their own ideas?	<ul style="list-style-type: none"> <li>• Investigation of branding and 'serving vessels'.</li> <li>• Lino printing after Warhol.</li> <li>• Packaging brief after Rosenquist and Lichtenstein.</li> <li>• 'Installation' outcome using sculptural work.</li> </ul>
Sum 1	How do artists resolve a cycle with climactic or summative work?	<ul style="list-style-type: none"> <li>• Project review and evaluation.</li> <li>• Independent research phase.</li> <li>• Photography and performance after Ritson, Hamilton &amp; Parr.</li> <li>• Meal brief after Chicago.</li> <li>• Mock Exam.</li> </ul>
Sum 2	How can established disciplines intersect or overlap?	<ul style="list-style-type: none"> <li>• Introduction to Wearable Sculpture.</li> <li>• Paper craft experiments.</li> <li>• Basic card construction techniques.</li> <li>• Recycling junk materials.</li> <li>• T-Shirt brief.</li> </ul>

## Assessment Details

Students will receive checklist style feedback on their Feast project which they must act upon. In Art students' work is assessed by staff, who are in turn moderated externally.

## Exam Board: AQA.



## Subject Aim

Through studying Design and Technology pupils will experience an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art.

Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world, particularly in sustainability and the environment.

## Year 10 Termly Overview

Term	Enquiry Question	Key subject knowledge
Aut 1	<i>Why should we work in teams?</i>	<ul style="list-style-type: none"> <li>• How to work collaboratively to a brief</li> <li>• How to conduct research</li> <li>• How to generate ideas</li> <li>• How to model and prototype</li> </ul>
Aut 2	<i>How can we help others through design?</i>	<ul style="list-style-type: none"> <li>• How to design iteratively</li> <li>• How to manufacture to a budget</li> <li>• How to brand and package</li> <li>• How to pitch and present a product</li> </ul>
Spr 1	<i>What are the properties of materials?</i>	<ul style="list-style-type: none"> <li>• To experience working with textiles</li> <li>• To experience working with paper</li> <li>• To experience working with metal</li> <li>• To experience working with plastic</li> </ul>
Spr 2	<i>How are we influenced by the design of others?</i>	<ul style="list-style-type: none"> <li>• To learn about the work of a range of product designers</li> <li>• To learn about the work of a range of fashion designers</li> <li>• To learn about the work of a range of architects</li> <li>• To analyse influential design and deliver presentations</li> </ul>
Sum 1	<i>What are the properties of materials (specialism)?</i>	<ul style="list-style-type: none"> <li>• How timber behaves</li> <li>• How trees become products</li> <li>• To experience working with wood</li> </ul>
Sum 2	<i>How do designers work?</i>	<ul style="list-style-type: none"> <li>• How designers explore problems and generate ideas</li> <li>• Identifying a client or need for the NEA</li> </ul>

## Assessment Details

Students will receive regular feedback based on diagnostic assessment on a variety of topics. Multiple choice questioning, short answer written questions and design work throughout KS4 that will prepare students for the rigor of the Design & Technology GCSE exam. During KS4, pupils will complete an the NEA (Non-examined assessment / coursework) that they will be assessed as part of their GCSE.

The GCSE is assessed through an NEA (Non-examined assessment/coursework) and an exam.

## Exam Board: AQA

# Drama



## Subject Aim

Studying Drama allows students to build a variety of skills and attributes that are essential for the working world; developing empathy and understanding in their personal lives, as well as a depth of knowledge and appreciation of theatre, as an art form. Students will develop their confidence, team-working skills, public speaking skills and creativity. Through studying drama, students will be able to problem-solve, tackle issues in the community and world around them through role-play and learn about key theatre practitioners and playwrights; both classical and contemporary.

## Year 10 Termly Overview

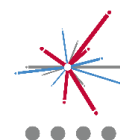
Term	Enquiry Questions	Key subject knowledge
Aut 1	Who are the key practitioners?	<ul style="list-style-type: none"><li>• Students participate in weekly workshops exploring different practitioners</li><li>• Students develop their devising skills using the techniques of each practitioner</li></ul>
Aut2	How can we create 'highly imaginative' ideas from a stimulus?	<ul style="list-style-type: none"><li>• Students are given an exam stimulus and devise a piece of theatre in groups</li></ul>
Spr 1	What is clear and consistent characterisation?	<ul style="list-style-type: none"><li>• Students are given a set text which they will explore practically</li></ul>
Spr 2	How do we write about theatre?	<ul style="list-style-type: none"><li>• Evaluation of performance skills</li><li>• Use of LARA and MARA techniques to write about theatre</li></ul>
Sum 1	How can we develop and refine a piece of theatre?	<ul style="list-style-type: none"><li>• Students use a stimulus to devise a piece of theatre for component 1</li><li>• Students learn how to write a portfolio</li></ul>
Sum 2	What does a perceptive evaluation look like?	<ul style="list-style-type: none"><li>• Evaluation of live theatre and a set text</li></ul>

## Assessment Details

Students will complete regular practical assessments, focusing on the use of voice, movement and space in performance, creation of character and the use of theatre styles and conventions, both through devised and script-based work. They will also complete multiple-choice style questions assessing their key knowledge of the subject.

**Exam Board: WJEC Eduqas specification.**

# Religion and Philosophy



## Subject Aim

Through studying Religion and Philosophy students will develop in confidence and knowledge of their own beliefs and values to be able to eloquently express and debate them. Students will also build their knowledge of the nature, significance and impact of world religions in contributing to a cohesive and compassionate society. The GCSE will focus specifically on Christianity, Islam and non-religious perspectives in relation to the religions themselves and topical issues (listed below), allowing students to come to well-reasoned conclusions and sound judgements on ethical and moral debates.

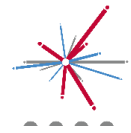
## Year 10 Termly Overview

Term	Enquiry Question	Key subject knowledge
AUT 1	What do Christians believe?	<ul style="list-style-type: none"><li>• The nature of God</li><li>• Creation and Original Sin</li><li>• The Trinity</li><li>• Jesus Christ</li><li>• The Incarnation, Crucifixion, Resurrection, and Ascension</li><li>• Salvation</li></ul>
AUT 2	How do Christian beliefs shape Christian practices?	<ul style="list-style-type: none"><li>• Key Christian practices</li><li>• Worship and festivals</li><li>• Sacraments (Baptism and the Eucharist)</li><li>• Pilgrimage</li><li>• The role of the church in the local and worldwide community</li></ul>
SPR 1	What do Muslims believe?	<ul style="list-style-type: none"><li>• Key Muslim beliefs</li><li>• Authority and differences between Sunni and Shia Muslims</li><li>• Core beliefs regarding Allah, such as Tawhid</li><li>• Foundations of Faith: The Five Pillars, the Six Articles of Faith, the Five Roots, and the Ten Obligatory Acts</li><li>• Prophets and their messages</li><li>• Holy books (Quran, Hadith, Sunnah and Tawrat)</li></ul>
SPR 2	How do Muslim beliefs shape Muslim practices?	<ul style="list-style-type: none"><li>• Key Muslim practices</li><li>• Worship</li><li>• Duties</li><li>• Festivals</li><li>• Pilgrimage</li></ul>
SUM 1	What do religious believers think about issues around life and death?	<ul style="list-style-type: none"><li>• The origins and value of the universe</li><li>• The origins and value of human life</li><li>• Modern topics around the value of life: abortion and euthanasia</li><li>• Life after death</li><li>• Heaven and hell</li></ul>
SUM 2	What do religious believers think about issues around relationships?	<ul style="list-style-type: none"><li>• Sex, marriage and divorce</li><li>• Family types</li><li>• The role of the family and how it has evolved</li><li>• Issues around cohabitation, sexuality and contraception</li><li>• Families and gender equality</li></ul>

## Assessment Details

The GCSE exam paper comprises of a variety of questions, including multiple choice questions, short answer questions and essay-based questions where students are required to take a position on an issue or topic. Students understanding of the content will be assessed by regular knowledge quizzes and multiple-choice style questions throughout the lesson and within allocated time periods.

## Exam Board: AQA – Religious Studies A– GCSE



## University, Careers & Enrichment

We are committed to ensuring every Ark Pioneer pupil has high aspirations for themselves. We will inspire them to think more deeply and more broadly about the world around them and the opportunities it presents. A key part of this will be ensuring each pupil understands the impact that school and further education can have on their future life.

### University & Careers

We want every pupil to do well enough to go to university or pursue the career of their choice. To support this, we will ensure that alongside setting high expectations for academic progress, we will focus on building the habits and skills most desired by employers and universities.

As part of our tutor and assemblies programme, and within the curriculum for each subject, we will teach the key learning dispositions needed to succeed at university and in the workplace. Pupils will learn to be independent and organised. We will teach them how to take notes and conduct research, how to listen, discuss and debate; they will be confident speaking in public. In addition to this, we will guarantee access and exposure to the experiences that will help them to shape a vision for their own future and guide their decisions about their university or career pathway after school. During assemblies and tutor time, we will introduce and discuss further study, career options and aspirational role models. Guest speakers will share their career insights with pupils.

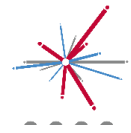
All of our pupils will visit a university each year, with visits increasingly tailored to individual aspirations as they get older. This will give them a comprehensive understanding of a range of careers and the qualifications, skills and experiences they need in order to pursue them.

### Enrichment

We will run a variety of enrichment sessions for our pupils, giving them the chance to develop interests and passions that will give them enjoyment throughout their lives.

Every pupil at Ark Pioneer will take part in two enrichment activities per week, built into our extended school day. Pupils will be able to choose from activities ranging from cooking, debating and drama to coding, football and singing in our school choir.

In addition to this, our pupils will be invited to take part in music and sports enrichments over lunch time through the week. Our school sports teams will train after school and our musicians and singers will have the opportunity to take part in the Ark network choir (Spark) and orchestra (Fusion) in addition to school based music enrichments. We will offer subsidised instrumental lessons for all pupils, which will take place through the school day.



# Values & Character Development

## Our values

Our values define how we work together as a community in Ark Pioneer. They are a framework to guide our interactions and communications, to recognise and reinforce the behaviours we want to see in our community and to embed our ambitious vision.

Our values set out the way in which we approach our work as professionals in education. All of our staff will understand the importance, relevance and impact of each value through our induction and training programme.

We will teach pupils explicitly about our values through assemblies and the tutor programme and our pillar days. They will set the bar for pupils as they grow into young adults, ready for life beyond school.

## Building strong character traits

At Ark Pioneer, we will build on each child's character and habits to support both their academic and personal development. Our character programme will teach pupils about nine personal attributes: *Curiosity, Honesty, Altruism, Reflectiveness, Adaptability, Courage, Tenacity, Empathy and Responsibility* through concrete examples.

We will develop pupils' understanding of these key character traits throughout their life at Ark Pioneer academy and across the curriculum, including through our enrichment programme. We believe this will enable our pupils to be both successful learners and active participants within their communities and wider societies.