

Islwyn High School AoLE Visions and Learning Activities

Expressive Arts

The Expressive Arts enable learners to recognise and represent feelings and emotions, both their own and those of others that shape their sense of personal, social and cultural identity. The dynamic and inclusive nature of the Expressive Arts develops learners' motivation and self-confidence through their artistic, creative and performance skills. They will be offered opportunities to be creative, expressive and challenged in different ways. Moreover, they will develop important skills, both those specific to the expressive arts and those which are transferable that will foster the pipeline of talent to sustain and develop the diverse opportunities within both the creative industries, and wider world of work.

Year 7

Drama

- Creating and editing a whole class pantomime - Drama
- Creating a film about "Max's Life" - Drama
- Develop script writing skills - Drama

Music

- Learn about the musical elements and notation - Music
- Learn how to perform with a range of musical instruments, both individually and ensemble - Music
- Develop listening and appraising skills within the western classical tradition and in world music - Music

Art

- Experience a range of art materials, processes and techniques - Art
- Improve their observational and imaginative drawing skills in the development of their own work - Art
- Study the work of a range of artists and artwork from other cultures - Art

Year 8

Drama

- Exploring the historical and cultural values of the 1970s and performing the play "Our day Out" - Drama
- Explore the ideology of fame - positive and negative - Drama
- Develop and record a piece of Drama that explores a social issue that is important to their local community - Drama

Music

- Study Welsh culture and perform the music of Welsh performers in ensembles - Music
- Work in teams to consolidate performing skills and have the opportunity to appraise their work - Music

Art

- Build and extend their skills of observational drawing, leading to higher quality imaginative work - Art
- Explore a range of art materials and processes to achieve their creative outcomes - Art
- To develop their understanding of the work and ideas of other

Year 9

Drama

- Explore social and class structure of the 1950s and perform scenes from Blood Brothers - Drama
- Explore the various roles within the theatre, such as stage management, lighting and sound, costume and make-up - Drama
- Workshops on influential Drama plays and theatre companies that shaped the world today - Drama

Music

- Explore digital music and composition, using a range of software - Music
- Pop culture and musical theatre - Music
- Appraising music in the film industry.

Art

- Develop a greater understanding of how Art affects culture, and is affected by it, through the study of Pop Art - Art
- Explore a wide variety of art media, techniques and processes, developing and extending their skills in both 2 and 3

	artists - Art	Dimensions - Art <ul style="list-style-type: none"> ● Refine their skills to create a range of artistic outcomes - Art
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Health & Wellbeing		
<p>In Health and Wellbeing, we will strive to create healthy, resilient individuals, ready to lead fulfilling lives and embrace challenges.</p> <p>Pupils will invest in their own physical, social and emotional wellbeing to ensure they are prepared and equipped for life's opportunities.</p>		
<p>PSE</p> <ul style="list-style-type: none"> ● Overview of Curriculum <p>PE</p> <ul style="list-style-type: none"> ● Overview of curriculum 	<p>PSE</p> <ul style="list-style-type: none"> ● Overview of Curriculum <p>PE</p> <ul style="list-style-type: none"> ● Overview of curriculum 	<p>PSE</p> <ul style="list-style-type: none"> ● Overview of Curriculum <p>PE</p> <ul style="list-style-type: none"> ● Overview of curriculum

Humanities		
<p>Our vision is to cultivate global citizens and widen the horizons of our students. We aim to enable them to value and understand peoples' diversity, past and culture and to increase their awareness and understanding of their own locality and the world around them. Our learners will be equipped with the skills to make independent judgements and become lifelong learners.</p>		
<p>Year 7</p> <p>Humanities is studied through a series of themes as outlined below:</p> <p>➤ Identity</p> <p>History Pupils explore the history of Oakdale and Blackwood and investigate how our past has affected our present, with particular</p>	<p>Year 8</p> <p>Humanities is studied through a series of themes as outlined below:</p> <p>➤ Change</p> <p>History Pupils study religious tolerance in modern Britain and use this knowledge to compare and contrast with religious tolerance during</p>	<p>Year 9</p> <p>History</p> <p>Titanic Pupils move into their study of modern Britain. This first topic allows pupils to delve into the British class system and the impacts it had on our society. The Titanic acts</p>

reference to the Chartist movement, the coal industry and the Model Village. Pupils are encouraged to investigate their family history and produce a family tree. They will also create a time capsule to demonstrate their knowledge of our local history.

RVE

Introduction to Humanities-'what is Humanities?'
What is RVE?
'Why study RVE?'/ 'What is religion?' - (how does religion affect people's lives?)
How do we express identity? interest.-Banksy examples
Create identity badge-personal reflection
How do religious people can express their faith?
Research task - ways religious believers express faith.
How do religious believers show their commitment to faith? Literacy task - Individual presentation.
Are There Different Ways of Seeing?
What is philosophy? - examples of Aristotle and Plato Poem literacy task -summarise and synthesise.

Geography

Introduction to geography - Introduction to different strands of geography, including physical, human and environmental geography.
Introduction to map skills., including map symbols, grid references, scale and direction.
Much of this will be done using maps of the local

the Tudor era. Pupils investigate the major causes of the Spanish Armada and how this war cemented Britain's position as an emerging superpower. Pupils build on their source analysis and interpretation skills throughout this topic.

RVE

Is There A God? What do People Believe About God? Are Many People In The World Religious? What Is an Ultimate Question? What Is Spirituality? What is Humanism? How Religious Is Wales? Is Religion of Value in 21st Century?

Geography

Population - Pupils will gain an understanding of variations of birth and death rates and how these factors lead to variations in population structures within both the UK and wider world. This will allow learners to understand how population and demographics change and why migration occurs at various locations around the world.

➤ Persecution

History

Pupils investigate tolerance towards women in modern society and then use this knowledge to compare and contrast with the treatment of women in Stuart Britain with particular reference to witchcraft. Pupils study the reasons why people believed in witches during the seventeenth century and investigate how they were treated with particular reference to Mathew Hopkins, the Witchfinder General. Pupils draw on

as a microcosm of the class structure within the UK and how society functioned. Pupils will analyse the causes, events and consequences of the sinking of the famous ship.

World War One

Pupils study the causes of WW1 and investigate the initial reactions to the war in Great Britain and Wales. Pupils will re-enacting trench warfare before considering questions that reflect on its purpose and problems it caused. Pupils study trench warfare in detail and consider the impact of the war on the local community. Pupils leave messages of remembrance for soldiers who have fallen from Oakdale and Blackwood.

World War Two

Pupils investigate which event had the most significant impact on the outcome of the war. Pupils will study Blitzkrieg, Dunkirk, Battle of Britain, Operation Barbarossa, D-Day and bombings of Hiroshima and Nagasaki.

Days that shook the world

Pupils investigate a succession of events from modern history that have shaped the world we live in today e.g 9/11, JFK assassination, MLK speech, Hiroshima, Holocaust. Pupils place the events and their consequences on a ripple diagram to explain the local impact, national impact and then world wide impact. Pupils reach decisions as to which day has affected our society the most.

Holocaust

We begin with the Declaration of Human Rights and what it stands for. We analyse our

area.

➤ **Power**

History

Pupils investigate how power structures in Wales and England shifted with the Battle of Hastings. They investigate the causes, events and consequences of the battle. Pupils are asked to produce their own Saxon/Norman weapons as part of a blended learning activity in order to participate in a battle reenactment. Pupils then study the historical evidence linked to the battle and decide whether this evidence can be trusted.

RVE

What Are Human Rights?
How Should We Treat Others?
Compare 'Golden Rule' of major world religions.
What Is The Caste System?
Who Is Mahatma Ghandi?
Who Is Dalai Lama?
What Are Christian Views On Prejudice and Discrimination?
What Do Religions Teach About The Use Of Money?
What Is Sewa and Langar? (sikhism)

Geography

Wales and the UK - Introduction to the geography of Wales and the UK.
Pupils to develop an understanding of Wales place within the UK and wider world.
This leads onto looking at Population, employment and physical factors including

their chronology and causation skills throughout this topic.

RVE

What do Jewish people believe?
Who was Abraham?
Why is a Bar Mitzvah important?
Where do Jewish people worship?
What is Shabbat?
What was Moses' role in Exodus?
Why is Passover important to Jewish People?
What is anti-semitism?
What was the Holocaust?
What were the Nuremberg Laws?
What happened in the Ghettos and Camps?
What was Kindertransport?
What do some survivors say about their experience?
Who was Anne Frank?

➤ **Discrimination**

History

Pupils look into the recent 'Black Lives Matter' protests and its origins. We then delve into the topic of the Atlantic slave trade, studying its origins, events and consequences. Pupils will analyse a number of historical sources in order to reach judgements about the period being studied.

RVE

Why does prejudice exist?
What is racism?
What was America like at the time of MLK?
What did MLK do and why?
Who is MLK?
What did MLK do and why?
What is a Milestone?
What is Christening?
What happens at a Hindu

rights as individuals in the modern world and then delve into the origins of the declaration. Pupils study the rise of Hitler and the Nazis and the systematic spread of hatred of the Jewish people. Pupils carry out an enquiry to decide who was most to blame for the Holocaust.

RVE

➤ **Islam**

What is islamophobia?
What is the nature of Allah?
Who was Muhammad?
What are the Five pillars of islam?
How do Muslims pray?
What is Halal and Haram?
What are Muslim teachings about marriage?

➤ **Buddhism**

What are Buddhist beliefs?
What are the Four Noble Truths?
What is the Eightfold Path?
What are the Five Precepts?
What do Buddhists believe about life after death?
What is Buddhist meditation?

➤ **Religion & Science**

What is the value of human life?
How should we treat/use animals?
What is cloning?
What are the moral issues of religion and science?

➤ **Religion & the media**

How is God portrayed in the media?
How is religion in the news portrayed?
How is religion and spirituality expressed

climate patterns of the UK and Wales.

➤ **Citizenship, behaviour and action**

History

Pupils are introduced to the Declaration of Human Rights and investigate the rights afforded to us in modern society. They then use their knowledge to compare and contrast tolerance in mediaeval times with particular reference to women, religion, nationality and race. Pupils reach a final decision as to whether the Mediaeval period was tolerant.

RVE

What Does Our Local Environment Look Like?
What is Mindfulness?
What is Awe?
What Is The Design Argument?
What Do Christians Believe About Creation?
How do Hindus believe the world was created?
What Are The Scientific Theories About The Universe?

Geography

Global Stewardship - Introduction to global issues such as climate change and associated issues such as deforestation and glacial retreat. Learners will develop an understanding of the importance of greenhouse gases and how these are changing as a results of human actions. They will also look at the nature of the

wedding?
What happens at a Christian funeral?
What happens at a Hindu funeral?
What are Christian beliefs about afterlife?
What are Hindu beliefs about afterlife?
What is bias and objectivity?

Geography

USA - Introduction to the geography of USA. The first units focus upon the discovery of the Americas and how the USA began to develop as an independent country. Population considers the importance of migration in understanding the composition of the US population. The economic section looks at the development of the economy and introduces learners to the concept of economic sectors and links to how globalisation is shaping the world today.

➤ **Life**

History

Pupils study life in an Industrial Welsh town by conducting a murder investigation. The murder will lead them to 5 key suspects, each allowing pupils to study different areas of life in Wales during the Industrial Revolution. Pupils will learn about life in coal mines, Ironworks and what it was like to live in the worker's terraced houses. Pupils will build their enquiry skills throughout this topic.

Geography

Here there is a focus on how fragile life can be and how geographical and natural hazards can impacts both people and society. There is a

through music and art?

Geography

Physical landscapes - Pupils will develop an understanding of how factors such as erosion, transportation and deposition can create significant landforms in both a fluvial and coastal context. They will also understand how these landforms may change over time. Pupils will also understand how fluvial and coastal environments can create challenge and opportunities for humans.

➤ **Urban-rural links**

Urban-rural links - learners will develop an understanding of both the rural and urban environments and how they interact and impact upon each other. They will begin to understand how these environments are also impacted globally by concepts such as globalisation.

➤ **Natural Hazards**

Tectonic hazards - Learners will learn how to describe and explain the physical processes that operate as a result of plate tectonics. This includes understanding the composition of the earth and processes that operate in the lithosphere. Learners will explain how tectonic activities are distributed globally and explain the processes at various plate margins. They will then consider the impacts that these have on humans and societies at a variety of scales.

➤ **Weather and climate**

Weather and climate - learners will be able to describe and

tropical rainforest and understand the importance that they play in regulating climate change.

➤ **The world around us**

History

Pupils investigate the impact of the Covid pandemic on modern society and then use this to compare and contrast with the impacts of the Black Death on mediaeval society. Pupils will develop their research skills throughout this activity and use this research to compare and contrast between the mediaeval and modern periods.

RVE

How diverse is my local area?

What are the main beliefs of Christianity?

Who was Jesus?

Do miracles happen?

Was Jesus a Hero?

What Are The Major World Religions?

What are my values and what do I value most?

What are the beliefs of Hindus?

How do Hindus worship?

Where do Hindus Worship?

Geography

Geography in the news - An investigation into contemporary themes linked to the subject.

The content of these lessons will depend on contemporary issues at a particular time. Y7 will look at issues such as the Turkish earthquake in 2023, or other issues at a local and wider scale.

focus on impacts of events (Haiti earthquake) and how this generate social, economic and environmental challenges for the country and wider region.

➤ **Enquiry**

A joint enquiry between History, Geography and RVE. Pupils will complete an individual research based project drawing on the skills built in each Humanities discipline.

explain how and why the climate is changing. They will then begin to explain how climate patterns are caused globally due to air pressure systems. they will then understand how high and low pressure systems impact upon the UK how societies may be impacted as a result of the UKs variable climate.

➤ **Environmental challenges**

Environmental challenges - learners to understand the impacts their actions can have on a wider scale, by looking at the concept of food miles and carbon footprint. Learners will then develop their understanding of climate change from HT4 by considering actions that can be done to minimise or reverse some causes of climate change.

➤ **Global development**

Global development - learners to develop their understanding of the concept of HIC and LIC and strategies for global development such as free and fair trade and aid. Learners will also consider and explain the variations in development that occur within the UK.

<p>➤ Enquiry A joint enquiry between History, Geography and RVE. Pupils will complete an individual research based project drawing on the skills built in each Humanities discipline.</p>		
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<p>Languages, Literacy and Communication</p>		
<p>“In Cymraeg, we endeavour to create ethically informed citizens, who embrace bilingualism and value our culture and heritage. We will look at Wales’ current place in the wider world and what has shaped us along the way. Our aim is to create confident and ambitious learners, who take pride in our language and culture”.</p> <p>“In Modern Foreign Languages, we will endeavour to create ethically informed citizens who value, respect, understand, appreciate and celebrate the multilingual and multicultural world we live in, whilst we embrace our own culture and heritage.”</p> <p>In English, we aim to provide a rich and diverse curriculum which will ignite and develop a lifelong curiosity for, and confidence with, language, linguistics and literature. Our learners will be empowered to be literary critics, challenging what they read and see to enable them to seek truth and to be ethical, informed citizens of our world. They will be skilled and empathetic communicators, able to play full and informed roles in all aspects of society as they move forward in their lives.</p>		
<p><u>Year 7</u> English Study of a novel, When the Sky Falls, focusing on characterisation and creative writing:</p> <ul style="list-style-type: none"> ● Features of narrative writing ● Third person narrator ● Opening / closing ● Understanding key themes and ideas ● Understanding how characters can be created ● Developing response to the question: what impressions... ● Understanding of character ● Analysis and 	<p><u>Year 8</u> English Monstrous Creatures with a focus on Frankenstein and/or A Monster Calls</p> <ul style="list-style-type: none"> ● Features of narrative writing ● Dual narrators ● Understanding of key themes and ideas ● Understanding of how characters can be created in different forms ● Developing response to the question: What impressions... ● Analysis and evaluation of character ● Creating effective setting and characters 	<p><u>Year 9</u> English Study of creative and descriptive writing based on the theme of survival</p> <ul style="list-style-type: none"> ● Features of narrative writing with a focus on plot development and characterisation ● Understanding of impact of different types of narrative voice ● Using a range of literary techniques for deliberate effect ● Using a range of sentence structures for deliberate effect ● Analysis and evaluation of character and setting

<p>evaluation of a setting</p> <ul style="list-style-type: none"> • Creating effective setting and characters in own narrative writing 	<p>in own narrative writing</p> <ul style="list-style-type: none"> • Developing use of literary techniques in own creative writing 	
<p>Introduction to rhetoric and persuasive writing with a focus on animals and their relationship with human beings.</p> <ul style="list-style-type: none"> • Features of persuasive writing • Aristotle's Art of Rhetoric - ethos, logos, pathos • Use of rhetorical features for effect • Using evidence to support a point of view • Developing a sustained argument • Developing inference and deductions skills when reading non-fiction texts • Understanding of media texts • Analysis and evaluation of an opinion piece 	<p>Study of poetry with a focus on texts inspired by war and conflict, including Dulce et Decorum Est and Charge of the Lightbrigade</p> <ul style="list-style-type: none"> • Understanding of how social and historical context shapes art and literature • Developing analysis and evaluation of poetic techniques to create meaning • Exploring the range of forms poetry can take • Understanding of key themes and ideas in pre twentieth century texts • Developing ability to make links between two poems, exploring similarities and differences 	<p>Study of argumentation with a focus on crime and punishment</p> <ul style="list-style-type: none"> • Study of pre twentieth century texts • Understanding of bias in media / non-fiction texts • Inference and deduction • Analysis and evaluation of non-fiction writing • Developing a sustained and detailed argument, using research and evidence to support ideas • Use of presentational devices for effect • Consolidation of rhetorical devices • Development of academic writing style
<p>Study of Greek and Norse Myths and Legends to enable pupils to recognise, appreciate, and evaluate their significance in Western literary heritage:</p> <ul style="list-style-type: none"> • Develop understanding of historical context • Make links between texts • Explore the impact of different cultures on the English language 	<p>An exploration of some of Shakespeare's villains,culminating in the whole text study of Romeo and Juliet to enable students to evaluate who is to blame for the tragic ending.</p> <ul style="list-style-type: none"> • Features of a tragedy • Developing understanding of how characters can be created in a drama text • Understanding of how social and historical context shapes art and literature • Analysis and evaluation of key themes and ideas • Developing personal response to characters 	<p>Introduction to GCSE English Literature: Study of the novel Of Mice and Men:</p> <ul style="list-style-type: none"> • Understanding of social, historical and cultural context • Respond to texts critically and imaginatively • Select and analyse relevant textual detail to support ideas • Explore how language, structure and form contribute to a writer's presentation of ideas and themes
<p>Welsh- 'Dyma fi'</p> <ul style="list-style-type: none"> • Introduce themselves in the target language including name, age, nationality, family and 	<p>Welsh- 'Culture and heritage'</p> <ul style="list-style-type: none"> • Wales and our area. Pupils will study aspects of their area and the country as a 	<p>Welsh- 'Youth problems'</p> <ul style="list-style-type: none"> • Focusing on socialising, peer-pressure, problems of school

<ul style="list-style-type: none"> friends To be able to talk about their school life, including subjects, teachers and school experiences. This will include a planned trip to St Fagans to compare old with modern day schools. Keeping fit in the outdoors. Pupils will look at different sporting attractions across Wales. 	<p>whole.</p> <ul style="list-style-type: none"> 'Cymreictod' - Pupils will learn about their culture and heritage. Holidays in Wales and abroad. Pupils will be encouraged to talk about past, present and future holidays. 	<ul style="list-style-type: none"> Technology - Cyber bullying, advantages and disadvantages of technology World of work
<p>Spanish -</p> <ul style="list-style-type: none"> Introduce themselves in the target language including name, age, nationality, family and friends To be able to talk about their school life, including subjects, teachers and school experiences. Hobbies and interests with a particular focus on sports. (Including the Olympics/World Cup when scheduled) 	<p>Spanish -</p> <ul style="list-style-type: none"> 'Me presento' - Pupils will recap year 7 introductions. My local area -Pupils will describe their areas and incorporate a multilingual project based on the artist Rhiannon Roberts. Holidays in Wales and abroad in Spanish speaking countries. Pupils will be encouraged to talk about past, present and future holidays. 	<p>Spanish -</p> <ul style="list-style-type: none"> TV, Film, Technology - Uses of technology, advantages and disadvantages of the Internet and Social Media. Careers and future plans - Pupils will look at professions, future study and the importance and benefits of language learning Healthy living - pupils will look at food groups and health risks 'Pen pal' opportunity with Colegio Madrid

Mathematics and Numeracy.

In Mathematics and Numeracy we endeavour:

- To make all learners numerate; to empower them to be able to use mathematics in order to flourish in their everyday life and place of work.
- To foster a positive and confident attitude towards mathematics.
- To develop an appreciation of the beauty, power and creativity of mathematics.
- To understand the abstract and interconnected nature of mathematics, thereby developing their metacognitive ability to make connections and test hypotheses.
- To inspire learners to take risks and be resilient, developing their strategic and logical reasoning to problem solve, and hence evoking a sense of achievement and enjoyment.

Number

- 4 operations of number:

Number

- 4 operations of number:

Number

- 4 operations of number:

<p>Whole numbers, multiples of ten and some decimals.</p> <ul style="list-style-type: none"> • Rounding and estimating: To the nearest 10, 100 and 1000, whole number and decimal place • Number relationships: multiples, factors, square and prime numbers • Fractions, decimals and percentages: Reading and writing FDP, ordering and simply manipulation • Ratio and proportion: Reading and writing ratio in two parts and simplifying. 	<p>Whole numbers, multiples of ten, decimals and negatives.</p> <ul style="list-style-type: none"> • Rounding and estimating: To the nearest 10, 100 and 1000, whole number and decimal place and significant figure • Number relationships: multiples, factors, square, cube and prime numbers. Including HCF and LCM • Fractions, decimals and percentages: Reading and writing FDP, ordering, four operations and simplifying. • Ratio and proportion: Reading and writing ratio in two parts, simplifying and sharing within ratio. 	<p>Whole numbers, multiples of ten, decimals and negatives.</p> <ul style="list-style-type: none"> • Rounding and estimating: To the nearest 10, 100 and 1000, whole number and decimal place and significant figure and error bounds. • Number relationships: multiples, factors, square, cube and prime numbers. Including HCF and LCM with venn diagrams • Fractions, decimals and percentages: Reading and writing FDP, ordering, four operations, simplifying and quantity of amounts. • Ratio and proportion: Reading and writing ratio in two and three parts, simplifying and sharing within ratio and best buy.
<p><u>Shape</u></p> <ul style="list-style-type: none"> • Mensuration and units of measure: Converting metric units, finding basic perimeter area and volume of polygons. • Geometry: Basic angles facts. • Transformations: Symmetry and reflection on the axis, including basic enlargements and translations. 	<p><u>Shape</u></p> <ul style="list-style-type: none"> • Mensuration and units of measure: Converting metric units and imperial, finding perimeter area and volume of polygons including circles. • Geometry: Angles facts including parallel lines. • Transformations: Symmetry and reflection on the axis, including enlargements and translations. 	<p><u>Shape</u></p> <ul style="list-style-type: none"> • Mensuration and units of measure: Converting metric units and imperial, compound measure of seed and density. Finding perimeter area and volume of polygons including circles and compound shapes. • Geometry: Angles facts including parallel lines and polygons. • Transformations: Symmetry and reflection on the axis, including enlargements and translations with negative and fractional scale factors.
<p><u>Algebra</u></p> <ul style="list-style-type: none"> • Expressions, Equations and formulae: Using a function machine to find missing numbers, solve one and two step equations. Collecting 	<p><u>Algebra</u></p> <ul style="list-style-type: none"> • Expressions, Equations and formulae: solve one and two and three step equations. Collecting expressions with multiple variables and using a formula 	<p><u>Algebra</u></p> <ul style="list-style-type: none"> • Expressions, Equations and formulae: Solve one and two and three step equations including brackets and two unknowns. Collecting expressions

<p>expressions with single variables and using a formula efficiently.</p> <ul style="list-style-type: none"> Graphically. representation: Plot coordinates on all quadrants. 	<p>including reverse operations.</p> <ul style="list-style-type: none"> Graphically. representation: Plot coordinates on all quadrants. Read and draw linear graphs. 	<p>with multiple variables and using a formula including reverse operations - including using pythagoras theorem and trigonometry.</p> <ul style="list-style-type: none"> Graphically. representation: Plot coordinates on all quadrants. Read and draw linear and quadratic graphs.
<p><u>Statistics</u></p> <ul style="list-style-type: none"> Probability: Listing outcomes and making general conclusions about the likelihood of events occurring. Using a probability scale. Collecting, presenting and processing data. Read and draw appropriate graphs, making conclusions on data using averages. 	<p><u>Statistics</u></p> <ul style="list-style-type: none"> Probability: Listing outcomes and calculating probability. Using a probability scale with FDP. Collecting, presenting and processing data. Read and draw appropriate graphs, making conclusions on data using averages, including frequency tables. 	<p><u>Statistics</u></p> <ul style="list-style-type: none"> Probability: Listing outcomes and calculating probability including two events. Using a probability scale with FDP. using the AND and OR rule. Collecting, presenting and processing data. Read and draw appropriate graphs, making conclusions on data using averages, including grouped frequency tables.

Science and Technology

***“In Science and Technology AOLE we endeavour to harness historical, current and emerging approaches to develop confident citizens of tomorrow’s world.*”**

We aim to foster digital approaches, scientific theories and technological innovations that draw from real world social issues, that encourage learners to discuss, develop and challenge rich content for an ever expanding market place, developing into inquisitive, ethically informed, healthy & confident, ambitious & capable, enterprising, & creative global citizens equipped to contribute in a growing digital society”

Digital Technology Department		
Year 7	Year 8	Year 9
<ul style="list-style-type: none"> Textiles - Sustainable textiles focus and how the textiles industry can be more/less sustainable.. Smart technologies used in the textiles industry. Food - Understanding how pupils can promote healthy Living and develop their ability to make informed and justified choices Product design - understanding of structures and how they can be designed to withstand and use the forces that act upon/around them, Understand and use design history to create imaginative and creative solutions to design problems. 	<ul style="list-style-type: none"> Product Design - Research and understand and use modern materials and processes to create solutions to real world problems. Be creative in the use of traditional production methods. Textiles - Understanding of marketing and branding within supermarkets and how decisions are influenced. Food - Development of the use of nutrition and the effects on special diets and their contributing factors. 	<ul style="list-style-type: none"> Food - World at work. Understanding the world of catering and hospitality and the job roles that entail in this profession. Textiles - Using and understanding materials, components and modern processes to create a design suitable for a specific task/user.. Product Design - Using engineering and problem solving thinking to create innovative solutions to problems arising from social situations.
<ul style="list-style-type: none"> Digital Technology Internet Safety <i>Learners to develop a leaflet to share issues and concerns when using the world wide web.</i> Computing Programming Interactive Fiction <i>Learners create an interactive fiction story, including plot, setting and characters. Learners begin to program their stories in Python</i> Computing Data Modelling Ethical Supermarket Spreadsheet Project - <i>Pupils to learn and develop a spreadsheet model for a supermarket</i> Digital Technology 	<ul style="list-style-type: none"> Digital Technology Presenting Information Renewable Energy Presentation Project - <i>Learners to develop a presentation project to raise awareness of new renewable energies</i> Computing - Computational Thinking <i>Learners work on the strands of computational thinking- algorithms, abstraction, decomposition, pattern recognition and flow diagrams</i> Computing - Welsh Music Website <i>Learners consider ways of presenting information through web design. Learners develop a web site to promote Welsh music,</i> 	<ul style="list-style-type: none"> Computing Big Data Project <i>Learners will design, and evaluate a new Internet of Things device (IoTs). Learners will consider the social, legal and ethical effects of their device on society</i> Computing Cyber Security <i>Following on from the Big Data project, learners will continue to consider the ethical and legal implications of their device by considering the ways to keep their device safe and ways the manufacturer can use cybersecurity to keep the device safe from various attacks</i> Digital Technology

<p>Promoting the Eisteddfod Learners collaborate to create a series of promotional materials to promote the Eisteddfod using Curriculum Cymreig</p> <ul style="list-style-type: none"> ● Digital Technology Fake News Project Learners consider the dangers of smartphones, along with bias, fake news and reliability of information ● Computing Python Turtle - Learners begin to understand how to program a computer using Python Turtle ● Computing Computer Components Learners discuss and develop ideas for three different computer systems: a doctors surgery, a design company & and a cyber cafe ● Computing History of Computer Science Learners consider the roles of important historical figures in the emergence of computers and their influence on society 	<p><i>both historical and contemporary</i></p> <ul style="list-style-type: none"> ● Computing Web Design MAD Collaboration Music Concert Project MAD Collaboration - continuing the web design theme, learners develop a social media campaign to promote the Eisteddfod. Learners create posters, leaflets and social media materials to promote the event. ● Digital Technology Data Modelling Cardiff Airport Spreadsheet Task. Learners create a spreadsheet model to promote different trips from Cardiff Airport. Learners are encouraged to consider the ethical responsibility the airport has when considering travel routes. ● Digital Technology ● Data Handling Internet Per Country Database Project Internet Per Country Database Project. Learners develop a database to consider whether the internet is a human right all should have access to. ● Computing Computer Networks Sending Information - Learners to develop an understanding of how data and information is sent and received over different computer networks 	<p>Data Modelling Going to University Spreadsheet Task. Learners develop a spreadsheet model that helps them consider their future plans and create a financial budget</p> <ul style="list-style-type: none"> ● Computing Programming Python Skills Python Skills Projects & Interactive Fiction Story. Learners practice programming skills in Python before creating an interactive fiction story. This project supports learners who intend to take Computer Science at GCSE. ● Computing Algorithm Design Driverless cars Algorithm design using Edison Robots. ● Computing Programming Greenfoot Game Design Ethical Problem Learners will create a game to highlight problems faced by global warming ● Computing Searching & Sorting Algorithms Learners develop models to sort and search small data sets. ● Presenting Information (Collaboration with Welsh Baccalaureate) Sustainable Development Goals Learners to pick one of the UN's STG to present and raise awareness
<ul style="list-style-type: none"> ● Starting Science - Introduction to basic science skills; planning, carrying out, collecting data, analysing data, evaluating. ● Crime Scene Investigation - Solve a murder mystery by using learnt science skills, uncovering new scientific theory, analysing and evaluating evidence in 	<ul style="list-style-type: none"> ● Casualty (Biology Unit) Through the medium of biology learn theory and scientific skills that will enable a casualty unit to run. Then use and develop the skills to solve a series of "emergencies". ● Castaway (Chemistry Unit) - Through the medium of chemistry learn theory and scientific skills that will 	<ul style="list-style-type: none"> ● Biology - Start GCSE Double Award physics course. Unit 1: Cells & Crossing Membranes, Unit 2: Respiration, Respiratory System. Unit 3: Digestions (if time allows). ● Chemistry - Start GCSE Double Award physics course. Unit 1: Elements, Compounds & Mixtures. Unit 2: Reactivity.

<p>the form of scientific data to reach valid conclusions that can be collated into evidence to solve the crime.</p> <ul style="list-style-type: none"> • My Tiny Big World - To look at how the world around us works and engage with that world from a microscopic and then macroscopic perspective. To understand • The Dig - To explore an archeological dig site and to uncover objects that will be analysed using scientific experimental skills. 	<p>enable a person to survive on a desert island. To look at sustainability by creating a viable water source, shelter, energy production, extracting metals from ores with an aim to create tools/weapons.</p> <ul style="list-style-type: none"> • Theme Park Physics Unit Through the medium of physics learn theory and scientific skills that will enable a person to explore the science behind many of the rides that feature in a theme park. To use and extend that knowledge to begin to create rides and attractions. To then test those creations and evaluate the performance with an aim to improve. 	<ul style="list-style-type: none"> • <i>Physics - Start GCSE Double Award physics course. Unit 1: Electric Circuits. Unit 2: Generating Electricity. Unit 3: Domestic Electricity (if time allows).</i>
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