

Subject area	Art/Technology	Department	Art/Technology
HoD	Miss H Evans	HOD email	hevans@airedaleacademy.com
Department staff	H Evans, N Amos, S Stanley and S Worrilow		

Year group	9	Option		Subject name	GCSE Art
Periods/week	2	Qualification	AQA GCSE Art and Design		
Weblink	http://web.aqa.org.uk/qual/newgcse/art_dan_dra_m				

Overview

A general art course which enables students to explore a wide range of media, themes and approaches to art and design.

Year 9 is seen as a "Foundation" year when students extend their experience of media, develop basic skills and learn about different traditions of art and design.

Units studied

Areas of study may include:

- Patterns around the world
- Colour
- Expressionist art and artists
- Still life
- Print making
- Textile and fabric
- Ceramics
- Mixed media and
- Painting technique

Assessment

In line with GCSE marking scheme.

Other info

Subject area	Art/Technology	Department	Art/Technology
HoD	Miss H Evans	HOD email	hevans@airedaleacademy.com
Department staff	H Evans, N Amos, S Stanley and S Worrilow		

Year group	9	Option		Subject name	GCSE Catering
Periods/week	2	Qualification	WJEC GCSE Catering		
Weblink	http://www.wjec.co.uk/qualifications/hospitality-and-catering/				

Overview

The GCSE Catering specification offers a unique opportunity for candidates to develop their knowledge and extend their skills within catering in a vocational context. It is a suitable qualification for those who want a broad background in this area and for those who wish to progress to further education.

Units studied

GCSE Catering requires learners to demonstrate knowledge and understanding of:

- the industry: accommodation; food and beverage; front of house
- the types of products and services provided
- a range of customer groups
- job roles, career opportunities and relevant training
- appropriate forms of communication within the industry
- the importance of record keeping
- the range of equipment used in the hospitality and catering industry.

Assessment

Unit 1: TWO practical tasks (controlled assessments) that pupils research, plan and evaluate.
Unit 2: ONE written paper of 1¼ hours externally set and marked.

Other info

Subject area	Business	Department	Business
HoD	Mr L Wharin	HOD email	lwharin@airedaleacademt.com
Department staff	L Wharin, S Wharin and C Coleyshaw		

Year group	9	Option		Subject name	GCSE Business Studies
Periods/week	2	Qualification	GCSE Business Studies		
Weblink	http://www.edexcel.com/quals/gcse/gcse09/Business/				

Overview

Students of our Applied Business GCSE will:

- actively engage in the study of business to develop as effective and independent students and as critical and reflective thinkers with enquiring minds
- develop and apply their knowledge, understanding and skills to contemporary issues in a range of local, national and global contexts
- appreciate the range of perspectives of different business stakeholders
- consider the extent to which business activity can be ethical and sustainable.

Units studied

The business world is constantly changing. The new course has been updated to give pupils the chance to learn about these changes as well as covering conventional material. There are two units to study on this course.

Unit 1

This unit is an investigation into what business enterprise is all about, including how businesses are organised and how people are involved. It also looks at new issues such as 'ethical' and 'green' business. You will focus on one local and one national or international business.

Unit 2

This unit focuses on how businesses record financial transactions, make payments and keep records of how they are doing. You will learn about balance sheets, profit and loss accounts and how to use these to understand business performance in a practical context.

Assessment

Unit 1 60% Controlled Assessment:

Pupils will carry out an investigation into you their two chosen businesses and will use the information gathered to respond to tasks set by the examining board. These tasks will be published in advance so that you will know what to expect. The completed tasks will be submitted to the exam board once they have been marked by your teachers.

Unit 2 40% Examination:

Pupils will apply their learning to the questions asked in an externally assessed test.

Other info

Subject area	<input type="text" value="Dance"/>	Department	<input type="text" value="Dance"/>
HoD	<input type="text" value="Mrs R Kelly"/>	HOD email	<input type="text" value="rdavies@airedaleacademy.om"/>
Department staff	<input type="text" value="R Kelly"/>		

Year group	<input type="text" value="9"/>	Option	<input type="text" value=""/>	Subject name	<input type="text" value="GCSE Dance"/>
Periods/week	<input type="text" value="2"/>	Qualification	<input type="text" value="AQA GCSE Dance"/>		
Weblink	<input type="text" value="http://web.aqa.org.uk/qual/newgcse/art_dan_dra_mus/new/dance_overview2.php"/>				

Overview

• The course promotes fitness, a healthy lifestyle, team working and creativity. It actively engages students in the process of dance in order to develop as effective and independent learners and as critical and reflective thinkers with enquiring minds

Units studied

Unit 1 - Critical Application 20% written examination
Unit 2 - Performance of a set dance 20% Practical examination
Unit 3 - Performance in a Duo / Group 20% Controlled assessment
Unit 4 - Choreography 40% Controlled assessment.

Assessment

External exam, 1 hour written paper and controlled assignments
Greater focus on practical work with 80% of the total marks for performance and choreography and the written exam only 1 hour

Other info

Lots of extra curriculum activities on offer.
Opportunities for live performances and theatre trips.
Whole school productions and visitor workshops.

Subject area	Discover	Department	Discover
HoD	Mrs S Chambers/Miss A Barre	HOD email	tchambers@airedaleacademy.com/abarre
Department staff	Various		

Year group	9	Option		Subject name	GCSE Product Design
Periods/week	2	Qualification	AQA GCSE Product Design		
Weblink	http://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-product-design-4555				

Overview

Pupils who opt to study Product Design at GCSE will have the opportunity to develop and expand the skills they learnt in Key Stage 3. Year 9 & 10 concentrate on honing skills such as investigating design opportunities, developing design proposals, making, testing and evaluating and communication. Year 11 focuses on using these skills to complete a final Controlled Assessment which accounts for 60% of the final qualification.

Units studied

- 1)The evoluCon of product design,
- 2)MeeCng consumer needs,
- 3)Design in pracCce,
- 4)Packaging and markeCng,
- 5)Design in human context,
- 6)Global responsibility,
- 7)Product manufacture,
- 8)The use of ICT in producCon,
- 9)Manufacturing processes,
- 10)Sources and properCes of materials,
- 11)ManipulaCng and combining materials.

Assessment

Written paper: 40% of total marks. 120 marks, 2 hours

Controlled Assessment: 60% of total marks.

A single design-and-make activity selected from a choice of set tasks, consisting of the development of a made outcome and a concise design folder and/or appropriate ICT evidence

Other info

Subject area	Drama	Department	Drama
HoD	Mr R Billings	HOD email	rbilling@airedaleacademy.com
Department staff	R Billings, T Bell, R Nickerson		

Year group	9	Option		Subject name	BTEC Performing Arts
Periods/week	2	Qualification	BTEC First in Performing Arts (Acting)		
Weblink	http://www.edexcel.com/quals/firsts2012/performing-arts/Pages/default.aspx				

Overview

Performing Arts is a practical based subject which allows pupils to develop their skills in a number of areas.

Units studied

Unit 1 Individual showcase 30GLH
Externally assessed- Learners will complete a letter of application and a presentation / audition in response to a selected progression opportunity.

Unit 2 Preparation, Performance and production 30GLH
Develop a performance piece as a member of a fictional performance company. Develop skills in preparation, production and performance.

Assessment

Both Internal and external. Assignments and live performances.

Other info

There are lots of extracurricular activities on offer with opportunities for live performances and visits to the theatre. There are whole school productions and visitor workshops to take part in.

Subject area	<input type="text" value="Drama"/>	Department	<input type="text" value="Drama"/>
HoD	<input type="text" value="Mr R Billings"/>	HOD email	<input type="text" value="rbilling@airedaleacademy.com"/>
Department staff	<input type="text" value="R Billings, T Bell, R Nickerson"/>		

Year group	<input type="text" value="9"/>	Option	<input type="text" value=""/>	Subject name	<input type="text" value="GCSE Drama"/>
Periods/week	<input type="text" value="2"/>	Qualification	<input type="text" value="Edexcel GCSE Drama"/>		
Weblink	<input type="text" value="http://www.edexcel.com/migrationdocuments/GCSE%20New%20GCSE/UG030946_GCSE_Drama_Spec_2012.pdf"/>				

Overview

Drama is a practical based subject which allows pupils to develop their skills in a number of areas.

Units studied

Unit 1 - Drama Exploration (30% of the GCSE)

Overview of content

The student will explore a devised topic/theme/issue.

Overview of assessment

Students will take part in a six-hour practical exploration.

Students will produce a documentary response (recommended maximum 2000 words)

Unit 2 - Exploring Play Texts (30% of the GCSE)

Overview of content

The student will study using explorative strategies a full and substantial play text.

The student is required to experience live theatre as a member of the audience.

Overview of assessment

Students will take part in a six-hour practical exploration of the play text.

Students will produce a documentary response to practical exploration (recommended maximum 1000 words)

Students will produce a documentary response to live theatre (recommended maximum 2000 words)

Unit 3 - Drama Performance (40% of the GCSE)

Overview of content

To allow the student to demonstrate knowledge and understanding of practical drama skills through their application in a live performance and to communicate to an audience.

Overview of assessment

Students will present their work as either performers or performance support students in a single performance to an examiner appointed by Edexcel.

Assessment

Both Internal and external. Assignments and live performances.

Other info

There are lots of extracurricular activities on offer with opportunities for live performances and visits to the theatre. There are whole school productions and visitor workshops to take part in.

Subject area	English	Department	English
HoD	Mrs L Reader	HOD email	lreader@airedaleacademy.com
Department staff	L Reader, C Sansom, J Healy, G Skyner, A Varley, K Wilson, A Blaikie, S Smyth, K Field, V Lewis. A Fowler		

Year group	9	Core	Subject name	GCSE English
Periods/week	4	Qualification	Foundation year for GCSE course	
Weblink	http://www.wjec.co.uk/index.php?subject=51&level=7			

Overview

Students in Year 9 follow a broad curriculum in English with opportunities to enjoy and make progress in all aspects of English: reading, writing and speaking and listening. In Year 9, we aim to prepare students for GCSE English Language and Literature courses by learning the skills they will need to be successful at GCSE. Students learn to write for different purposes and audiences, including narrative and descriptive writing as well as a variety of non-fiction text types, such as letters and articles. They will study poetry and read a class novel. The reading of fiction and non-fiction extracts from pre nineteenth century and current eras reflect the texts and skills taught for the new GCSE in English and English Literature, where students will begin to analyse language in depth.

As it features heavily on the GCSE criteria, spelling, punctuation and grammar is a key focus with year 9.

Units studied

Term 1
Gothic Narrative Writing
Class Text 'Of Mice and Men' by John Steinbeck or other text

Term 2
'A Christmas Carol' by Charles Dickens
War and Conflict

Term 3
The Titanic
Introduction to Shakespeare

Assessment

In English, students are assessed on reading, writing and speaking and listening both formally and informally.

Each week, Year 9 students should complete an extended independent writing task, which we refer to as their 'Big Write'. These are marked in detail and students are asked to respond to the feedback they have been given, allowing them to show progress. At the end of each half term, all of these extended writing tasks are reviewed and a level is reported home.

Other info

Subject area	French	Department	French
HoD	Mr S Le Gall	HOD email	slegall@airedaleacademy.com
Department staff	S Chambers, S Le Gall and K McCarthy		

Year group	9	Core	Subject name	GCSE French
Periods/week	2	Qualification	Edexcel GCSE French	
Weblink	www.edexcel.com			

Overview

Students will work towards completion of their French GCSE. They will work on all 4 key-skills of writing, listening, reading and speaking. They will be introduced to the concept of controlled assessments in writing and speaking.

Units studied

Common topics studied in the GCSE syllabus are holidays, work experience, personal information, school and future plans as well as leisure activities.

Assessment

GCSE assessments are divided between writing and speaking which are controlled assessments (All students are completing work during lessons and work is eventually externally assessed by the exam board) and reading and listening who are reviewed throughout the year but are assessed at the end of the year.

- Speaking (2 assessments): each assessment worth 15% of GCSE
- Writing (2 assessments): each assessment worth 15% of GCSE
- Reading (1 assessment): worth 20% of GCSE
- Listening (1 assessment): worth 20% of GCSE

Other info

Subject area	Geography	Department	Geography
HoD	Miss D Forrester	HOD email	dforrester@airedaleacademy.com
Department staff	D Forrester, R Dudderidge, M Leake, K Elliott, M Parkin		

Year group	9	Core	Subject name	GCSE Geography
Periods/week	2	Qualification	AQA GCSE Geography	
Weblink	www.aqa.org.uk/GeogA			

Overview

GCSE Geography has a focus on the geographical processes that shape our world through a study of physical and human geography in discrete, self contained topic areas. The use of topical case studies ensures that the subject remains relevant to the ever changing world in which we live. In addition, it provides the opportunity to develop communication; map; ICT; Interpersonal; literacy; numeracy; problem solving and entrepreneurial skills.

This qualification lays an appropriate foundation for further study of geography or related subjects. Furthermore, it provides a worthwhile course for candidates of various ages and backgrounds in terms of general education and lifelong learning.

Units studied

Physical Geography:-
Water on the Land.

The key ideas are as follows: The shape of river valleys changes as rivers flow downstream due to the dominance of different processes. Distinctive landforms result from different processes as rivers flow downstream. The amount of water in a river fluctuates due to a number of reasons. Rivers flood due to a number of physical and human causes. Flooding appears to be an increasingly frequent event. The effects of and responses to floods vary between areas of contrasting levels of wealth. There is discussion about the costs and benefits of hard and soft engineering and debate about which is the better option. Rivers are managed to provide a water supply. There are a variety of issues resulting from this.

Human geography:-
Changing Urban Environments.

The key ideas are as follows: Urbanisation is a global phenomenon. Urban areas have a variety of functions and land uses. There are aspects of urban living in a richer part of the world that need careful planning in order to support the population and environment of cities and towns. Rapid urbanisation has led to the development of squatter settlements and an informal sector to the economy. Rapid urbanisation in a poorer part of the world requires the management of the environmental problems caused. Attempts can be made to ensure that urban living is sustainable.

Assessment

Pupils are assessed throughout the course by a combination of regular exam practice (at home and in class), end of unit tests and a mock examination in the summer term.

Other info

Subject area	Health and Social Care	Department	Health and Social Care
HoD	Mrs C Shillito	HOD email	cshillito@airedaleacademy.com
Department staff	C Shillito, M Sanderson, E Harrap		

Year group	9	Option		Subject name	BTEC Health and Social Care
Periods/week	2	Qualification	BTEC Level 1 & 2 Award in Health and Social Care		
Weblink	http://www.edexcel.com/quals/firsts2012/health-and-social-care				

Overview

This course is aimed at anyone who has an interest in working with people of all ages, in one of the many caring professions. The course will prepare students for the different types of jobs within the health and social care sector and for study at a higher level.

This course will appeal to you if you:

- Have a keen interest in Health and Social services and how they operate.
- Enjoy studying a subject that is relevant to your life and experiences.
- Want to move onto a related career or further education

All students will study 2 core units which are Human Lifespan Development and Health and Social Care Values, alongside a range of specialist units that will include promoting health and well-being, Child Care development, the impact of diet on health and the opportunity to gain a vocational experience in a Health, Social or Early years setting. You will follow a programme of study that enables progression to further courses and employment in the health and care services, and have the opportunity to develop key skills which are highly valued by employers and further education providers.

Units studied

Unit 3 – Effective Communication in Health and Social care

In this unit students will investigate the different forms of communication and how they are used effectively in health and social care. You will look at the importance of using clear speech, body language that shows you are interested in that people are saying.

Students will also investigate the difficulties some people experience in accessing health and social care, owing to barriers of communication. Students will learn how these can be overcome so that people can access health and social care services.

Unit 6 – The Impact of Nutrition on Health and wellbeing

In this unit students will explore what is meant by a balanced diet and its effects on the body. Students explore what is meant by an unbalanced diet and how this may lead to various types of ill health.

Assessment

This course is 80% coursework and 20% exam. All work is internally and externally verified. Students can achieve grade pass, merit, distinction or distinction*

You will be externally assessed by Edexcel on Human Lifespan Development, which will be a 1 hour exam. The rest will be coursework which will be assessed internally by your subject teacher.

Other info

Subject area	History	Department	History
HoD	Miss L Snaith	HOD email	lsnaith@airedaleacademy.com
Department staff	L Snaith, H Tordoff, S Wheatley and N Kelly		

Year group	9	Core	Core	Subject name	GCSE History - Modern World
Periods/week	2	Qualification	OCR GCSE History		
Weblink	http://www.ocr.org.uk/qualifications/type/gcse_2012/hss/history_b/				

Overview

History fires pupils' curiosity and imagination, moving and inspiring them with the dilemmas, choices and beliefs of people in the past. It helps pupils develop their own identities through an understanding of history at personal, local, national and international levels. It helps them to ask and answer questions of the present by engaging with the past. Pupils find out about the history of their community, Britain, Europe and the world. They develop a chronological overview that enables them to make connections within and across different periods and societies.

The History department at Airedale Academy is pleased to be able to offer two options for our students to study. The SHP focuses on the American West and Medicine through time where the OCR Modern World focuses on developments from 1890-1945 including the peace treaties after WWI and the build up to WWII

Units studied

How was British society changed, 1890--1918?

Term One:

What were working and living conditions like for the poor in the 1890s?

How were social reformers reacting to the social problems of the 1890s?

Why did the Liberal government introduce reforms to help the young, old and unemployed? How effective were these reforms?

Term Two:

What was the social, political and legal position of women in the 1890s?

What were the arguments for and against female suffrage?

How effective were the activities of the suffragists and the suffragettes?

How did women contribute to the war effort?

Term 3:

How were civilians affected by the war?

How effective was government propaganda during the war?

Why were some women given the vote in 1918?

What was the attitude of the British people at the end of the war towards Germany and the Paris Peace Conference?

Assessment

Students will be assessed on a half-termly basis using a combination of end of unit tests and level assessed pieces of writing.

Other info

Subject area	History	Department	History
HoD	Miss L Snaith	HOD email	lsnaith@airedaleacademy.com
Department staff	L Snaith, H Tordoff, S Wheatley and N Kelly		

Year group	9	Core	Subject name	GCSE History - Schools History Project
Periods/week	2	Qualification	OCR GCSE History	
Weblink	www.ocr.org.uk/qualifications/type/gcse_2012/hss/history_a/			

Overview

History fires pupils' curiosity and imagination, moving and inspiring them with the dilemmas, choices and beliefs of people in the past. It helps pupils develop their own identities through an understanding of history at personal, local, national and international levels. It helps them to ask and answer questions of the present by engaging with the past. Pupils find out about the history of their community, Britain, Europe and the world. They develop a chronological overview that enables them to make connections within and across different periods and societies. The History department at Airedale Academy is pleased to be able to offer two options for our students to study. The SHP focuses on the American West and Medicine through time where as the OCR Modern World focuses on developments from 1890-1945 including the peace treaties after WWI and the build up to WWII

Units studied

How and why has Medicine and Health changed through time?
Term One:
What is health care like today?
Why did people in Prehistoric Britain cut holes in to their heads?
Why did the Egyptians mummify their dead?
How did the Greeks make a major breakthrough that still influences the way we treat patients today?
What can we learn from the Romans about Public health?
What factors helped medicine to move forward/stay the same or regress?
Term Two:
What have planets and Stars got to do with the Black Death?
How did the church help and hinder medicine?
How did a criminal, a battle and a water pump lead to 3 separate breakthroughs in Medicine?
Should you trust a Quack Doctor?
Term 3
Why was surgery so dangerous in the early 1800s?
How were the problems of pain, infection and bleeding eventually solved?
What connection is there between a cow, a milkmaid and the first vaccination?
How did sour wine lead to the discovery of Germs?
Who identified which germs caused which disease?

Assessment

Students sit two final examinations. They will also have their controlled assessment unit. During the course they will be informally assessed on a half-termly basis using a combination of end of unit tests and level assessed pieces of writing.

Other info

Trips taken to the Thackray Medical Museum, theatre production on Medicine through time and a site visit to Ferrybridge.

Subject area	IT	Department	IT
HoD	Mrs L Robinson	HOD email	lrobinson@airedaleacademy.com
Department staff	Robinson, S Dakin and J Colleyshaw		

Year group	9	Option		Subject name	BTEC Media
Periods/week	2	Qualification	BTEC First Award in Creative Digital Media Production		
Weblink	http://www.edexcel.com/quals/firsts2012/cdmp/Pages/default.aspx				

Overview

BTEC Firsts in Creative Digital Media Production aims to provide a practical, real-world approach to learning and develop specific knowledge and skills learners need to work successfully in the Media industry. The qualification allows students to develop an understanding about the digital media sector and its many products. It also requires students to research, plan and present ideas for a new digital media product in response to a client brief.

Units studied

Unit 1: Digital Media Sectors and Audiences – in this unit, learners will explore the digital media industry and all the five key sectors that fall under it (Digital Moving Image, Digital Audio Production, Digital Publishing, Website Production and Digital Games Production). They will also explore the different types of audiences and how audiences can engage with each sector.

Unit 2: Planning and Pitching a Digital Media Product – in this unit, learners will use their verbal, written and visual communication skills to enable them to formulate, develop and pitch ideas for a product, which they then plan to produce.

Unit 3: Digital Moving Image Production – in this unit, learners investigate key features of digital moving image productions, including structures and generic conventions. Practical production focuses on the use of camerawork and how it is used to convey meaning in a specific product.

Unit 7: Digital Games Production – in this unit, learners will gain knowledge of 2D and 3D digital games platforms and audiences. Learners will then chose either a 2D or 3D game as the focus for practical production and will create pre-visuals for it as well as documenting all aspects of the game and the requirements of the player. A working game demo will be produced using assets that are placed in a game engine.

Assessment

Unit 1 is an online test (25%)
Unit 2 is controlled assessment (25%).
Unit 3 is controlled assessment (25%).
Unit 7 is controlled assessment (25%).

Other info

Subject area	IT	Department	IT
HoD	Mrs L Robinson	HOD email	lrobinson@airedaleacademy.com
Department staff	Robinson, S Dakin and J Colleyshaw		

Year group	9	Core	Subject name	Digital Literacy
Periods/week	1	Qualification	None	
Weblink	None			

Overview

This course helps students learn the essential skills to begin computing with confidence, be more productive at home and at work, stay safe online, use technology to complement their lifestyle, and consider careers where their skills can be put to work.

Units studied

The course

In year 9 the course is split in to eight different projects.

Project 1:Security

This project involves learning about different security issues such as viruses, phishing attempts, hacking and identity theft. It will also look at which type of network is most secure and backups and storage.

Project 2:Word processing

This project involves the students learning how to use Microsoft Word. This will be basic skills such as editing and formatting text and saving and printing documents. More advanced skills such as using templates, tables, objects and mail merge will also be learnt.

Project 3:Spreadsheets

This project involves the students learning how to use Microsoft Excel. They will learn how to enter data and format the data in a professional way. They will also create formulas and functions to make even the hardest task seem easy and learn how to present the data in the form of graphs and charts.

Project 4:Online Essentials

In an online world it is important that students learn what the online world is, what the dangers are as well as the benefits will be covered. Safe shopping, good passwords and netiquette will feature in this project.

Project 5:Media

Media focuses on creating multimedia components like audio, video and interactivity elements using various software. We will discuss concepts and how this relates to streaming technology, compression and quality. Other skills such as creativity and production values will also be assessed.

Assessment

Formal assessment every half term.

Other info

Subject area	IT	Department	IT
HoD	Mrs L Robinson	HOD email	lrobinson@airedaleacademy.com
Department staff	Robinson, S Dakin and J Colleyshaw		

Year group	9	Option		Subject name	GCSE Computing
Periods/week	2	Qualification	OCR GCSE Computing		
Weblink	http://www.ocr.org.uk/qualifications/gcse-computing-j275-from-2012/				

Overview

Computing is fast becoming a part of curriculums in schools, with the advancement of technology and with the need for more technical people in many work areas. GCSE Computing is an introduction to the world of computers and similar devices, how they work, how they communicate, and how we make them work. With elements of computer hardware, software, networking, programming and study of technology in society this is perfect for developing not only an understanding of technology, but of logical thinking and problem solving.

Units studied

Unit A451 - Computer systems and programming
Unit A452 - Current trends in computing (Controlled Assessment)
Unit A453 - Programming project (Controlled Assessment)

Assessment

Unit A451 is worth 40% of the overall grade (Written paper, examiner verified)
Unit A452 is worth 30% of the overall grade (centre marked and examiner verified)
Unit A453 is worth 30% of the overall grade (centre marked and examiner verified)

Other info

GCSE Computing is part of the EBacc.

Subject area	IT	Department	IT
HoD	Mrs L Robinson	HOD email	lrobinson@airedaleacademy.com
Department staff	Robinson, S Dakin and J Colleyshaw		

Year group	9	Option		Subject name	GCSE ICT
Periods/week	2	Qualification	Edexcel GCSE ICT		
Weblink	http://qualifications.pearson.com/en/qualifications/edexcel-gcses/ict-2010.html				

Overview

This course offers up to date and engaging content. Students will learn about current and emerging digital technologies and the issues raised by their use in a range of contexts. They will be encouraged to keep up-to-date with emerging technology as part of their learning experience.

Units studied

The course consists of:

Unit 1 – Living in an Online World (Externally a

In this unit students explore how digital technology impacts on the lives of individuals, organisations and society. They learn about current and emerging digital technologies and the issues raised by their use in a range of contexts (learning and earning, leisure, shopping and money management, health and wellbeing and on the move). They develop awareness of the risks that are inherent in using ICT and the features of safe, secure and responsible practice.

Unit 2: Using Digital Tools

This is a practical unit. Students broaden and enhance their ICT skills and capability. They work with a range of digital tools and techniques to produce effective ICT solutions in a range of contexts. They learn to reflect critically on their own and others' use of ICT and to adopt safe, secure and responsible practice.

Assessment

Unit 1 – Living in an Online World is externally assessed. It is a 1 hour thirty minute exam paper. (40%)
Unit 2: Using Digital Tools is internally assessed under controlled conditions. (60%)

Other info

Subject area	Maths	Department	Maths
HoD	Mr M Loftus	HOD email	mloftus@airedaleacademy.com
Department staff	M Loftus, S Moore, C Eastwood, D Lockett, M Arbon, M Robinson, R Taylor and B Coleman		

Year group	9	Core	Subject name	GCSE Maths
Periods/week	5	Qualification	GCSE Maths	
Weblink	http://www.aqa.org.uk/subjects/mathematics/gcse			

Overview

In Y9 Mathematics pupils begin to study topics for their GCSE. This allows them time to make the transition from their KS3 work and lays the foundations for an outstanding GCSE result in Y11. Their work is assessed using grades rather than levels and they learn to tackle GCSE style questions. Topics are structured as in KS3 to aid transition but using GCSE content and assessments.

We study the Edexcel Linear Mathematics A (1MA0) GCSE course which means that pupils will sit an examination at the end of year 11 comprising of 2 papers: one Non-calculator paper and one Calculator paper. There is no coursework for Mathematics GCSE.

Pupils are set. Nominally pupils in sets 1 and 2 sit the Higher paper and those in sets 3 onwards sit the Foundation paper. Grades awarded are as follows:

- Higher - A*, A, B, C, D, E, U.
- Foundation C, D, E, F, G, U.

Units studied

Pupils learn about the Mathematics of Number; Shape, Space and Measure; Algebra; Data Handling; and Functional Skills (the ability to use mathematical skills in real life situations).

Pupils also acquire the following key skills along the way:

- Interpreting (deciding what the question is asking)
- Representing (defining the problem)
- Analysing (selecting the data and method required to produce a correct solution)
- Evaluating (doing the actual calculations)
- Communicating (describing the solution and method used to others)
- Reflecting (asking whether the answer makes sense, is it the only method and comparing the advantages, disadvantages and efficiency of methods where more than one exists)

Topics Studied:

Term 1:

Integers, powers and roots

Sequences, functions and graphs

Geometrical reasoning: lines, angles and shapes

Construction and loci

Probability

Ratio and proportion

Equations, formulae, identities and expressions

Measures and mensuration; area

LEARNING REVIEW 1

Subject area	Maths	Department	Maths
HoD	Mr M Loftus	HOD email	mloftus@airedaleacademy.com
Department staff	M Loftus, S Moore, C Eastwood, D Lockett, M Arbon, M Robinson, R Taylor and B Coleman		

Term 2:

Sequences, functions and graphs II

Place value, calculations and checking

Transformations and coordinates

Processing and representing data; Interpreting and discussing results

Equations, formulae, identities and expressions

LEARNING REVIEW 2

Term 3:

Fractions, decimals and percentages

Measures and mensuration

Equations, formulae, identities and expressions II

Calculations and checking

Geometrical reasoning: coordinates and construction

Measures and mensuration; volume

Statistical enquiry

LEARNING REVIEW 3 (End of Year Exam)

Assessment

Pupils study the above topics over the course of the year.

Each topic is assessed with a short mini-test to track progress.

Each term's progress is measured in an End of Term Review using actual GCSE questions for a realistic measure of achievement.

Other info

If you want to know more please contact Mr Loftus or your son/daughter's class teacher at school.

Subject area	Music	Department	Music
HoD	G Woodfine	HOD email	gwoodfine@airedaleacademy.com
Department staff	G Woodfine		

Year group	9	Option		Subject name	GCSE Music
Periods/week	2	Qualification	AQA GCSE Music		
Weblink	http://web.aqa.org.uk/qual/newgcse/art_dan_dra_mus/new/music_overview2.php				

Overview

In GCSE Music, students build on their knowledge, understanding and skills from KS3. They attend weekly instrumental lessons to prepare them for their solo and ensemble performances throughout the course. The key areas of study include rhythm and metre, harmony and tonality, texture and melody, timbre and dynamics, structure and form which will be explored through western classical music, popular music of the 20th and 21st centuries and world music. Students will demonstrate their knowledge of these in the listening exam and composition units of coursework.

Units studied

Unit 1: Listening and appraising
Unit 2: Composing and appraising
Unit 3: Performing music
Unit 4: Composing music

Assessment

Unit 1: 1 hour listening examination
Unit 2: Composition and appraisal
Unit 3: Solo performance and ensemble performance
Unit 4: Composition (25 hours to complete under supervision)

Other info

Students would benefit from taking Graded examinations on their music instrument/voice.

Subject area	PE	Department	PE
HoD	Mrs K Ball/Mr R Singleton	HOD email	kball@airedaleacademy.com/rsingleton@
Department staff	K Ball, R Singleton, E Ward and A Dean		

Year group	9	Option		Subject name	BTEC Sport
Periods/week	2	Qualification	BTEC First in Sport		
Weblink	http://www.edexcel.com/quals/firsts10/sport/Pages/default.aspx				

Overview

The BTEC First In Sport qualification is very demanding with an average of 70% of the teaching time being spent in the classroom. Throughout the course students will develop both their theoretical and practical understanding of sport as well as enhancing their independent learning skills, time management, group work skills, communication, ICT skills and literacy skills.

Students will have the opportunity to take part in a range of sporting activities which are closely related to the assignments that they will be completing. Students will be expected to adapt to different roles within the sporting industry such as coaches, sports leaders, analysts and much more. The variety of activities covered with the course will enable students to gain a clear insight into possible future education and employment pathways available to them in the sports industry.

Units studied

- **Practical Sports Performance:** Students will analyse the tactics, skills, rules and techniques used in a selected team and individual sport. They will be expected to take part in practical sessions linked to their assignment.
- **Training for Personal Fitness:** Students will produce an individual training programme which is linked to their specific requirements. They will be expected to design and take part in practical sessions linked to their PEP.
- **Leading Sports Activities:** Students will develop their knowledge and understanding of how to lead sports sessions and organise a sporting event. They will visit local primary schools to deliver skills sessions to groups of students and take ownership of running a sports tournament.
- **Fitness for Sport and Exercise:** Students will learn about a range of fitness tests used to measure an athlete's sporting prowess. They will be expected to take part and conduct these tests alongside their classmates.
- **Nutrition in Sport:** Students will learn how to prepare for sporting competitions and events. They will understand how a balanced and healthy diet can affect sports performance.

Assessment

The BTEC First In Sport Diploma is 75% internal coursework. Students will be given a Pass, Merit or Distinction grade for each assignment. 25% of the course is assessed through an external exam. Students will then be given an overall unit grade when each task has been completed. Students will be given an overall grade based on the portfolio of units they submit at the end of year 9.

Other info

A good understanding of the rules, tactics and techniques of a variety of sports is desirable. Students will have the opportunity to develop their leadership skills by assisting Airedale Academy sporting events and assisting in local primary schools.

Subject area	PE	Department	PE
HoD	Mrs K Ball/Mr R Singleton	HOD email	kball@airedaleacademy.com/rsingleton@
Department staff	K Ball, R Singleton, E Ward and A Dean		

Year group	9	Core	Core	Subject name	PE
Periods/week	2	Qualification	None		
Weblink	None				

Overview

The Physical Education curriculum at Airedale Academy enables all pupils to enjoy and succeed in many kinds of physical activity. Students will develop a wide range of skills and the ability to use tactics, strategies and compositional ideas to perform successfully. They will develop the confidence to take part in different physical activities and learn about the value of healthy, active lifestyles. Physical Education helps pupils develop personally and socially. Students will work as individuals, in groups and in teams, developing concepts of fairness and of personal and social responsibility.

Units studied

In Year 9 students are encouraged to take on different roles and responsibilities, including leadership, coaching and officiating. Through the range of experiences that PE offers, they learn how to be effective in competitive, creative and challenging situations. Lessons are taught through game orientated activities to develop students' tactical ability and knowledge of rules.

Sporting areas including;

- Invasion games - football, rugby, netball, basketball
- Net and wall activities – badminton, short tennis,
- Striking and fielding sports – rounder's, baseball, table tennis, cricket
- Maximum performance activities – athletics,
- Exploring ideas through creativity – trampolining, gymnastics, leadership, orienteering
- Health and Fitness – cross country, weights, fitness suite, health and fitness

Assessment

Assessment will take place after each sporting activity and will be assessed according to National Curriculum levels (levels 3, 4, 5, 6, 7). Levels of progress will be measured from sport to sport and across Key Stage Three.

Other info

Extra-curricular activities provide great opportunities for students to participate in an Airedale Academy team. A successful PE inter-house system takes place throughout the year. Students have the opportunity to represent their house and compete in different sporting activities. Enrichment opportunities such as educational trips, Inter-School sporting events and coaching courses will be offered.

Airedale Academy is proud to have designed a comfortable and smart PE kit which students wear with pride.

Subject area	Science	Department	Science
HoD	Mr S Miller	HOD email	smiller@airedaleacademy.com
Department staff	S Miller, M Bains, M Sanderson, A Tomlinson, D Gardner, J Halman, D World and J Weatherill,		

Year group	9	Core	Subject name	GCSE Biology
Periods/week	5	Qualification	GCSE Biology	
Weblink	N/A			

Overview

GCSE Biology is designed to be taken alongside GCSE Chemistry and GCSE Physics. The GCSE is split into two parts. The first part is taught in Y9 and the second part is taught in Y10. Y11 is a consolidation year.

Units studied

The GCSE is split into 7 topics. In Year 9, students will study topics 1-4 and in Year 10, students will study topics 5-7:

1: Cell biology

In this topic, students will learn about: eukaryotes and prokaryotes, animal and plants cells, cell specialisation, cell differentiation, microscopy, culturing microorganisms, chromosomes, mitosis and the cell cycle, stem cells, diffusion, osmosis and active transport.

2: Organisation

In this topic, students will learn about: organisational hierarchy, the human digestive system, the heart and blood vessels, blood, coronary heart disease: a non-communicable disease, health issues, the effect of lifestyle on some non-communicable diseases, cancer, plant tissues and organs and plant organ systems.

3: Infection and response

In this topic, students will learn about: communicable diseases, viral diseases, bacterial diseases, fungal diseases, protist diseases, human defence systems, vaccinations, antibiotics and painkillers, discovery and development of drugs, producing monoclonal antibodies, uses of monoclonal antibodies, detection and identification of plant diseases.

4: Bioenergetics

In this topic, students will learn about: the photosynthetic reaction, rates of photosynthesis, uses of glucose from photosynthesis, aerobic and anaerobic respiration, response to exercise and metabolism.

5: Homeostasis and response

In this topic, students will learn about: the structure and function of the nervous system, the brain, the eye, control of body temperature, the human endocrine system, controlling blood glucose concentration, maintaining water and nitrogen balance in the body, hormones in human reproduction, contraception, the uses of hormones to treat infertility, negative feedback, control and coordination and uses of plant hormones.

6: Inheritance, variation and evolution

In this topic, students will learn about: sexual and asexual reproduction, meiosis, advantages and disadvantages of sexual and asexual reproduction, DNA and the genome, DNA structure, genetic inheritance, inherited disorders, sex determination, variation, evolution, selective breeding, genetic engineering, cloning, the theory of evolution, speciation, the understanding of genetics, evidence of evolution, fossils, extinction, resistant bacteria and classification.

Subject area	Science	Department	Science
HoD	Mr S Miller	HOD email	smiller@airedaleacademy.com
Department staff	S Miller, M Bains, M Sanderson, A Tomlinson, D Gardner, J Halman, D World and J Weatherill,		

7: Ecology

In this topic, students will learn about: communities, abiotic factors, biotic factors, adaptations, levels of organisation, how material are cycled, decomposition, impact of environmental change, biodiversity, waste management, land use, deforestation, global warming, maintaining biodiversity, trophic levels, pyramids of biomass, transfer of biomass, factors affecting food security, farming techniques, sustainable fisheries role of biotechnology.

Assessment

2 external papers in June of Y11. (1hr, 45 minutes each):

Paper 1: Topics 1–4

Paper 2: Topics 5–7

Students are also required to carry out 8 ‘required practicals’, which will be examined in the two external tests.

Other info

The department holds regular revision sessions after school. Ask your teacher for more information. A range of revision guides are on sale. See Mr Miller for more details.

Subject area	Science	Department	Science
HoD	Mr S Miller	HOD email	smiller@airedaleacademy.com
Department staff	S Miller, M Bains, M Sanderson, A Tomlinson, D Gardner, J Halman, D World and J Weatherill,		

Year group	9	Core	Subject name	GCSE Chemistry
Periods/week	5	Qualification	GCSE Chemistry	
Weblink	N/A			

Overview

GCSE Chemistry is designed to be taken alongside GCSE Physics and GCSE Biology. The GCSE is split into two parts. The first part is taught in Y9 and the second part is taught in Y10. Y11 is a consolidation year.

Units studied

The GCSE is split into 10 topics. In Year 9, students will study topics 1-5 and in Year 10, students will study topics 6-10:

1: Atomic structure and the periodic table

In this topic, students will learn about: atoms, elements and compounds, mixtures, scientific models of the atom, relative electrical charges of subatomic particles, size and mass of atoms, electronic structure, the periodic table, development of the periodic table, metals and non-metals, group 0, group 1, group 7 elements and typical properties of transition metals,

2: Bonding, structure and the properties of matter

In this topic, students will learn about: chemical bonds, ionic bonding, ionic compounds, covalent bonding, metallic bonding, the three states of matter, the state symbols, properties of ionic compounds, polymers, giant covalent structures, properties of metals and alloys, metals as conductors, diamond, graphite, grapheme and fullerenes, size of nanoparticles and uses of nanoparticles.

3: Quantitative chemistry

In this topic, students will learn about: conservation of mass and balanced chemical equations, relative formula mass, mass changes when a reactant or product is a gas, moles, amounts of substances in equations, uses moles to balance equations, limiting reactants, concentration of solutions, percentage yield, atom economy, using concentration of solutions in mol/dm³ and use of amount of substance in relation to volumes of gases.

4: Chemical changes

In this topic, students will learn about: metal oxides, the reactivity series, extraction of metals and reduction, oxidation and reduction in terms of electrons, reactions of acids with metals, neutralisation of acids and salt production, soluble salts, the pH scale and neutralisation, strong and weak acids, the process of electrolysis, electrolysis of molten ionic compounds, using electrolysis to extract metals, electrolysis of aqueous solutions and representation of reactions at electrodes as half equations.

5: Energy changes

In this topic, students will learn about: energy transfer during exothermic and endothermic reactions, reaction profiles, the energy change of reactions, cells and batteries and fuel cells.

6: The rate and extent of chemical change

In this topic, students will learn about: calculating rates of reactions, factors which affect the rates of chemical reactions, collision theory and activation energy, factors that increase the rate of reaction, catalysts, reversible reactions, energy changes and reversible reactions, equilibrium, and the effect of

Subject area	Science	Department	Science
HoD	Mr S Miller	HOD email	smiller@airedaleacademy.com
Department staff	S Miller, M Bains, M Sanderson, A Tomlinson, D Gardner, J Halman, D World and J Weatherill,		

changing different conditions.

7: Organic chemistry

In this topic, students will learn about: crude oil, hydrocarbons and alkanes, fractional distillation and petrochemicals, properties of hydrocarbons, cracking and alkenes, structure and formulae of alkene, reactions of alkenes, alcohols, carboxylic acids, addition polymerisation, condensation polymerisation, amino acids, DNA and other naturally occurring polymers.

8: Chemical analysis

In this topic students will learn about: pure substances, formulations, chromatography, tests for hydrogen, oxygen, carbon dioxide and chlorine, flame tests, metal hydroxides, carbonates, halides, sulfates, instrumental methods and flame emission spectroscopy.

9: Chemistry of the atmosphere

In this topic, students will learn about: the proportions of different gases in the atmosphere, the Earth's early atmosphere, how oxygen increased, how carbon dioxide decreased, human activities which contribute to an increase in greenhouse gases in the atmosphere, global climate change, the carbon footprint and its reduction, atmosphere pollutants from fuels and properties and effects of atmospheric pollutants.

10: Using resources

In this topic, students will learn about: using the Earth's resources and sustainable development, portable water, waste water treatment, alternative methods of extracting metals, life cycle assessment, ways of reducing the use of resources, corrosion and its prevention, alloys as useful materials, ceramics polymers and composites, the Haber process and production and uses of NPK fertilisers.

Assessment

2 external papers in June of Y11. (1hr, 45 minutes each):

Paper 1: Topics 1–5

Paper 2: Topics 6–10

Students are also required to carry out 8 'required practicals', which will be examined in the two external tests.

Other info

The department holds regular revision sessions after school. Ask your teacher for more information. A range of revision guides are on sale. See Mr Miller for more details.

Subject area	Science	Department	Science
HoD	Mr S Miller	HOD email	smiller@airedaleacademy.com
Department staff	S Miller, M Bains, M Sanderson, A Tomlinson, D Gardner, J Halman, D World and J Weatherill,		

Year group	9	Core	Subject name	GCSE Combined Science (Trilogy)
Periods/week	4	Qualification	GCSE Combined Science (Trilogy)	
Weblink	N/A			

Overview

Students will gain 2 GCSEs through this route.

In Year 9, students will learn the topics for paper 1 of Biology, Chemistry and Physics.

In Year 10, students will learn the topics for paper 2 of Biology, Chemistry and Physics.

Year 11 will be a consolidation year in preparation for the 6 exams in June.

Units studied

Biology Topics

1: Cell biology

In this topic, students will learn about: eukaryotes and prokaryotes, animal and plants cells, cell specialisation, cell differentiation, microscopy, chromosomes, mitosis and the cell cycle, stem cells, diffusion, osmosis and active transport.

2: Organisation

In this topic, students will learn about: organisational hierarchy, the human digestive system, the heart and blood vessels, blood, coronary heart disease: a non-communicable disease, health issues, the effect of lifestyle on some non-communicable diseases, cancer, plant tissues and organs and plant organ systems.

3: Infection and response

In this topic, students will learn about: communicable diseases, viral diseases, bacterial diseases, fungal diseases, protist diseases, human defence systems, vaccinations, antibiotics and painkillers, discovery and development of drugs.

4: Bioenergetics

In this topic, students will learn about: the photosynthetic reaction, rates of photosynthesis, uses of glucose from photosynthesis, aerobic and anaerobic respiration, response to exercise and metabolism.

5: Homeostasis and response

In this topic, students will learn about: the structure and function of the nervous system, the human endocrine system, controlling blood glucose concentration, maintaining water and nitrogen balance in the body, hormones in human reproduction and contraception

6: Inheritance, variation and evolution

In this topic, students will learn about: sexual and asexual reproduction, meiosis, DNA and the genome, genetic inheritance, inherited disorders, sex determination, variation, evolution, selective breeding, genetic engineering, evidence of evolution, fossils, extinction, resistant bacteria and classification.

7: Ecology

Subject area	Science	Department	Science
HoD	Mr S Miller	HOD email	smiller@airedaleacademy.com
Department staff	S Miller, M Bains, M Sanderson, A Tomlinson, D Gardner, J Halman, D World and J Weatherill,		

In this topic, students will learn about: communities, abiotic factors, biotic factors, adaptations, levels of organisation, how material are cycled, biodiversity, waste management, land use, deforestation, global warming and maintaining biodiversity

Chemistry Topics

8: Atomic structure and the periodic table

In this topic, students will learn about: atoms, elements and compounds, mixtures, scientific models of the atom, relative electrical charges of subatomic particles, size and mass of atoms, electronic structure, the periodic table, development of the periodic table, metals and non-metals, group 0, group 1 and group 7 elements.

9: Bonding, structure and the properties of matter

In this topic, students will learn about: chemical bonds, ionic bonding, ionic compounds, covalent bonding, metallic bonding, the three states of matter, the state symbols, properties of ionic compounds, polymers, giant covalent structures, properties of metals and alloys, metals as conductors, diamond, graphite, grapheme and fullerenes.

10: Quantitative chemistry

In this topic, students will learn about: conservation of mass and balanced chemical equations, relative formula mass, mass changes when a reactant or product is a gas, moles, amounts of substances in equations, uses moles to balance equations, limiting reactants and concentration of solutions.

11: Chemical changes

In this topic, students will learn about: metal oxides, the reactivity series, extraction of metals and reduction, oxidation and reduction in terms of electrons, reactions of acids with metals, neutralisation of acids and salt production, soluble salts, the pH scale and neutralisation, strong and weak acids, the process of electrolysis, electrolysis of molten ionic compounds, using electrolysis to extract metals, electrolysis of aqueous solutions and representation of reactions at electrodes as half equations.

12: Energy changes

In this topic, students will learn about: energy transfer during exothermic and endothermic reactions, reaction profiles and the energy change of reactions.

13: The rate and extent of chemical change

In this topic, students will learn about: calculating rates of reactions, factors which affect the rates of chemical reactions, collision theory and activation energy, factors that increase the rate of reaction, catalysts, reversible reactions, energy changes and reversible reactions, equilibrium, and the effect of changing different conditions.

14: Organic chemistry

In this topic, students will learn about: crude oil, hydrocarbons and alkanes, fractional distillation and petrochemicals, properties of hydrocarbons, cracking and alkenes.

15: Chemical analysis

In this topic students will learn about: pure substances, formulations, chromatography, tests for hydrogen, oxygen, carbon dioxide and chlorine.

16: Chemistry of the atmosphere

Subject area	Science	Department	Science
HoD	Mr S Miller	HOD email	smiller@airedaleacademy.com
Department staff	S Miller, M Bains, M Sanderson, A Tomlinson, D Gardner, J Halman, D World and J Weatherill,		

In this topic, students will learn about: the proportions of different gases in the atmosphere, the Earth's early atmosphere, how oxygen increased, how carbon dioxide decreased, human activities which contribute to an increase in greenhouse gases in the atmosphere, global climate change, the carbon footprint and its reduction, atmosphere pollutants from fuels and properties and effects of atmospheric pollutants.

17: Using resources

In this topic, students will learn about: using the Earth's resources and sustainable development, portable water, waste water treatment, alternative methods of extracting metals, life cycle assessment and ways of reducing the use of resources.

Physics Topics

18: Forces

In this topic, students will learn about: scalar and vector quantities, contact and non-contact forces, gravity, resultant forces, work done and energy transfer, forces and elasticity, describing motion along a line, forces, accelerations and Newton's Law of motion, forces and braking.

19: Energy

In this topic, students will learn about: energy stores and systems, changes in energy, energy changes in systems, work, power, energy transfers in a system, efficiency and national and global energy resources.

20: Waves

In this topic, students will learn about: transverse and longitudinal waves, properties of waves, type of electromagnetic waves, uses and applications of electromagnetic waves,

21: Electricity

In this topic, students will learn about: standard circuit diagram symbols, electrical charge and current, current, resistance and potential difference, resistors, direct and alternating current, mains electricity, powder, energy transfers in everyday appliances and the National Grid

22: Magnetism and Electromagnetism

In this topic, students will learn about: poles of a magnet, magnetic fields, electromagnetism, Fleming's left-hand rule and electric motors.

23: Particle model of matter

In this topic, students will learn about: density of materials, changes of state, internal energy, temperature changes in a system and specific heat capacity, changes of heat and specific latent heat and particle motion in gases

24: Atomic structure

In this topic, students will learn about: the structure of the atom, mass number, atomic number and isotopes, the development of the model of the atom, radioactive decay and nuclear decay, nuclear equations, half-lives and the random nature of radioactive decay and radioactive contamination.

Assessment

6 assessments in Year 11, all 1hr 15 minutes each:

Biology Paper 1: Topics 1-4

Biology Paper 2: Topics 5-7

Subject area	Science	Department	Science
HoD	Mr S Miller	HOD email	smiller@airedaleacademy.com
Department staff	S Miller, M Bains, M Sanderson, A Tomlinson, D Gardner, J Halman, D World and J Weatherill,		

Chemistry Paper 1: Topics 8-12
Chemistry Paper 2: Topics 13-17
Physics Paper 1: Topics 19, 21, 23 and 24
Physics Paper 2: Topics 18, 20 and 22

Students are also required to carry out 16 'required practicals', which will be examined in the two external tests.

Other info

The department holds regular revision sessions after school. Ask your teacher for more information. A range of revision guides are on sale. See Mr Miller for more details.

Subject area	Science	Department	Science
HoD	Mr S Miller	HOD email	smiller@airedaleacademy.com
Department staff	S Miller, M Bains, M Sanderson, A Tomlinson, D Gardner, J Halman, D World and J Weatherill,		

Year group	9	Core	Subject name	GCSE Physics
Periods/week	5	Qualification	GCSE Physics	
Weblink	N/A			

Overview

GCSE Physics is designed to be taken alongside GCSE Chemistry and GCSE Biology. The GCSE is split into two parts. The first part is taught in Y9 and the second part is taught in Y10. Y11 is a consolidation year.

Units studied

The GCSE is split into 8 topics. In Year 9, students will study topics 2, 4, 6 and 7 and in Year 10, students will study topics 1, 3, 5 and 8:

1: Forces

In this topic, students will learn about: scalar and vector quantities, contact and non-contact forces, gravity, resultant forces, work done and energy transfer, forces and elasticity, moments, levers and gears, pressure in a fluid, atmospheric pressure, describing motion along a line, forces, accelerations and Newton's Law of motion, forces and braking, momentum, conservation of momentum and changes in moment.

2: Energy

In this topic, students will learn about: energy stores and systems, changes in energy, energy changes in systems, work, power, energy transfers in a system, efficiency and national and global energy resources.

3: Waves

In this topic, students will learn about: transverse and longitudinal waves, properties of waves, reflection of waves sound waves, waves for detection and exploration, type of electromagnetic waves, uses and applications of electromagnetic waves, lenses, visible light, emission and absorption of infrared radiation, perfect black bodies and radiation.

4: Electricity

In this topic, students will learn about: standard circuit diagram symbols, electrical charge and current, current, resistance and potential difference, resistors, direct and alternating current, mains electricity, insulation, fuses and circuit breakers, powder, energy transfers in everyday appliances, the National Grid, static charge and electric fields.

5: Magnetism and Electromagnetism

In this topic, students will learn about: poles of a magnet, magnetic fields, electromagnetism, Fleming's left-hand rule, electric motors, loudspeakers, induced potential, uses of the generator effect, microphones, transformers

6: Particle model of matter

In this topic, students will learn about: density of materials, changes of state, internal energy, temperature changes in a system and specific heat capacity, changes of heat and specific latent heat, particle motion in gases, pressure in gases and increasing the pressure of a gas.

7: Atomic structure

Subject area	Science	Department	Science
HoD	Mr S Miller	HOD email	smiller@airedaleacademy.com
Department staff	S Miller, M Bains, M Sanderson, A Tomlinson, D Gardner, J Halman, D World and J Weatherill,		

In this topic, students will learn about: the structure of the atom, mass number, atomic number and isotopes, the development of the model of the atom, radioactive decay and nuclear decay, nuclear equations, half-lives and the random nature of radioactive decay, radioactive contamination, background radiation, different half-lives of radioactive isotopes, uses of nuclear radiation, nuclear fission and nuclear fusion

8: Space physics

In this topic, students will learn about: our solar system, the life cycle of a star, orbital motion, natural and artificial satellites and red-shift.

Assessment

2 external papers in June of Y11. (1hr, 45 minutes each):

Paper 1: Topics 2, 4, 6 and 7

Paper 2: Topics 1, 3, 5 and 8

Students are also required to carry out 8 'required practicals', which will be examined in the two external tests.

Other info

The department holds regular revision sessions after school. Ask your teacher for more information.

A range of revision guides are on sale. See Mr Miller for more details.

Year group	9	Core	Subject name	PSHCRE
Periods/week	Form time	Qualification	None	
Weblink	None			

Overview

Personal Development offers the opportunity for students to develop personal skills, prepare for life after Airedale Academy, explore different ways of working and learning and develop their understanding of how others think and what they believe, including developing an understanding of British Values.

Units studied

Throughout the year students will look at current events, financial awareness, Democracy and voting, rights and responsibilities, relationships, different cultures, different beliefs health and well being and personal safety.

Assessment

Pupils will be assessed on their contribution and understanding of their different issues and their ability to express their views verbally and in writing

Other info